

**STUDENT ATTENDANCE AND ITS RELATIONSHIP TO ACHIEVEMENT
AND STUDENT ENGAGEMENT IN PRIMARY CLASSROOMS.**

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

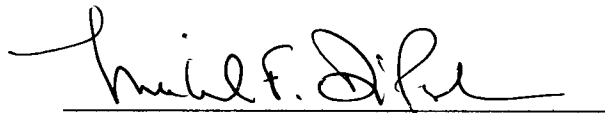
by
Roberta Adams Thayer-Smith
May 2007

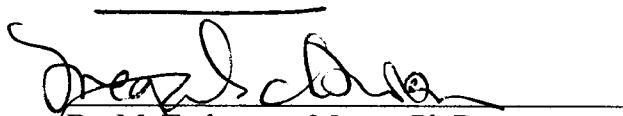
STUDENT ATTENDANCE AND ITS RELATIONSHIP TO ACHIEVEMENT AND
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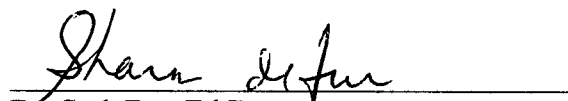
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One cannot change the direction of the wind. One can, however, trim their sails.

Anonymous

DEDICATION

In honor of my family roots, beginning with my grandparents, Dr. Vivian Thayer and Florence who always believed in me as an educator, my parents, Robert and Nell Thayer who provided the foundations and to my uncle, Dr. H. Standish Thayer, who took me back to my roots. To my first sister, Priscilla whose knowledge, intellect and keen sense of beauty, rhyme, pattern, detail and perspective in everything viewed and touched-
-this dissertation is dedicated to you.

Whatever the mind of man can conceive, it can achieve.

~W. Clement Stone

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ACKNOWLEDGEMENTS

As Edmund Hillary said, “it is not the mountain we conquer but ourselves.” This has been a worthwhile, exhilarating, and yes, demanding, educational journey, a journey I could not have completed alone. First and foremost, I would like to express my gratitude and appreciation to the members of my dissertation committee who shared in my enthusiasm for this topic and provided guidance, patience and expertise in making this dissertation possible: Dr. Michael DiPaola, my committee chair, Dr. Megan Tschannen-Moran and Dr. Sharon deFur. To you, I say, “I have been educated by the very best in field of education and I am extremely privileged and honored to have learned from you at The College of William and Mary, School of Education, Education, Policy, Planning and Leadership Program. A special thanks to Dr. James Stronge who encouraged me to apply to the School of Education by saying “ you’re just the kind of person we want here” and fondly to Dr. Robert Hanny’s enthusiasm and inspiration. After completing my independent project - a fantastic side excursion into my granddad’s writings and contributions to progressive education, Dr. Hanny uttered to me, “the apple doesn’t fall far from its tree, does it?” Lastly, once I could surface from the in-depth readings from the “killer” two-week Cross Disciplinary Perspectives in Education summer course, I want to thank Dr. VanTassel-Baska for bringing theories of learning, philosophy and practice together and for encouraging me to continue investigating student attendance.

Through this long and arduous journey, stood my steadfast husband John and my wonderful daughter Virginia, who have supported and encouraged me on the home front in so many ways. Sisters are sisters, and how blessed I am to have the best, Priscilla, Barbara, and Pam, my brother-in-law George for his editing skills, my life long friend Maureen, my loyal Averett College roommates, and to my ‘down-under’ colleagues and friends, Susan, Sue and Janine who kept encouraging me by saying “this makes sense, I think you are on to something.”

I also want to express thanks to Misty Kirby for assisting me with the classrooms observations that enabled me to start analyzing the data in a prompt manner and to Adam Simmons, my Excel guru. I am forever grateful to each and every one of you.

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**STUDENT ATTENDANCE AND ITS RELATIONSHIP TO ACHIEVEMENT
AND STUDENT ENGAGEMENT IN PRIMARY CLASSROOMS.**

ABSTRACT

An important key to students' academic success is regular attendance at school. Nowhere is this more important than in the earliest grades where literacy foundations are established and where patterns of nonattendance often culminate in early school leaving.

This study was conducted to investigate student attendance, and its relationship to achievement and student engagement in a midsize urban Virginia school district with 15 Title I and 10 non-Title I schools. Attendance and achievement data were analyzed and no significant relationship was found.

Analyzing data from 499 elementary Title non-Title and I I classrooms found a significant difference between attendance in Title I and non-Title I classrooms. Grade three attendance however was significantly higher from grades one and two regardless of its Title I or non-Title I location. Grade 3 is a high stakes Virginia Standards testing grade.

In investigating the relationship between student attendance and student engagement, observations found in 30 grade one and grade two Title I classrooms of student's 'on task' and 'off task' behaviors found a significant correlation between attendance and engagement. A significant difference was found between the engagement of students in classrooms where attendance (ADA%) was 96% and above and engagement in classrooms where ADA% was 94% and below. In classrooms where the student attendance was higher, a greater number of students were 'on task' and where attendance was lower, a greater number of students were 'off task.'

ROBERTA ADAMS THAYER-SMITH

SCHOOL OF EDUCATION

EDUCATION POLICY

PLANNING LEADERSHIP PROGRAM

THE COLLEGE OF WILLIAM AND MARY IN VIRGINIA

CHAPTER 1

The Problem

Introduction

During the last three decades, student nonattendance at public schools has attracted the attention of policy makers, educators, and business leaders (Carruthers, 1993). Today, as a result of federal educational priorities and legislative policies, the nation's attention is focused on student nonattendance, truancy, and dropout statistics, with data far worse than previously acknowledged. As state officials scramble to address the political fallout of such statistics, an appreciation for the complexities surrounding the increased resistance of students to attending school has caused stakeholders to take a much broader view of the policy dilemma (Lehr, Hansen, Sinclair, & Christenson, 2003). The federal, state, and local government mandates are requiring increased accountability for student attendance, especially in schools with historically low attendance rates.

Reflecting the common belief that academic success is contingent on students being in school, the No Child Left Behind (NCLB) Act requires states to provide "additional indicators" of school and school district performance. One acceptable indicator of elementary and middle school performance is student attendance documentation. Local education authorities (LEA)'s with Title I schools that opt to use attendance as an indicator of achievement must track monthly attendance and provide to state officials average daily attendance (ADA) percentages disaggregated by subgroups. Each state is allowed to propose its own ADA rate in order to measure adequate yearly progress (AYP). Virginia's Department of Education expects all Title I schools to meet or exceed the ADA rate of 94%. Title I schools that do not show attendance AYP for two consecutive years are identified as "Needing Improvement." Sanctions increase in

severity if a school fails to demonstrate AYP in attendance for two consecutive years (Northwest Regional Educational Laboratory, [NWREL] (2004). Title I funding now is partially based on average daily attendance rates (Ford & Sutphen, 1996).

Student attendance affects student achievement (DeKalb, Isaac, & Michael, 1999; Johnston, 2000; King, 2000; Lamdin, 1996; Roby, 2004). Many schools, particularly those with culturally and linguistically diverse students and students from low-income homes struggle to keep attendance rates high (Brandt, 1992; National Research Council & Institute of Medicine, 2003; Wimberly, 2002). Strategies for increasing attendance have included tougher attendance policies, stepped up enforcement of attendance laws, community and school-based intervention programs, counseling, and family mediation (Railsback, 2004). More recently, research on student attendance has focused on such school contexts as climate, organizational structures, curriculum, and relationships and interactions between staff and students as contributors to the nonattendance of students (Bryk & Thum, 1989; Lee & Burkam, 2003; Railsback, 2004). Very little research has focused specifically on what a teacher does in the classroom or teacher behaviors that may affect student attendance, even though it has been demonstrated decisively that effective teachers can make the difference as to whether a student succeeds in school (Baker, Sigmon, & Nugent, 2001; Bourke et al., 2000; Bryk & Thum, 1989; Haycock, 1998; Hinz, Kapp, & Snapp 2003; Lan & Lanthier, 2003; Lee & Burkam, 2003; Railsback, 2004; Rothman, 2001). Succeeding in school depends on attending school and students' engagement with the material being studied.

Engaging students in learning requires teachers to develop effective instructional methods. It is understood that teaching behaviors are considered alterable and controllable (Greenwood, Horton, & Utley, 2002; Marks, 2000; Yair, 2000) through quality professional

development and mentoring opportunities. Improved teaching instruction has increased student engagement, achievement, and other student outcomes including nonattendance, truancy, and early school leaving (Fischer, 2005; Hattie, 2003; Lee & Burkam, 2003; Marks, 2000; Yair, 2000).

Student engagement, defined as the "attention, interest, investment and effort students expend in the work of learning," is an essential element of school success (Marks, 2000, p.155). Engagement is considered a marker of academic achievement across diverse populations (Finn, 1989; Finn, Pannoza, & Voelkl, 1995; Klem & Connell, 2004; Marks, 2000). In recent years, student disengagement has become linked to student nonattendance, "school refusal," and drop-out behaviors (Hinz et al., 2003; Kearney, 2003; Klem & Connell, 2004; Lehr et al., 2004; Olson, 2006; Railsback, 2004; Smink & Reimer, 2005; National Research Council & Institute of Medicine, 2003; Rumberger, 1995). Despite the importance of the construct student engagement, research studies over the past two decades have documented low levels of student engagement, particularly in high schools (Bridgeland, DiIulio, & Morison, 2006; Newmann, 1992; Steinberg, 1996).

As definitions of engagement have been influenced by psychological and educational paradigms (Skinner & Belmont, 1993), conditions that promote or undermine engagement have been identified. Nonattendance and drop-out behaviors are viewed as outward symptoms of pervasive disengagement from schools' academic purposes and programs (Finn, 1989; Klem & Connell, 2004; Lehr et al., 2004; National Research Council and Institute of Medicine, 2003; Newmann, 1991, 1992; Steinberg, 1996; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). Students' early schooling experiences affect their academic performance, behavior, and attitudes. In addition to the consequences of social and economic influences on student learning, patterns

that result from students' cumulative educational experiences at their schools are powerful predictors of whether or not they graduate (Bryk & Thum, 1989; Carruthers, 1993; Lehr, Sinclair & Christenson, 2004; Railsback, 2004; Roby, 2004; Wimberly, 2002; White, n.d.). The more motivated and engaged the student is in learning, the more likely he or she will finish high school or meet other benchmarks of student success (Blank, 1997; Dev, 1997; Kushman, Sieber, & Harold-Kinney, 2000; Woods, 1995).

Statement of the Problem

The increased pressure on Title I schools to meet or exceed the ADA of 94% in the state of Virginia has highlighted the importance of effective elementary school learning experiences. However, very little research has focused specifically on student engagement in elementary classrooms and its possible effect on student attendance. Much of the research is centered at the high school level, where student disengagement is seen as a contributing factor in truancy and early school leaving (Bridgeland et al., 2006; National Research Council and Institute of Medicine, 2003; Railsback, 2004; Smink & Reimer, 2005). Very few studies have focused on elementary schools, despite a recognition that students considered at risk of dropping out have been identified as early as third grade on the basis of poor attendance patterns, unsuccessful school experiences and academic performance, and behavioral difficulties (Finn, 1989; Klem & Connell, 2004; Lehr et al., 2004; Rumberger, 1995). Working to help students establish success in the earliest grades would seem to be more feasible than working to rectify negative experiences when the student becomes an adolescent. For this reason, research at the elementary school is needed.

Purpose and Research Questions

An important key to students' academic success is attendance at school on a regular basis. This study examines the relationship between classroom attendance and academic achievement. It will also examine the relationship between classroom attendance and student engagement. This study adds to the body of knowledge on student attendance and the impact of attendance on student achievement. Classroom instruction that engages students in content and learning is the central theme of this paper. By focusing on the construct of engagement as a key factor in the promotion of student attendance, this study contributes to the literature on student engagement or best practices that influence students in their decision to attend school. Four research questions were investigated.

1. Is there a significant relationship between classroom attendance rates and academic achievement?
2. Is there a significant difference between the classroom attendance rates of students in Title I schools and the classroom attendance rates of students in non-Title I schools?
3. Is there a significant relationship between classroom attendance rates and student engagement?
4. Is there a significant difference in classroom attendance rates between students in grade three (SOL testing grade) and students in first and second grades (non-testing grades)?

Question 1 examined classroom student attendance rates and their relationship to student achievement. Prior studies indicate that classrooms with higher ADA% have greater gains on achievement as compared to classrooms where ADA% is lower. Question 2 provides a context for this study by examining the classroom attendance rates of students in Title I schools and the

classroom attendance rates of students in non-Title I schools. Since 2001, Title I schools have had to meet federal requirements of having 'highly qualified' teachers in Title I settings. This question examined whether a student's socio-economic status (SES) contributes to the nonattendance rate of students (Bridgeland, DiIulio, & Morison, 2006; Railsback, 2004; Smink & Reimer, 20052005).

Question 3 examined the relationship between classroom attendance and student engagement. Prior evidence indicates the more engaged students are in the classroom, the better classroom attendance will be.

Question 4 examined the classroom attendance rates of students in grade three (Virginia Standards of Learning testing grade) and students in first and second grades (non-testing grades).

Significance of this Study

Young students usually enter school with a desire to learn (Alexander, Entwisle & Horsey, 1997; Skinner & Belmont, 1993, Klem & Connell, 2004). Teachers, the school environment, and classmates can influence that desire to learn (Lumsden, 1994). Student engagement begins to wane as students move from elementary school into the higher grades (Anderman & Midgley, 1998; Finn, 1989). Student disengagement and nonattendance patterns begin early in the schooling journey and are usually explained away as a problem with the student or a family issue. However, despite diverse family values, beliefs, and outside school conditions, effective teachers can serve as a buffer between what a student brings into the classroom and what the student learns within the classroom. Teachers influence and organize for student learning (Anderman & Midgley, 1998). Thus, a student's rate of learning is influenced by the teacher's ability to establish and motivate student engagement through effective

instruction (Brophy & Good, 1986; Skinner & Belmont, 1993). It is the quality of teaching and the level of engagement that bring students back to school every day.

What happens in the classroom is at the heart of keeping students in school and what students experience during their early years of schooling is key. As Slavin (1999) stated, there are no guarantees that success in the early grades will guarantee success in later schooling, but failure in the early grades virtually ensures failure in later schooling (p. 105).

Summary of Methodology

Student attendance and its relationship to student achievement was examined in this descriptive and correlational study. Specifically, the study explored (a) student attendance and its relationship to student achievement, and (b) student attendance and its relationship to the level of student engagement found in randomly selected classrooms. Quantitative and qualitative methods of data analysis were used. The unit of analysis for this study was the classroom.

Limitations

Limitations are those limiting conditions or restrictive weaknesses of the study that the researcher will attempt to control.

This study has several limitations:

1. The attendance data used for this study was collected during the 2005-2006 school year.
2. Only one year of attendance data was examined in this study. The degree to which the results can be generalized to a larger population therefore is limited. Longitudinal average daily attendance data would aid the reliability of the study.

3. The pre- and post- PALS screening instruments have different benchmark scores and students are given a slightly different instrument in the spring. However, the test continues to measure the 5 basic literacy areas; phonological awareness, alphabet knowledge, knowledge of letter sounds, spelling, concept of word, word recognition in isolation, and oral passage reading.
4. For the purpose of this study 2005-2006 attendance data were compared with engagement data collected from 2006-2007 teacher classrooms. Mortality may be an internal threat to validity.
5. Average daily attendance data depends on accurate daily attendance documentation by teachers and an effective data-collection system.
6. This study was limited to finding the degree and direction of a relationship between two variables and cannot guarantee that one factor necessarily causes the other to happen. Additional research would be required to determine a causal connection.

Delimitations

The generalizability of this study will be a function of the sample group and the analysis employed. There were a number of delimitations in this study.

1. Classrooms used in this study were randomly selected. Two observers collected engagement data from these randomly selected classrooms. One observer observed in approximately half of the classrooms selected, the second observer observed and collected engagement data from the other half of the classrooms. Experimenter bias was controlled for.

2. Individual behavior may be altered because the students know they are being observed in classrooms. The Hawthorne effect could change the level of engagement, especially for younger students.
3. Students in the classrooms for the fall and the spring testing may not be the same students. Mobility within the district is a factor.

Definitions of Key Terms

Average Daily Attendance (ADA %). A collection of daily attendance data from each classroom, which is calculated on a monthly basis as a percentage. Schools are able to access attendance reports through student information retrieval systems for analysis. Administrators use these reports to monitor individual teacher, classroom, and school site attendance.

The Phonological Awareness Literacy Screening (PALS). A pre- and post-test criterion-referenced screening assessment tool used in Virginia that is designed to assist teachers when identifying students in Kindergarten through third grade who would benefit from additional instruction in reading. This measure indicates a need for early intervention services for those students who fall below the benchmark score.

Engagement is defined as a psychological process, specifically, "the attention, interest, investment, and effort students expend in the work of learning" (Marks, 2000, p. 155). For this study, a student demonstrated engagement through behaviors that observers described as showing effort, concentration, attention to task, asking questions, and contributing in interactions (Birch & Ladd, 1997; Finn & Voelkl 1993). These behaviors were counted as "on task" behaviors. The researcher operationalized the construct of engagement by measuring the number of students with "on-task" behaviors within given visual time sweeps of the classroom. On-task

behavior was characterized as attentive and responsive, as indicated by writing, reading, and hands-on activity. Off-task behavior was characterized as inattentive, (distracted or daydreaming), doing other work, engagement in conversation with peers, disturbing others, and playing (DiPaola & Hoy, 2008).

Children who are engaged show sustained behavioral involvement in learning activities accompanied by a positive emotional tone. They select tasks at the border of their competencies, initiate action when given the opportunity, and exert intense effort and concentration in the implementation of learning tasks; they show generally positive emotions during ongoing action, including enthusiasm, optimism, curiosity, and interest (Skinner & Belmont, 1993).

Student Engagement Data Collection instrument (DiPaola & Hoy, 2008). An adapted observation tool designed for use in elementary classrooms. The tool allows for a quick recording of the number of students demonstrating "on task" and "off task" behavior.

Literacy Block. Coolum District's instructional policy requires elementary teachers to devote the first 90 minutes of each day strictly to literacy-based activities and reading groups. School districts in Virginia decide the time of day allotted for reading instruction within the 990 required hours. The Standards for Accrediting Public Schools In Virginia 8 VAC 20-131-80 require elementary schools to have a minimum of 75% of the annual instructional time of 990 hours devoted to instruction in the disciplines of English, mathematics, science, and history/social science.

Student attendance is a complex issue and a topic of discussion in most school districts across the nation. Regular student attendance is an important key to students doing well in school and for future success beyond school (Alexander et al., 1997; Railsback, 2004; Rothman, 2001). While the non-attendance of students has historically been related to factors outside the school,

other research has investigated how student disengagement while at school relates to decreased attendance. Chapter 2 of this study reviews the literature related to student attendance and student engagement.

CHAPTER II

Review of Literature

Introduction

Student absenteeism plagues public schools in the U.S. and in most countries (Rothman, 2001; Williams, n.d.). According to the most recent U.S. figures, an estimated 1.2 million teenagers did not complete school in 2005-2006. Based on that estimate, it is projected that 1.6 million 9th graders presently enrolled in the 2006-2007 school year will not graduate in four years (Olson, 2006). Major U.S. cities report absenteeism as high as 30 % (United States Department of Education, [USDOE] 1996), and graduation rates for members of minority groups and for boys are lower than the average.

Student absenteeism has become one of the most persistent concerns of school administrators (Levin-Epstein, 2002; Reid, 1995; Rothman, 2001) who face increasing accountability demands from local, state, and federal officials. While data on dropout and absentee rates are abundant, the actual data systems and quality control measures used in reporting the numbers also draw critical attention and question. Without the establishment of adequate systems or formulas, attendance calculations cannot be reliable or meaningful. Although compulsory attendance laws and educational services are in effect in every state to ensure that students attend school, data suggests that students are not taking advantage of such services. Compulsory attendance laws are being ignored by students who regulate their own access to school.

Historical Context of Compulsory Attendance Law

Between the pre-Revolutionary period and the mid-1800s, the decision as to when and how a child would be educated was left primarily to the discretion of parents. Universal access to

elementary school arose within a context of struggle for social improvement and a more educated workforce. Townships, traditionally small and with homogeneous values, began to change with the upsurge of industry and the influx of immigrants. This brought poverty, crime, and social diversity that changed the social and moral fiber of these townships. Within this context, Horace Mann began the Common School, believing that an education could unify heterogeneous populations and could become the great economic equalizer to reduce class conflicts (Fowler, 2004; Gutek, 2005). In addition, the common school could supply a more educated and skilled workforce to the factories.

Common School reformers were advocates for regulatory policies, and in 1852, Massachusetts enacted the first compulsory school attendance law, which later spread to most states outside the South. These laws were designed to ensure a minimum of formal education in order to close the disparity between the poor and the wealthy, provide a means to “Americanize” a continuing stream of immigrants, and limit the use of child labor. States legislated compulsory attendance laws at different times, reflecting a diversity of formal commitment by states to public schooling and their ability to engage economic, social, and organizational resources. By 1918, all existing states had adopted such laws (Richardson, 1980).

Initially, state compulsory school attendance laws required all children between the ages of 8 and 14 to attend school for at least 12 weeks per year (Ensign, 1921). Exceptions to this law were granted to parents of children with mental and physical disabilities, parents who verified that their child had attended another school for the same time period, children who demonstrated proficiency of the subject matter, and children who lived in impoverished conditions. Typically, local school officials and the city treasurer were responsible for enforcement, and monetary fines up to \$20 could be imposed on violators (Landes, & Solmon, 1972). Today, every state has

implemented and shaped some form of compulsory school attendance law with state-specific exemptions for school attendance. Student absenteeism historically, can be traced back to the compulsory schooling movement of the 19th Century and state legislation that followed in its wake. Today the issue of absenteeism centers on students' failure to comply with compulsory attendance requirements.

National Perspective. Economic, political, and social conditions can drive state requirements in matters of compulsory school attendance. National trends have seen the minimum age for schooling lowered, or the maximum age increased with a large variance in beginning school ages. More than half the states require students to begin their formal schooling by age 6, while seven states, including Virginia, begin as low as age 5. Students in two states, Pennsylvania and Washington, begin school as old as age 8. Some states use a student's date of birth to determine the beginning and ending dates for compulsory education, other states require a student to begin school when he or she turns 6 years of age during the school year and require that students remain in school until completion of the school year in which he or she turns 17 years of age. Four states, Arizona, Montana, Vermont, and Wyoming require students to remain in school through a specified grade (Education Commission of the States [ECS] 2006).

Between 1984 and 2005, 14 states raised the school-leaving age to 17 or 18 years, sparking much debate among various stakeholders. Opponents argue that forcing unmotivated students to stay in school could make learning more difficult for those who wish to be there and that forcing disruptive students to attend school could incite violence. Just as compulsory attendance laws affected child labor in the past, businesses and farmers today argue that raising the school-leaving age reduces the potential labor pool. Stakeholders who favor older school

leaving ages argue that neighborhoods will be safer, college attendance rates will increase, and juvenile delinquency rates and teen pregnancy will decrease (Exstrom, 2001).

Virginia. The Virginia Commonwealth's compulsory school attendance requirements first appeared in the 1869 Constitution, which authorized the General Assembly to "make such laws as shall not permit parents and guardians to allow their children to grow up in ignorance and vagrancy." However, sweeping authorization to make compulsory education laws for children between the ages of 8 and 12 did not come into effect until 1902. They were not exercised until 1908 while subject to local referendum (Harris, 2001). In 1920, the Constitution granted the legislature discretion to "provide for the compulsory education of children of school age." Statutory amendments between 1922 and 1928 altered attendance ages to 8 and 14 and 7 and 15, respectively. In 1944, the compulsory age increased to 16 years (Harris, 2001). The entry age was lowered to age 5 in 1976, where it remains today. A 1989 amendment raised the compulsory attendance age from 17 to 18 (Harris, 2001).

Under current Virginia law, children who will have reached their 5th birthday on or before September 30 of any school year and who have not passed their 18th birthday must attend a public, private, parochial, or denominational school or have an approved tutor or home instruction. The most recent revisions to this law have focused on older students rather than those at the entry level. Legislation adopted in 1990 clarified the compulsory attendance law as applied to those children under age 18 who are either in the custody of the Department of Youth and Family Services or have been adjudicated as adults (Harris, 2001). Although ultimate authority for the enforcement of compulsory attendance rests with the Virginia Board of Education, actual responsibility for compliance is entrusted to the school division superintendent or attendance officers employed by the school division.

Political Context. The 10th Amendment to the U.S. Constitution reserves any powers not delegated to the federal government to the states. Therefore, limited federal involvement with school attendance has occurred with one exception: the U.S. Supreme Court reaffirmed compulsory school attendance laws to ensure equal educational opportunities for all children in *Brown v. Board of Education* in 1954.

Recently, instances of federal action include the No Child Left Behind Act of 2001 (NCLB). The purpose of NCLB, signed into law by President George W. Bush on Jan. 8, 2002, is to reform U.S. schools by mandating stronger accountability results (USDOE, 2002). The Elementary and Secondary Education Act (ESEA), enacted in April 1965, aimed to provide guidance and funding to public K-12 schools. As part of President Lyndon B. Johnson's War on Poverty, Title I programs were established to provide educational programs and funding to economically disadvantaged students. Over the years, ESEA has allocated billions of dollars to schools with high populations of economically disadvantaged children through Title I. ESEA continues to exert a powerful influence on education and public policy some four decades after its inception (Northwest Regional Educational Laboratory, [NWREL] 2004).

Congress reauthorized the most sweeping reform yet of ESEA in 2001 when the NCLB Act was passed, renewing the federal commitment to closing achievement gaps (NWREL, 2004). NCLB establishes a framework for raising student achievement and adds accountability provisions to Title I grantees. These provisions hold states, school districts, and individual schools accountable for improving the academic achievement of all students.

NCLB established five indicators to measure schools and districts in their Annual Yearly Progress (AYP) requirements. AYP must be met by demonstrating proficiency in all subgroups of the school population (racial/ethnic groups, low-income, disabled, and English language

learners), both in math and reading; participation in testing by subgroup for both math and reading; and an “additional academic indicator” (USDOE, 2002). Student attendance is considered an additional indicator for elementary and middle schools to meet AYP, an academic measure for “safe harbor” calculations. Disaggregated attendance data is required by subgroups. Each state is allowed to nominate its own AYP attendance target rate, Virginia’s target being 94%. For AYP in grades K-8, the average daily attendance (ADA) rate is to be used; for high schools, AYP is based on student drop-out numbers. Reporting ADA percentages to meet NCLB guidelines has caused predicaments for some school districts. First, Title I funding now is partially based on meeting 94% average daily attendance (Ford & Sutphen, 1996). Second, state education departments began to realize that local education authorities (LEA) were defining, and, therefore, calculating attendance and drop-out rates with different formulas (Bridgeland et al., 2006).

Defining Student Absenteeism

Over the past decade, the increased accountability requirements of NCLB have led states either voluntarily or under forced mandates to develop explicit attendance policies, define criteria for unexcused absences and truancy, establish and clarify guidelines for referring a student as a habitual truant, and prescribe sanctions for parents who violate compulsory attendance laws. Clarifications were found necessary because interpretations of attendance policies and procedures varied greatly among schools, even from within the same district. Some schools defined truancy as being absent from school for no legitimate reason, while others introduced a concept of time into definitions. Unexcused absences often fall under the term “truancy” yet many districts have not defined an unexcused absence. Many districts now provide situation-specific definitions (Reid, 1995). With such a variety of definitions, formulas, and

calculation procedures the reliability and validity of the data is being questioned (Bridgeland et al., 2006; Olson, 2006). For example, for more than a decade, official drop-out figures came from a consensus definition used by the National Center for Education Statistics (NCES), which relies on both household surveys and data from the states in order to report on high school drop-outs and high school completers. One problem with this method is that only 37 states conform to the common drop-out definition that NCES uses. Some populous states that were left out of the calculations have large enrollments, including California and Florida. The national data also is clouded because some states consider students in adult GED programs as being enrolled in school, while the NCES definition considers them to be drop-outs (Bridgeland et al., 2006; Lewis, 2004).

Risk Factors

Potential risk factors for absenteeism have been grouped into three categories: (1) social background (e.g., race/ethnicity, gender, socioeconomic status (SES), family structure, living conditions, frequent home relocations, lack of child supervision); (2) academic background (e.g., poor academic achievement, test scores, history of repeating grades,) and (3) academically related behaviors such as engagement with school, performance, frustration with school work, course completions and failures, truancy, and school disciplinary encounters (Bourke et al., 2000; DeKalb et al., 1999; Ensminger & Slusarcick, 1992; Lee & Burkam, 2003; Reid, 1995; Rothman, 2001; Volkmann & Bye, 2006). These risk factors compound the problem by creating a circular pattern of nonattendance, making it hard to identify the original reason behind the absenteeism.

Reasons for Nonattendance

School Factors. Research in the 1960s and 1970s indicated student socioeconomic status as the most important factor affecting student achievement. In fact, the Coleman Report published in 1966 suggested that schools were found not to have a significant impact on student achievement (Coleman et al., 1966; Jencks, 1972). Today, school-based factors have been directly linked as contributors to students' nonattendance and lower student achievement (Alexander et al., 1997; Bourke et al., 2000; Bridgeland et al., 2006; National Research Council & Institute of Medicine, 2003; Olson, 2006; Roby, 2004; Railsback 2004; Shannon & Bylsma, 2003; Smink & Reimer, 2005; Wimberly, 2002; Woods, 1995). School-based factors include inadequacies and inappropriateness of the schooling process itself; procedures, school culture, school structure, curricula, school climate (Baker et al., 2001; Smink & Reimer, 2005); student engagement (Hinz et al., 2003); and school size (Cotton, 1996). School-based factors would also include effective teachers. Many of these school supports have been found to protect high-risk students from an undesirable academic fate (Garmezy, 1993; Garmezy & Masten, 1986; Werner, 1993).

Some researchers believe a good starting point for increasing student attendance is an understanding of the reasons students do not want to be in school. Delpit (1988) explored relationships among low socioeconomic black students in U.S. classrooms and referred to their lack of voice as the “silenced dialogue”. Recent studies investigating absenteeism have taken up Delpit’s challenge and have given students a real voice. In qualitative research studies, students have cited the following reasons for not attending school: classes were boring, irrelevant, and a waste of time; they did not have positive relationships with teachers or with other students; they were suspended too often; they did not feel safe at school; they could not keep up with

schoolwork or were failing and timely interventions were not put into place; classes were not challenging (worksheets, reading and lectures were the predominant activities cited); and students could skip class and still receive credit (Bridgeland et al., 2006; Clement, Gwynne, & Younkin, 2001; Railsback, 2004; Rohrman, 1993; Wagstaff, Combs, & Jarvis, 2000).

Brush and Jones (2002) interviewed approximately 100 students enrolled in seven alternate high schools in Oregon and concluded that regardless of background or environment, students wanted to be respected for who they were, wanted their teachers to push them to do their very best, and wanted the assistance needed to achieve success. The students in this study also communicated that they did not feel welcomed at school, people did not care about them enough to follow up on absences, and that they had not had a significant relationship with a teacher in all their schooling years, factors which contributed to their truancy and drop-out (Brush & Jones, 2002). These factors that contribute to nonattendance must be addressed and are within the realm of teachers to control (Bridgeland et al., 2006; Shannon & Bylsma, 2003; Williams, n.d.; Wimberly, 2002).

Research has identified a student's attitude toward school as a significant factor in combating truancy. From an early age, students are quick to perceive the attitudes and values of persons around them. Negative attitudes and environments can translate into poor self-image, low self-esteem, feelings of social incompetence, and a perception that school is not a favorable place to be. It is the responsibility of the administrators and the teaching staff to design schooling experiences that encourage, rather than coerce, students to attend (Gullatt & Lemoine, 1997; Lotz & Lee, 1999; Watkins & Watkins, 1994).

Teacher factors. Teacher factors have been linked to the nonattendance of students. Bridgeland (2006) found when interviewing students who had dropped out that they would have

stayed in school if teachers had had stronger communication ties with their parents and if instruction was more engaging, as well as more individualized to meet their specific educational needs. Bourke and colleagues (2000) found higher attendance among indigenous Australian students when the students believed teachers wanted them to attend school; when students could see the positive results of attending school such as, succeeding in school subjects and having better job opportunities; and when teachers kept in touch with parents. When students perceive that teachers do not care enough to follow up on absences, motivation for attendance is not high (Enomoto, 1997). Other teacher factors influencing attendance are inadequate pre-and in-service training of teachers; inability of teachers to meet the diverse cultural and learning styles of the students (Baker et al., 2001; Hinz et al., 2003); poor teacher/student relationships (Finn & Voelkl, 1993); teacher attitudes; low student expectations by teachers for academic achievement and lack of challenging and interesting curriculum that engages students in learning (Bridgeland et al., 2006; Bryk & Thum, 1989; Bourke et al., 2000; Lan & Lanthier, 2003; Lee & Burkam, 2003; Railsback, 2004; Rothman, 2001).

Absenteeism is the result of many factors, many of which are directly related to what schools and teachers do on a daily basis. Solutions to the nonattendance of students must come from enhancing classroom instruction and building professional capacity and responsiveness among teachers, rather than looking outwardly for solutions and blaming the student, family, and socioeconomic conditions.

Consequences of Nonattendance

Absenteeism for reasons other than illness increases with each grade level and a pattern of nonattendance in elementary school is a good predictor of drop-out behavior (National Center of Educational Statistics, 2002; Williams, n.d). One study of African-American males indicated

that for students truant from elementary and high school, 75 % did not graduate (Alexander, et al., 1997; Roby, 2004). A pattern of nonattendance and early school leaving affects not only the individual student, but the family, the schools, and the community at large. Early school leavers are more likely to be unemployed for longer periods of time, become homeless, be caught in the poverty cycle, be dependent on welfare, and be involved in the justice system (The National Center for School Engagement, 2005; DeKalb et al., 1999). Serious behavioral issues such as substance abuse, involvement in criminal activity, and incarceration have been related to student nonattendance (Alexander et al., 1997; Baker et al., 2001; Volkmann & Bye, 2006). The consequences of student nonattendance include loss of instructional time, lack of continuity of instruction, and jeopardizing state funding when attendance is calculated on average daily attendance. Nonattendance and truancy have become strong predictors of delinquent behaviors such as vandalism, shoplifting, and graffiti (DeKalb et al., 1999).

School Attendance and Academic Achievement

The impact of regular attendance on academic achievement may be greater than suspected (DeKalb et al, 1999; Johnston, 2000; Lamdin, 1996; Roby, 2004). While researchers seek key variables that contribute to student achievement, student attendance has often been overlooked as an important variable in fostering student achievement (Roby, 2004). Students who attend school regularly are more successful than those who do not, primarily because chronic non-attenders miss valuable hours of instruction (Alexander et al., 1997; Carruthers, 1993; Ensminger & Slusarcick, 1992; Garry, 1996; Hinz et al., 2003; Lamdin, 1996; Railsback, 2004; Roby, 2004; Volkmann & Bye, 2006). Table 1 presents the Average Daily Attendance and its equivalence in instructional hours lost, based on 6 hours per day of instruction and 182 days of school. In Virginia where the AYP attendance rate has been established at 94%, students can access 1026

hours. At 94% ADA, a student will lose 66 hours of instruction, equivalent to of 11 days of school. Nationally, Virginia has one of the more rigorous AYP attendance rates.

Table 1

Average Daily Attendance and Its Equivalence in Instructional Hours

Average Daily Attendance %	Instructional hours per year (rounded)	Instructional hours lost per year	Instructional Days
100 %	1092	0	0
99 %	1081	11	1.5
98 %	1070	22	3.6
97 %	1059	33	5.5
96%	1048	44	7.3
95 %	1037	55	9.1
94 %	1026	66	11
93 %	1015	77	12.8
92 %	1004	88	14.6
91 %	993	99	16.5
90 %	982	110	18.3

In Great Britain, school attendance was one of the most important factors associated with progress toward literacy for children (Tymms, 1996). In Australia, despite initiatives introduced by commonwealth governments over the last 20 years, the persistence of high rates of absenteeism in the indigenous student population has been reported as the major reason for low standards of academic achievement, including low levels of English language and literacy skills (Bourke et al., 2000). High absenteeism has been correlated with school failure (Kearney, 2003).

Findings from a study in Minneapolis schools indicated that students who were in class 95% of the time were twice as likely to pass state language-arts tests as students with attendance rates of 85% (Hinz et al., 2003). In Rochester, N.Y., researchers in a district of 37,000 students examined attendance and achievement patterns and found that students who had scored between

85 and 100 on the state English tests had attended school an average of 93 % of the time. Students who scored below the 54th percentile had an average attendance rate of 85 % (Johnston, 2000).

In one of the first longitudinal studies with Baltimore City Schools, students were tracked from grade one to graduation. Students who had dropped out of school averaged a total of 16 days absence while in first grade. Students who had graduated from high school had averaged 10 days absence in first grade. Each additional day absent was estimated to increase the likelihood of dropout by 5%. This study suggested that the six-day difference increased the odds of dropping out of school by 30 % (Alexander et al., 1997). Roby (2004) examined Ohio Proficiency Tests scores of students in grades 4, 6, 9, and 12 in different schools and found a strong positive relationship between student achievement and school attendance averages. In four of six urban districts studied, a statistically significant difference occurred in student achievement within the top and bottom three schools in each district. The top three schools, ranked by Ohio Proficiency test score averages also had higher attendance averages.

Strategies To Increase Attendance

Effective strategies for improving student attendance have not been clearly identified. In fact, extensive reviews of attendance literature found no specific research addressing one strategy as better or more effective than another in increasing attendance (Railsback, 2004). Different perspectives lead to different strategies and just how school systems combat the problem of chronic absenteeism, unexcused absences, truancy, and drop-outs will depend on their understanding and beliefs about the causes of absenteeism.

Historically, for example, a dominant theme running through the literature is the perception that the student and/or the family unit is the root cause of absenteeism (Bourke,

Rogby & Burden, 2000; Lee & Burkam, 2003; Reid, 1995; Woods 1995). Since NCLB increased accountability measures related to attendance, strategies throughout the U.S. have increased the use of “policing practices”, which have led to surveillance, punishment, and the application of legal sanctions when students or parents refuse to conform to established boundaries of behavior. Police personnel and district supervisors often organize attendance sweeps to round up students from their homes or popular hangouts during school hours.

The state of Virginia strengthened its attendance policy in 2004 when the legislature removed a restriction on the courts use of contempt power in enforcing compulsory school attendance and parental responsibility. The updated law clarifies and reinforces the court's authority to order a child, the parent or both, to enroll in programs that will correct attendance concerns. Such attendance policies require more commitment of time from teachers and principals as they collect, analyze, and maintain attendance data, which are currently used for public reporting, comparing, and sanctioning schools. Zero tolerance polices with punitive actions, such as suspensions and detentions for truancy, may not be a strategy that has a positive impact on changing the pattern of non-attendance for students. In fact, this strategy may have the opposite effect, especially when minority or economically disadvantaged students are affected (Epp & Epp, 2001; Shannon & Bylsma, 2003; Skiba & Knesting, 2001; Williams, n.d.). The punitive law enforcement perspective usually involves some negative sanctions administered to either the truant student, the family, or both.

A psychological approach for increasing attendance, which views absenteeism as a problem stemming from the interaction patterns within families, would suggest clinical treatments for the student or the family. From this perspective come the incentive and reward practices used so routinely by schools to increase attendance. Research into incentives and

rewards appears to be mixed as to its success (Railsback, 2004; Volkmann & Bye, 2006). A sociological approach, predicated on the belief that absenteeism is linked to family disorganization, dysfunction, and/or disruption, would require strategies involving the intervention of a social worker who would monitor the parent in the home and require the school to contact the case worker when absences occur.

Social, economic, and educational benefits accrue from regular student attendance in schools, yet, while 54 million students walk into more than 94,000 K-12 schools in the U.S. each year (National Center for Education Statistics, 2002), 1.2 million students walk out of these same doors never to return (Edweek, 2006). This choice becomes life limiting. It is understood that a combination of student, family, community, and, more recently, school related factors perpetuate a crisis of nonattendance, truancy, and early school leaving (Hinz et al., 2003; Railsback, 2004; Smink & Reimer 2005). Effective schools increase a student's chances of academic success (Marzano, 2003). Effective schools have effective teachers. Teacher interactions and teaching behaviors in the classroom are important contributors to a student's decision to attend or skip school. Effective teacher behaviors influence student engagement (Hinz, McFadden & Munns, 2002; Skinner & Belmont, 1993; Yair, 2000).

Student Engagement

Engagement has been defined as a student's involvement with school; the psychological investment in and effort directed toward learning (Finn, 1989; 1993); the understanding or mastering the knowledge, skills, or crafts that academic work is intended to promote (Newmann et al., 1992); and the interest and emotional involvement with schooling, including a student's motivation to learn (Steinberg, 1996). Marks (2000) conceptualized engagement as "a psychological process, specifically, the attention, interest, investment, and effort students expend

in the work of learning” (pp. 154-155). Csikszentmihalyi (1990) defined engagement as a growth-producing activity through which a student allocates attention in active response to the environment. Just how engaged or attentive a student will be is based on several factors: natural inclinations, prior fulfillment and satisfaction, relevance to the future, and value of the activity (Csikszentmihalyi, 1990). Whatever the definition, the understanding of engagement must move beyond the narrow idea of students being on task and complying with the wishes of teachers (McFadden & Munns, 2002).

Conditions. Psychological and educational viewpoints have enriched the discussion on what conditions are necessary for engagement. Psychological research describes conditions that promote or undermine engagement as relating to students beliefs about their abilities and competencies as well as conditions of control, values, goal orientations, intrinsic motivation, and social connectiveness (Skinner & Belmont, 1993). Educational researchers, on the other hand, describe conditions for student engagement and its effect on achievement, student attendance, truancy, and early school leaving. Where the different paradigms have crossed, discussions related to the motivation to learn, teacher behavior, student engagement, and academic achievement have occurred. These discussions serve to guide actual classroom practices that influence student attitudes and beliefs, while psychological discussions explain how these beliefs influence student engagement and achievement in the classroom (Skinner & Belmont, 1993).

Engagement as a multidimensional construct. In looking at engagement as a multidimensional construct, it is possible to combine behavioral, emotional, social, observable, and cognitive components of engagement in meaningful ways. Engagement in schoolwork, then, involves behaviors such as persistence, effort and attention; emotional behaviors such as enthusiasm, interests, and pride in success (Connell & Wellborn, 1991); cognitive behaviors such

as attention, problem solving, and using meta-cognitive strategies; observable behaviors such as active participation and completing one's work; and social behaviors such as having friends, participating in extracurricular activities, and feeling a sense of loyalty to a school (Johnston et al., 2001).

Behavioral engagement. Finn (1989) employed two constructs in his framework for understanding student engagement: a behavioral construct in the form of participation in school and an emotional or affective construct in the form of identification. Behavioral engagement draws on the idea of student participation and involvement in the classroom with content, academics, and extracurricular activity. A student would demonstrate engagement through behaviors that observers would describe as showing effort, concentration, attention to task, asking questions, and contributing in interactions (Birch & Ladd, 1997; Finn & Voelkl, 1993).

Finn (1989) described four levels of student participation. At the basic level, participation involves responding to directions, answering questions, and taking part in curricular activities planned by the teacher. At the second level of participation, students initiate questions, interact with teachers, show enthusiasm and are willing to expend time in the classroom before, during, and after school. At higher levels of participation, the student becomes more involved in the learning process and with extracurricular social, athletic, and academic clubs, as well as community activities (Finn, 1989).

Emotional engagement. Finn's (1989) second construct, the emotional or "affective" dimension of engagement, occurs when students feel a sense of belonging as members of a classroom, club, or school group. This phenomenon is also known as "school attachment" (Connell et al., 1994; Finn & Rock, 1997; Finn & Voelkl, 1993; Johnson et al., 2001; Lamborn, Brown, Mounts, & Steinberg, 1992; Lee & Smith, 1995; Skinner, Wellborn, & Connell, 1990).

Students who experience a sense of belonging are more willing to accept the goals and rules of the school and are less likely to exhibit disruptive behaviors such as skipping school (Finn, 1989; Finn & Voelkl, 1993; Finn et al., 1995; Finn & Rock, 1997). An understanding of school attachment has added to the success of drop-out programs (Johnson et al., 2001; Smink & Reimer, 2005; Railsback, 2004). This may be true especially for minority students according to Connell, Spencer, and Aber, (1994) who argue that student engagement is where school reform efforts should begin if the goal is to enhance the educational chances of minority youth.

Being emotionally engaged in a classroom creates the willingness, interest, and happiness to do the work, and usually results when students like the teacher. However, when a student has not connected with or has a negative reaction to a teacher, the opposite can occur: the unwillingness to do or complete assignments, and boredom, which has a negative effect on academic achievement (Fredricks et al., 2004; Marks, 2000; Skinner & Belmont, 1993).

Attachment, engagement, and achievement are interconnected in complex ways. Over an entire educational history, they have the potential to produce important cumulative differences among students (Johnson et al., 2001). Emotional engagement, particularly in relation to interests and values (Eccles et al., 1993; Krapp, Hidi, & Renninger, 1992), overlaps with motivation theory (Fredricks et al., 2004; Maehr, & Midgley, 1991).

As a student moves through the grades, identification as a member of a group or team perpetuates the active student participation cycle (Finn, 1989; Goodenow, 1993; Wehlage et al., 1989). Students who regularly participate in extracurricular activities develop a sense of “belonging” to their school community, which in turn, promotes a feeling of self-worth and assists students toward becoming resilient learners, particularly for students who are considered “at-risk” of not completing school (Mahoney & Cairns, 1997).

Cognitive engagement. Cognitive engagement research draws from two different perspectives. One perspective is the learner's psychological investment in, and effort toward the task of learning, mastery of skills, or crafts that the academic work is designed to promote (Newmann et al., 1992). The other perspective views the learner as being a strategic, self-regulating person who uses metacognitive strategies to plan, monitor and evaluate their own work (Pintrich & DeGroot, 1990). Csikszentmihalyi (1990) described the ultimate cognitive engagement as a state of "flow" in which persons become so intensely involved with a task that they lose all sense of awareness of time and space.

Student Engagement and its Relationship to Student Attendance

School attendance is an important participation behavior (Finn, 1993). The nonattendance, school refusal-behavior, and dropping-out behaviors of students, more recently have been associated with student disengagement (Hinz et al., 2003; Kearney, 2003; Klem & Connell, 2004; Lehr et al., 2004; Olson, 2006; Railsback, 2004; Smink & Reimer, 2005; National Research Council & Institute of Medicine, 2003; Rumberger, 1995). The current literature suggests that student nonattendance is an indicator of a larger, more complex issue of student disengagement and motivation and that what happens in schools contributes to both (Bryk & Thum, 1989; Klem & Connell, 2004; Lan & Lanthier, 2003; Lee & Burkam, 2003; Lehr et al., 2004; Rumberger, 1995; Skinner & Belmont, 1993; National Research Council & Institute of Medicine, 2003). School contexts, climate, organization, composition, and the size of school interact with the needs of student to either promote engagement or undermine it (Bryk & Thum 1989; Eccles & Midgley, 1989; Lan & Lanthier, 2003; Lee & Burkam, 2003; Johnson, Crosnoe, & Elder, 2001; Skinner & Belmont, 1993).

Student disengagement is not new in educational reform reviews. Merging as a concern in the 1980s, researchers presented a troubling picture of many bored high school students merely putting in time, passively listening to daily lectures which reflected a fragmented, weak curriculum (Goodlad, 1984; Sedlak, Wheeler, Pullin, & Cusick, 1986; Sizer, 1984). The decision to drop out of school does not happen overnight. It is a gradual outward symptom of pervasive disengagement from the academic purposes and programs of schools (Finn, 1989; Klem & Connell, 2004; Lehr et al., 2004; National Research Council and Institute of Medicine, 2003; Newmann, 1991, 1992; Steinberg, 1996; Wehlage et al., 1989).

Recognizing that schooling itself is intended to be a cumulative process, recent concern has centered on the early learning experiences of students and their cumulative effect on academic performance, behavior, and attitudes towards learning, all of which are powerful predictors of whether a student will graduate (Bryk & Thum, 1989; Lehr et al., 2004). Gradual disengagement occurs as many students progress from elementary to middle to high school (Barclay & Doll, 2001; Barrington & Hendricks, 1989; Finn & Voelkl, 1993; Fredricks et al., 2004; Marks, 2000; McDermott et al., 2001; Miller, Leinhardt, & Zigmond, 1987; Smink & Reimer, 20052005). Students considered at risk of dropping out have been identified as early as third grade on the basis of poor attendance patterns, unsuccessful school experiences, academic performance, and behavioral difficulties (Finn, 1989; Klem & Connell, 2004; Lehr et al., 2004; Rumberger, 1995).

Student Engagement and its Relationship to Achievement

The more motivated and engaged the student is in learning the more likely that the student will finish high school and achieve increased levels of success (Blank, 1997; Dev, 1997; Kushman, Sieber, & Harold-Kinney, 2000; Woods, 1995). Student engagement is essential for

learning and for success in school. Student engagement is important because of its positive relationship to achievement and to improved school performance across diverse populations (Connell, Wellborn, 1991; Finn, 1989; Finn, 1993; Finn et al., 1995; Klem & Connell, 2004; Marks, 2000; Voelkl, 1995). The benefits of having engaged students in classrooms are overwhelming. Finn et al. (1995) examined the achievement of over 1,000 fourth-grade students rated by their teachers on a scale that included 26 specific participatory behaviors (e.g., the student “pays attention in class,” “does more than the assigned work,” “annoys or interferes with peers’ work”). Students were classified as being “disruptive,” “inattentive,” or as both “disruptive and inattentive,” or as “compliant” based on these ratings. It was found that students who were classified on average as being inattentive were significantly weaker academically, scoring below the compliant and disruptive groups on a range of norm-referenced and criterion-referenced achievement tests (Finn et al., 1995). Students who were classified both as disruptive and inattentive had achievement levels similar to those who were merely inattentive. The researchers concluded that students need to be engaged in their classes to have full advantage of the curriculum offered and for learning to occur (Finn et al., 1995).

In another study, Finn (1993) examined student engagement as it related to student achievement using a nationwide sample of 15,700 eighth grade students from the U.S. Department of Education’s, National Educational Longitudinal Study of 1988 (NELS:88) surveys. The study focused on three measures of participation; coming to school, paying attention to the teacher, and responding to teacher directions, questions, and assignments. Students were rated low or adequate on the three measures of participation from student, parent, and teacher questionnaires.

The study indicated that achievement gains are incrementally better the higher the level on the participation scale (Finn, 1993). Thus while higher achievement is associated with the increased participation at all points on the scale, it appears that the greatest achievement advantages are obtained by students who display most or all the forms of participation assessed in this study (Finn, 1993). Differences among the participation groups on achievement tests were large and statistically significant even after controlling for gender, race/ethnicity, and SES (Finn, 1993). Finn (1993) reported that while students whose achievement may be described as marginal exhibit behaviors much like those of successful students, it is important that these accomplishments, although not extraordinary, be recognized in order to promote and sustain these students' involvement in school. Finn also concluded that in order to maximize positive school outcomes, early and persistent efforts should be made in primary schools to identify marginal and noninvolved students.

High levels of engagement have explained why students considered the most at risk for dropping out of school have succeeded academically (Finn, 1993). Using the same sample of 15,700 eighth grade students the U.S. Department of Education's NELS:88 surveys, Finn (1993) examined 600 African American, Hispanic, and non-Hispanic White students labeled at risk for educational problems according to traditional status definitions; being a minority attending inner city schools, low SES, being a member of a large family, and a student whose home language was not English. From this group, subgroups were formed and categorized 'unacceptable,' 'marginal', or 'high' depending on achievement attained in standardized reading and math tests. These three groups were examined against engagement or participatory behaviors, namely, attendance, classroom participation, and negative class behaviors that distinguish students who are at risk (Finn, 1993). The premise was that these groups would differ on these engagement

behaviors. Within the at-risk sample, this study found that the behaviors of successful and marginal students were distinctly different from their unsuccessful peers on a range of participatory behaviors in and out of class. These findings were obtained by controlling for race and gender differences (Finn, 1993).

A student's background can influence his or her level of engagement (Fullarton, 2002; Marks, 2000). In Finn's and Cox's (1992) study, minority students in elementary school were found to be less engaged academically. In a later study, Finn (1993) found that engagement behaviors were more amenable to influence than traditional status indicators. Finn's findings are significant for a number of reasons. For those involved in teaching and administration, the engagement behaviors of students ought to be a focus in instruction. The at-risk behaviors of minority students can be identified early in the school experience and effective strategies developed to keep students engaged in the learning program. Student accomplishments, however small, should be recognized in order to promote and sustain these students' involvement in school (Finn, 1993). This is especially necessary when considering the relationship between minority status and student engagement and how it differs with grade level.

Other studies have found students engaged in school are more likely to earn higher grades (Goodenow, 1993), score higher on standardized tests (Skinner & Belmont, 1993; Willingham, Pollack & Lewis, 2002), be self-adjusted to school (Skinner & Belmont, 1993), and have less disruptive behaviors and suspensions (Connell, Spencer, & Aber, 1994; Finn et al., 1995; Finn, 1989; Marks, 2000). Girls are more academically engaged than boys at all grade levels (Finn, 1989; Finn & Cox, 1992; Fullarton, 2002; Lee & Smith, 1993, 1995). Students in single sex schools were more highly engaged than those at co-educational schools (Fullarton, 2002). In

brief, the more academically successful students were in middle and high school, the greater their engagement with school and class work (Lee & Smith, 1993; 1995).

Measuring Engagement

Student engagement has been measured using several different methods and has been seen as problematic in relation to understanding the construct (Fredricks et al., 2004). Some studies have used distinct or discrete scales for each type of engagement, while others have combined scales into a single general engagement scale (Marks, 2000; Fredricks et al., 2004). Student engagement commonly is measured through information reported by the students themselves. Other methods include checklists and rating scales completed by teachers, observations, work sample analyses, and case studies (Chapman, 2003). In self-report measures, students are asked to complete surveys or questionnaires on their level of task engagement. Self-report measures have provided insights as to why students have become engaged in particular learning tasks. Items relating to the cognitive aspects of engagement often ask students to report on factors such as their attention-versus-distraction during class, the mental effort they expend on tasks as they integrate new concepts with previous knowledge, and task persistence in the face of perceived failure to comprehend the task (Chapman, 2003). As an index of behavioral task engagement, students have been asked to report on their response levels during class time. Behaviors might include making verbal responses within group discussions, looking for distractions, and engaging in non-academic social interaction. Affective engagement questions typically ask students to rate their interest in, feelings for, and emotional reactions to learning tasks (Chapman, 2003). Although self-report scales are widely used, the validity of the data yielded by these measures will vary considerably with students' abilities to assess accurately their

own cognitions, behaviors, and affective responses (Assor & Connell, 1992; Chapman, 2003; Fredricks et al., 2004).

Checklists and rating scales have been used in several studies to measure student engagement levels. For example, teacher report scales used by Skinner and Belmont (1993) asked teachers to assess their students' willingness to participate in school tasks (i.e., effort, attention, and persistence during the initiation and execution of learning activities).

Direct observations are often used to confirm students' reported levels of engagement in learning tasks. They are also used with time sampling in where the observer records whether a behavior was present or absent within a certain time frame. Direct observations in classrooms have been used in several ways. Some direct observations have targeted small groups of students over five-minute intervals and whole classes over a 30-minute observation. In addition, to obtain a representative sample of students' behavior over the full course of a lesson, observations have been rotated among students so that each student is observed continuously for one minute at a time (Chapman, 2003).

Work sample analyses using student projects, portfolios, performances, and learning journals or logs have been used to provide evidence of higher-order problem solving and metacognitive learning strategies (Chapman, 2003). The efficacy of these methods depends on the structured nature of the tasks and scoring rubrics. In addition, focused case studies have been used with small groups of targeted students, allowing a researcher to address questions of student engagement inductively by recording details about students' interaction with other people and objects within classrooms (Chapman, 2003).

In summary, key ingredients for student engagement include student participation, both in school and in extracurricular activities; identification or attachment with school; social

bonding to friends, teachers, and mentors; and academic performance and personal investment in learning (Finn, 1993; Fullarton, 2002; Maehr & Midgley, 1991; Wehlage et al., 1989).

Engagement is seen as an outcome in its own right (Finn, 1993). Regardless of gender, race, or SES, engagement can be a powerful resource for students. Conversely, low engagement in school can be a liability (Gambone, Klem, & Connell, 2002; Klem & Connell, 2004).

School Contexts

Despite social and economic influences on learning, beliefs, attitudes, and behavior patterns are a consequence of cumulative educational experiences ensuing from the schools students attend. What happens within the school affects student engagement, learning, and the future opportunities of students. The degree to which this happens will depend on how well schools structure the learning environment, what values and expectations are communicated to students and their families, and the rigor of the curriculum (Bryk & Thum, 1989; Johnson et al., 2001; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979).

School climate, organizational structures, composition, and the size of the school have important outcomes on student engagement and learning (Lehr et al., 2003; National Research Council & Institute of Medicine, 2003). School climate refers to the values, norms, and beliefs associated with routine practices and social interactions in schools. It is characterized by an ethic of caring and supportive relationships, respect, fairness and trust, and a teacher's sense of shared responsibility and efficacy towards student success (Lehr et al., 2003; National Research Council & Institute of Medicine, 2003).

Emotional bonds between teachers and students, and among teachers themselves is most present in what is sometimes referred to as "communal schools." In communal schools, social support for learning is a valued part of the everyday activity of students and teachers (Lee &

Smith, 2001). When teachers support students, students learn to be productive, evidenced by increased student engagement and attendance (Gambone et al., 2002).

Bureaucratically structured schools, in contrast, are believed to rely on affectively neutral social relationships to facilitate the administration of standardized rules and procedures (Lee & Smith, 2001). Analyses of Lee and Smith's work indicated that students in communal schools attended more class lessons, were absent less often, and had a lower drop-out rate than in bureaucratic schools (Marks, 2000; Lee & Smith, 2001).

One of the most potent predictors of student success is found when teachers' collectively take responsibility for learning about students. Knowledge of student abilities, their willingness to learn, the self-efficacy of teachers, and the ability to get through to even the most difficult students can determine student success (Bandura, 1997; Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). Other predictors included a teacher's personal assessment of their own effectiveness and how open they were to changing how they taught based on student assessments of learning (Lee & Smith, 2001). Student reports indicate that a teacher's attitude about student outcomes and relational trust (Bryk & Schneider, 2002) is important and a determining factor in whether a student remains in school (Klem & Connell, 2004).

School organization, or the way teachers and students are classified and how instruction is delivered, can affect engagement through the messages it conveys and the opportunities it creates for students to learn (National Research Council & Institute of Medicine, 2003). Schools aimed at facilitating closer relationships with their students are reducing class sizes, scheduling larger chunks of time for learning, and letting teachers loop to the next grade with their class for at least two consecutive years. Darling-Hammond et al. (2002) found that implementing block scheduling and looping, along with small size and curricular reforms yielded better student

attendance rates and that performance on reading and writing assessments increased substantially.

The size of the school also can make a difference in student engagement and other academic outcomes. Student attendance is better in smaller schools than in larger schools (Cotton, 1996). Smaller school size is associated with higher achievement and achievement equity and has important benefits for students most at risk (Cotton, 1996; Howley, 2002).

Teacher Role

The nature and context of instruction matter most in engaging students in learning (National Research Council & Institute of Medicine, 2003). Classroom instruction, the learning tasks planned by the teacher, curriculum continuity, and having high expectations for students all contribute to heighten intellectual engagement (Marks, 2000; Newmann, 1992; Newmann, Wehlage, & Lamborn, 1992). The how and what being taught is the most powerful factor in student engagement and learning (National Research Council & Institute of Medicine, 2003). Student engagement is a product of teaching and instruction and how a teacher arranges instructional opportunities for students. Because teaching behaviors are alterable and controllable (Greenwood et al., 2002; Yair, 2000), changes in classroom instruction and teaching strategies can affect student engagement, achievement, and other student outcomes, such as nonattendance, truancy, and early school leaving (Brewster & Fager, 2000; Johnson et al., 2001; Marks, 2000; Yair, 2000).

Highly effective teachers. A teacher is the single-most important factor affecting student achievement (Darling-Hammond, 1996; Marzano, 2003), and the greatest source of variance (Hattie, 2003; Nye, Konstantopolous, Hedges, 2004). The difference in achievement between students in classes taught by highly effective teachers versus highly ineffective teachers is well

documented (Marzano, 2003; Sanders & Horn, 1994; Stronge, 2002). Low-achieving students increased their achievement level by as much as 53% when taught by highly effective teachers (Haycock, 1998).

Although the teacher effect on achievement results is clear, just what the teacher does to produce these results is not so easy to pinpoint (Marzano, 2003; Yair, 2000). What is known, however, is that an effective teacher has a repertoire of instructional strategies, selects the best instructional strategies to use with his or her class addressing the learning needs of individual students, and is able to craft the curriculum to meet students needs and to diversify curriculum with objectives relevant to those needs (Wehlage, 1993; Yair, 2000). Such teachers also have strong classroom management skills (Connell & Wellborn, 1991; Marzano, 2003; Newmann, 1992). A teacher's sense of efficacy is likely to influence the learner's beliefs about his/her own capabilities to learn (Bandura, 1997; National Research Council & Institute of Medicine, 2003; Rutter et al., 1979).

In distinguishing between an expert teacher and an experienced teacher, Hattie (2003) found expert teachers more often than experienced teachers, sought further information before making decisions, whereas the experienced teacher accepted data directly available to them. Expert teachers were more focused on solving problems with respect to individual student's performance in the class, whereas the experienced teachers generally focused their decisions on the entire class. Three characteristics most effectively separated expert from experienced teachers. Expert teachers challenge and provide deeper representations about teaching and learning, better organize and use content knowledge, and monitor and provide accurate feedback to students (Hattie, 2003).

Some factors associated with nonattendance and higher student drop-out rates appear particularly important for minority students. Gay (2000) cites studies that demonstrate effective versus ineffective instruction for African American students. The study has shown that many African American students prefer learning situations that are active, participatory, emotionally engaging, and filled with visual and physical stimulation. Strategies include active learning, teaching and learning strategies that engage and involve students in the learning process, individualized instruction, and need-based teaching methods which create structures and opportunities for personalized learning (Cotton, 1996). Other techniques that improve student attendance include creating classrooms where students are engaged in learning instead of passively sitting and doing worksheets. Building relationships between students and staff is essential to engaging students in the learning process. This can be accomplished by providing relevant and engaging curriculum and instruction and by embracing the richness of cultural diversity (Fredricks et al., 2004; Hinz et al., 2003; Shannon & Bylsma, 2003; Smink & Reimer, 2005; Tucker et al., 2002).

Classroom Environments. Effective teachers establish, manage, and maintain learning-focused classroom environments. They organize time, communicate expectations, and plan instruction. They present curriculum to support active and engaged learning. They monitor student progress, identify student potential, and meet the needs of special populations in the classroom (Stronge, 2002). Thus, a student's rate of learning is influenced by a teacher's ability to establish and motivate academic responses through instruction (Brophy & Good, 1986).

Newmann (1991, 1992) theorized that engagement in learning is enhanced in classrooms where learning tasks are authentic; when opportunities for students to assume ownership for learning is provided; when students can monitor their own progress; when schools provide

opportunities for collaboration; and when a variety of methods of representation of knowledge are presented. Thus, a focus on tasks and cognitive engagement calls attention to the connection between a learner and the social context and interaction in which learning takes place. Instead of a teacher lecturing his or her meaning to students, a teacher develops tasks for which students create their own meaning. Learning becomes a reciprocal experience for the students and teacher. Cognitive engagement is more likely to be observed when students work with peers on novel tasks that have personal meaning (Helme & Clarke, 2001).

Autonomy-supporting classrooms are characterized by choice, shared decision-making and less by excessive external controls, such as grades, rewards, and punishments as reasons for doing school work, homework, or to control behavior (Connell, 1990; Deci & Ryan, 1985). Based on motivation theory, controlling environments diminish interest and preference for challenge and persistence in all aspects of engagement (Deci & Ryan, 1987). Eccles et al., (1993) hypothesized that the lack of opportunities for student autonomy would help to explain declines in student interest, which is one aspect of emotional disengagement during the transition from elementary to middle school.

Psychological variables. Effective teaching practices address underlying psychological variables related to motivation, control, beliefs in learning ability, and a sense of belonging (National Research Council & Institute of Medicine, 2003). Teachers who plan classroom-management techniques and instructional activities that foster student independence and autonomy realize the correlation between student effort in academic work and beliefs about their own capacity to succeed (Eccles et al., 1983; Maehr, & Midgley, 1991; Skinner et al., 1990).

Students' confidence in their ability to complete academic tasks have an effect on a their decision to leave school (Klem & Connell, 2004; National Research Council & Institute of

Medicine, 2003). This was demonstrated in a national longitudinal study that tracked the educational careers of 13,000 8th graders. About 32% claimed they had dropped out of school because they could not keep up with schoolwork (Berkthold, Deis & Kaufman, 1998). Perceptions of incompetence also may contribute to the disproportionate number of low-income students and students of color who drop out of high school. It is the cumulative effect of feeling incompetent that effects the gradual disengagement of students from the schooling process. Teacher support is vital to student success.

Students who perceive teachers as being supportive and caring are more likely to report engagement in school (Klem & Connell, 2004; Skinner & Belmont, 1993). Teacher support, as defined by Klem and Connell, (2004) involves teachers who care about students and allow students to make decisions for themselves within a well-defined sense of structure. The work assigned is seen as relevant to the present or future lives of the students. High expectations regarding conduct are consistent and predictable with fair consequences for not meeting those expectations. Elementary students experiencing high levels of teacher support were 89% more likely to feel engaged, according to self-reports. Lack of teacher support has the largest effect on elementary student experiences of engagement (Klem & Connell, 2004; Skinner & Belmont, 1993). Elementary students experiencing low levels of teacher support were twice as likely to feel disengaged from school. Unsupported students were 93% less likely to feel engaged in school (Klem & Connell, 2004). In a summary of their findings, Wehlage and Rutter (1986) concluded that one of the most important measures of student alienation and rejection of school is the teacher's interest in students. This explains variations in engagement levels from one teacher to another, given the difficulty of reliably labeling a student as being engaged or motivated to learn (National Research Council & Institute of Medicine, 2003).

Most children begin school as willing participants and are drawn to participate initially by encouragement from home and by classroom activities (Skinner & Belmont, 1993). Teaching efforts for all ages, especially in elementary school, should be directed at increasing student participation (Finn, 1989). Lack of participation leads to unsuccessful school outcomes, which in turn leads to emotional withdrawal, lack of identification with the school, and nonparticipation in school-related activities.

Conclusion

The original intent of compulsory attendance laws was to ensure success for a new wave of thinking about education for all children. The laws protected children from undue labor requirements by removing children from industries and placing them in classrooms where they were ensured basic reading and writing experiences. Today, compulsory attendance laws simply are not motivation enough for parents to send their children to school or for older students to complete the required years of schooling. Even though school districts are adamant in enforcing this law and implement punitive consequences for not attending school, the reality is that learning requires conscious and purposeful effort on behalf of the student – which cannot be legislated.

It is understood that a combination of student, family, community, and, more recently, school climate and teacher behaviors, work together to perpetuate the nonattendance, truancy, and dropout crisis (Brewster & Fager, 2000; Hinz et al., 2003; Railsback, 2004; Skinner & Belmont, 1993; Smink & Reimer 2005). Strategies for increasing attendance generally have focused on policies and interventions.

Student engagement has been identified as an essential element for school success. It is an important construct because of its effect on academic achievement and other educational

outcomes, such as attendance, truancy, and early school leaving. Despite the importance of this construct, research studies over the past two decades have documented low levels of student engagement, particularly in high schools (Bridgeland, DiIulio, & Morison, 2006; Newmann, 1992; Steinberg, 1996).

Student engagement begins to wane as students move from elementary school into the higher grades (Anderson & Midgley, 1998; Finn, 1989). Generally, it is thought that younger students disengaged within elementary classrooms are compliant enough to attend school, often because they do not have the means to avoid it. If this view held true, then elementary school attendance would not be the subject of NCLB policies nor would school refusal behaviors be so prevalent. Student disengagement and patterns of nonattendance begin early but are often explained as a student or family issue, not a teacher issue.

As students enter school, their desire to learn is influenced by teachers, the school environment, and their classmates (Anderman & Midgley, 1998; Lumsden, 1994). While always competing with diverse values, beliefs, and outside conditions of students, effective teachers can be the buffer between the classroom and those external tensions by engaging students in the learning process.

Teaching practices that fail sufficiently to interest and engage all learners can be changed (Dev, 1997; Skinner & Belmont, 1993). Teaching behaviors and skills are alterable and controllable (Greenwood et al., 2002; Marks, 2000), and changes in classroom instruction and teaching strategies can produce positive student engagement results, as well as better achievement and other outcomes, including attendance.

Analyzing outcome data has become an essential tool for any effective teacher and a skill necessary for continuous improvement and of student learning. Attendance data for each teacher,

school, and district is presently available through the requirements of NCLB legislation.

Attendance data is another example of outcome data and when viewed as data within the circle of influence of the teacher, it may be possible to move away from the commonly held view that the nonattendance of students is solely the result of a student or family condition.

What happens in the classroom is at the heart of keeping students in school and what happens in the early years of schooling is key to keeping students in school. This study will investigate four research questions related to student attendance, achievement data, and engagement. Chapter 3 will provide a description of the sample, instrumentation, and method of data collection and analysis to be used in this investigation of the four research questions proposed in this study.

CHAPTER III

Methodology

Student attendance and its relationship to student achievement was examined in this descriptive and correlational study. Specifically, the study explored (a) student attendance and its relationship to student achievement, and (b) student attendance and its relationship to the level of engagement found in primary school classrooms.

Research Questions

1. Is there a significant relationship between classroom attendance rates and academic achievement?
2. Is there a significant difference between the classroom attendance rates of students in Title I schools and the classroom attendance rates of students in non-Title I schools?
3. Is there a significant relationship between classroom attendance rates and student engagement?
4. Is there a significant difference in classroom attendance rates between students in grade three (SOL testing grade) and students in first and second grades (non-testing grades)?

Research Design

To address the four research questions, a descriptive and correlational research design was developed. Quantitative and qualitative methods of data analysis were used in this study. A summary of the analyses employed to answer the four research questions is included (see Table 3) in a Research analysis matrix. The unit of analysis was the classroom. Descriptive research utilized attendance data from Title I and non-Title I classrooms in Coolum District. The correlational research design investigated whether there was a statistically significant

relationship between classroom attendance and student achievement as measured by the Phonological Awareness Literacy Screening (PALS). Classroom Average Daily Attendance (ADA %) rates were compared with PALS benchmark data gathered from grades one and two. An observational descriptive design and correlational research design investigated whether a statistically significant relationship between classroom attendance and student engagement existed. Classroom observations were completed counting the number of students "on task" and "off task" during a set period of time. Engagement was measured using an engagement observation instrument (DiPaola & Hoy, 2008). Data from these sources were entered in the Statistical Package for the Social Sciences (SPSS).

Sample

Question 1. This question focused on measures of classroom attendance and academic achievement from Title I and non-Title I classrooms. Classroom ADA% were examined from grades one and two from the fifteen Title I schools and ten non-Title I schools in Coolum District during the 2005-2006 school year. Year-round schools, special-education classrooms, and kindergarten classrooms were eliminated from the sample group to control for bias. Special education classrooms were eliminated because of smaller class sizes, multiple grade levels taught, additional adults found in the room, and a higher percentage of medically fragile students. Kindergarten classrooms were eliminated because some schools offer half-day programs while others offer a full-day program, and have either full-or part- time assistants in the classroom with the teacher.

Questions 2 and 4. For these two research questions, classroom ADA from 499 classrooms located in Title I and non Title I schools were utilized.

Question 3. This question focused on measures of classroom attendance and student engagement derived from ADA% and student engagement data collected in randomly selected classrooms. Two subgroups were identified from Title I grade one and grade two classrooms. One subgroup had an attendance rate of 94% ADA and less, the other subgroup consisted of classrooms that had attendance rates of 96% or above. Subgroups were based on Virginia's AYP benchmark of 94% average daily attendance. From each subgroup, fifteen classrooms were randomly selected. The student engagement data collection instrument (DiPaola & Hoy, 2008) was utilized in thirty classrooms.

School District Description

Coolum District (name of school district has been changed) is a midsize urban district in Virginia that serves 32,600 students composed of 58% African American, 32% White, 6% Hispanic, 3% Asian, and less than 1% Native American students. Students with disabilities represent 14% of the student body. The average household income is \$36,500 per year. Forty-eight percent of students are economically disadvantaged, as measured by eligibility for the federal free or reduced cost lunch program. The district operates five early childhood centers, twenty-six elementary schools, (sixteen of which are Title I schools), nine middle schools, five high schools, four magnet schools, (one of which is a Title1 school), and two nontraditional alternative high schools.

In 2005, thirty-eight of forty-one of Coolum's schools received full state accreditation. This was an increase from one accredited school in 2000. Coolum District also met Adequate Yearly Progress (AYP) goals for the 2005-2006 school year. Based on the Virginia Department of Education's recalculated results, the school district met all thirty of the annual measurable objectives to indicate AYP.

Data Collection

Average Daily Attendance (ADA%) data. The 2005-2006 end-of-year classroom average daily attendance (ADA%) data were used from grades one through five in twenty-five elementary schools, disaggregated by Title I and non-Title I schools.

The Phonological Awareness Literacy Screening (PALS).

The Phonological Awareness Literacy Screening (PALS) data were used. Data collection was from the 2005-2006 school year from grade one and grade two classrooms in both Title I and non-Title one schools. The Phonological Awareness Literacy Screening (PALS) began as part of the Virginia Early Intervention Reading Initiative (EIRI) designed to identify kindergarten through grade three students in need of additional reading instruction and early intervention services. PALS is used by over 15,000 teachers in all of Virginia's 132 districts, and in 42 states and 6 countries (Invernizzi, Meier, & Juel, 2003).

PALS consists of two screening instruments, one for kindergarten students and one for students in grades one through three. It is designed to identify students who are below grade-level in 5 basic literacy areas; phonological awareness, alphabet knowledge, knowledge of letter sounds, spelling, concept of word, word recognition in isolation, and oral passage reading. If identified, students are able to receive additional reading instruction beyond that which would normally be provided in the classroom (Invernizzi et al., 2003). For the purposes of this study, data from PALS 1-3 was used, therefore technical information references PALS 1-3 only. Since the score metric differs between the fall and spring and between grades, PALS scores have been standardized to facilitate descriptive analyses in this study (M=500). Raw PALS scores were used to perform the correlational analysis.

Technical Information

Pilot and field tests. The technical adequacy of PALS 1–3 has been established through pilot and field tests and statistical analyses of PALS scores for over 450,000 students in the Commonwealth of Virginia in grades one through three. The tasks presented in PALS 1–3 are a representative sample of tasks found in other measures of emergent and early literacy (Invernizzi et al., 2003). Items were selected because of their previous history in literacy acquisition research and because of their correlation to the Commonwealth of Virginia’s Standards of Learning (SOL) in grades one, two, and three (Invernizzi et al., 2003). National experts in the fields of reading, communication sciences, or psychology served on advisory review panels. External reviewers monitored for task development and for benchmark determination (Invernizzi et al., 2003).

Benchmarks. Decisions regarding PALS benchmarks were based on (a) nine years of research using similar tasks with struggling readers in a central Virginia early intervention program, (b) statewide PALS data from the first six cohorts of Virginia’s EIRI, and (c) data gathered from field tests with approximately 8,000 first, second, and third grade students in the Commonwealth of Virginia (Invernizzi et al., 2003). For 2005-2006 benchmark scores see Table 2.

Table 2

PALS Benchmark Scores for 2005-2006 (Invernizzi et al., 2003).

Grade	<i>Fall 2005 Benchmark Score</i>	<i>Spring 2006 Benchmark Score</i>
<i>K</i>	28	81
<i>1</i>	39	35
<i>2</i>	35	54
<i>3</i>	54	65

Reliability. Reliabilities for PALS subtasks were determined for grade, gender, SES, and ethnicity using data generated from statewide samples for the years 1998–1999 and 1999–2000 (Invernizzi et al., 2003).

Alpha coefficients are acceptable across the two-year period, ranging from .66 to .88, with a mean alpha coefficient of .80 and a median coefficient of .81 for all segments of the sample. The consistency of the coefficients across all demographic subgroups indicates that the Summed Score tasks for PALS were stable and reliable across a broad representation of students. (p.33).

Internal consistency. Reliability coefficients for individual Entry Level tasks range from .81 to .96, demonstrating the adequacy of their internal consistency (Invernizzi et al., 2003).

Inter-rater reliabilities expressed as Pearson correlation coefficients have ranged from .93 to .99, demonstrating that PALS 1–3 tasks can be scored consistently across individuals. In all of these analyses, PALS 1–3 has been shown to be steady, reliable, and consistent among many different groups of users (Invernizzi et al., 2003, p. 35).

Validity. Three types of validity (a) content validity, (b) construct validity, and (c) criterion-related validity, both predictive and concurrent, have been obtained for different groupings of students over a six year period (Invernizzi et al., 2003).

Content Validity. To ensure that PALS 1–3 has ample content validity in reading, tasks were selected that research verified was essential to reading comprehension and words selected that were appropriate for each grade level being assessed (Invernizzi et al., 2003).

Construct Validity. Results of principal components analyses (PCA) verifying the underlying factor structure, and through discriminate analyses (DA) determining the extent to which group membership (i.e., Identified versus Not-identified for additional services) could be predicted accurately support PALS 1–3 as assessing a single general construct associated with beginning reading (Invernizzi ., 2003). High intercorrelations (above .80) have been consistently obtained among PALS 1–3 Summed Scores in the fall of grades two and three and in the spring of the year before ($p < .001$). For all three grades, the correlation between PALS Summed Scores at yearly intervals, from fall to fall, is medium-high and significant ($p < .001$) (p. 37).

Criterion-related Validity. Both forms of validity, *predictive* and *concurrent*, have been assessed for PALS 1–3 (Invernizzi et al., 2003).

Predictive validity was examined using correlation coefficients between PALS scores and *Stanford-9* and SOL reading test scores, (two outcome measures selected because they were at that time both required by the Virginia Department of Education in alternate grades, beginning in grade three). Regression analyses demonstrated the predictive relationship between PALS 1–3 Entry Level Summed Scores in the fall and *Stanford-9* and SOL reading scores in the spring. Concurrent validity of PALS 1–3, using the California Achievement Test (CAT/5) and the Qualitative Reading Inventory (QRI-II) for grade one; the *Stanford-9* for grade two; the Developmental Reading Assessment (DRA) for grades one, two, and three; and the SOL reading component for grade three have been demonstrated. Analyses provide evidence of the validity of PALS 1–3 as an early reading assessment that reliably

identifies students in need of additional instruction and provides diagnostic information that is useful in planning that instruction (p. 44).

In summary, PALS 1–3 provides a valid and reliable assessment tool to screen students in grades one through three for difficulty in beginning reading. PALS 1–3 shows evidence of both internal consistency and inter-rater reliability, indicating that it can be administered and scored consistently by different users (Invernizzi et al., 2003). Students are screened two times a year, in the fall and the spring. A mid-year PALS screening will be given to students who did not make the benchmark score in the fall.

The Student Engagement Data Collection Tool

An adaptation of The Student Engagement Data Collection observation tool (DiPaola & Hoy, 2008) was used to observe students and teachers. This adapted tool was designed for elementary classrooms where the movement and flow of young students makes it more difficult for an observer to keep track of individual student observations. This tool (see Appendix B) was selected for its ease and useful recording method of how many students were engaged at a particular point in time. A coded legend was provided to represent "on task" behaviors and "off task" behaviors observed. The observer systematically examined the behavior of students in the class for a few seconds to determine the number of students on task or off-task during an activity. The observer made a tally of the number of students "on task" and a tally of the number of students "off task". Observations were repeated at six intervals during a lesson with a 5-minute interval between each observation scan and using the same legend codes to indicate observed behavior (DiPaola & Hoy, 2008). The six observations were then averaged together to arrive at a class engagement value. Observers were in classrooms during the first 90 minutes of the school day during the Literacy Block time period.

Reliable Observers

Reliable observers were used to control for observer bias. Training procedures for the observers consisted of discussion of the observation tool to develop clarity of purpose and coding procedures. Practice observations for trainees were established. Observer discussion followed the use of the tool to determine observer agreement. Two types of observer agreement were used: criterion-related, and interobserver reliability. Criterion-related observer reliability was used to ensure trained observer scores agreed with those of the expert observer. Observers went into six classrooms to achieve this goal. Data collected was checked for agreement with expert data collection. The interobserver reliability check was completed to ensure that the observers agreed with each other during actual data collection. An 80% satisfactory level of agreement was met.

Data Analysis

Q1. Is there a significant relationship between classroom attendance rates and academic achievement as measured by the Phonological Awareness Literacy Screening (PALS) benchmark data gathered in Grades 1 and 2?

Descriptive statistics and a Pearson Correlation Coefficient were used. PALS data were analyzed when it consisted of both a fall and a spring score and classrooms were eliminated when PALS data were found to be incomplete. Classrooms were also eliminated if ADA% data were found to be incomplete or entered as 100% indicating a data entry mistake or an incorrect homeroom number. Outliers in attendance and PALS were eliminated either by extremes of highs and lows of more than three standard deviations. A scatterplot was developed as a visual inspection of correlational patterns. A Pearson Correlation Coefficient (r) was calculated to provide a numerical description of the degree of the relatedness of two sets of scores and the direction of the relationship.

Q 2. Is there a significant difference between the classroom attendance rates of students in Title I schools and the classroom attendance rates of students in non-Title I schools?

Descriptive statistics and an independent sample t-test were run to determine whether any statistically significant difference existed between the classroom attendance of students in Title I schools and students in non-Title I classrooms at a selected probability level of $p < .05$.

Q 3. Is there a significant relationship between classroom attendance rates and the mean student engagement score as measured by Student Engagement Data collection Instrument? (DiPaola & Hoy, 2008).

Thirty randomly selected Title I classrooms were used. Fifteen classrooms were randomly selected from a sample group of classrooms with 94% ADA or less, and another fifteen classrooms were randomly selected from a sample group with ADA 96% or higher. The subgroup percentages were determined based on Virginia's AYP benchmark of 94% average daily attendance. Descriptive statistics and an independent sample t-test were run to determine whether any statistically significant difference in student engagement existed between classrooms where attendance is below 94% ADA and in classrooms where attendance is 96% ADA or higher. A Pearson Correlation Coefficient (r) was calculated to provide a numerical description of the degree of the relatedness of two sets of scores and the direction of the relationship. Having set time sweeps and conducting the classroom observations at the same time each day for every observation controlled threats to internal validity. Strategies described reduced researcher bias when observing in classrooms and improved the validity of the data collected. In order to control for observer bias, two observers randomly selected from the sample group of 30 classrooms, fifteen classrooms each to collect the engagement data.

Participants' trust and comfort were considered at all times. Teachers were provided a brief explanation of the purpose of the classroom observation and procedure, including the length of time the observers would be in the room. After the observation, the teacher was provided a copy of the completed engagement form with either written or verbal feedback.

Q 4. Is there a significant difference in classroom attendance rates between students in grade three (SOL testing grade) and students in grades one and grade two (non-testing grades)?

An independent sample t-test was run to determine whether any statistically significant difference existed between students in grade three (SOL testing grade) and students in grades one and grade two (the non-testing grades) at a selected probability level of $p < .05$. The means for grades one and three and then for grades two and three were run separately and then grades one and two were compared to the ADA of grade three classrooms. A summary of the analysis information has been included (see Table 3) in a research analysis matrix.

Table 3

Research Analysis Matrix

Research Question	Data Source	Data Analysis Procedure
1. Is there a significant relationship between classroom attendance rates and academic achievement?	2005-2006 Average Daily Attendance per elementary classroom both Title I and non-Title I. 2005-2006 PALS 1-2 grade data per elementary classroom both Title I and non-Title I.	Descriptive statistic Scatterplot –a visual inspection of correlational patterns, including outliers. Pearson Correlation Coefficient (<i>r</i>) to express the degree of relationship between the two variables.
2. Is there a significant difference between the classroom attendance rates of students in Title I schools and non-Title I schools?	2005-2006 Average Daily Attendance per elementary classroom both Title I and non-Title I schools.	Descriptive statistics Independent sample t-test to determine whether the means of 2 groups are significantly different from each other.
3. Is there a significant relationship between classroom attendance rates and student engagement?	2005-2006 Average Daily Attendance per elementary classroom in Title I schools only. Student Engagement Data collection Instrument (DiPaola & Hoy, 2008). Grades 1 and 2.	Descriptive statistics Pearson Correlation Coefficient (<i>r</i>) to express the degree of relationship between the two variables. Independent sample t-test to determine whether the means of 2 groups are significantly different from each other.
4. Is there a significant difference in classroom attendance rates between students in grade 3 (SOL testing grade) and students in 1 st and 2 nd grades (non-testing grades)?	2005-2006 Average Daily Attendance per elementary classroom both Title I and non-Title I schools.	Descriptive statistics Independent sample t-test to determine whether the means of 2 groups are significantly different from each other.

Ethical Safeguards and Considerations

Ethical concerns regarding the collection and use of classroom data were safeguarded. Each teacher received a Human Subjects Participant Informed Consent Form to sign (Appendix 3) explaining the general nature of this study. Participants understood that responses would be confidential and that they could discontinue participation at any time. The researcher gained approval for the study from the Human Subjects Committee at The College of William and Mary.

A Research and Program Evaluation Services–Application for Research Authorization was approved from Coolum District with the following guidelines: Teacher, student and parent participation were on a volunteer basis. Solicitation for volunteers was made in accordance with guidelines established. All information and findings related to this project were held in the strictest confidence by the investigator. No reference to individuals, school name(s), and/or Coolum District should be reported without written permission from the Office of Research and Program Evaluation.

CHAPTER IV

The focus of this study was classroom student attendance and its relationship to achievement and student engagement in primary classrooms. This chapter presents the results of this investigation arranged in sections that correspond to the four research questions. In this study Classroom Average Daily Attendance (ADA%) was the dependent variable, provided by Coolum District in an Excel spreadsheet, and converted to Statistical Package for Social Sciences (SPSS) for analysis. ADA% data were collected and analyzed for the 2005-2006 school year from 25 elementary schools in grades one through five for 15 Title I and 10 non-Title I schools. The unit of analysis for this study was the classroom and ADA% was calculated on the sample of 499 grade one through five classrooms.

Research Questions

1. Is there a significant relationship between classroom attendance rates and academic achievement?
2. Is there a significant difference between the classroom attendance rates of students in Title I schools and the classroom attendance rates of students in non-Title I schools?
3. Is there a significant relationship between classroom attendance rates and the mean student engagement?
4. Is there a significant difference in classroom attendance rates between students in grade three (Virginia Standards of Learning testing grade) and students in grades one and two (non-testing grades)?

Data Sources and Statistical Analyses

To answer the four research questions, descriptive statistics, a two-tailed t-test for independent samples, and a Pearson correlation coefficient were used to analyze the data. Results

in this study are correlational and, thus, cause and effect relations among variables cannot be established. Research question one investigates the relationship between attendance and achievement by using ADA% and PALS, a pre and post screening assessment tool described earlier in chapter 3 (see page 50). The Phonological Awareness Literacy Screening (PALS) score metric differs between the fall and spring and between grades. Hence, PALS scores from 157 classrooms were standardized to facilitate descriptive analysis in this study ($M=500$), however, the raw PALS scores were used in the correlational analysis. For research question two, ADA% data were analyzed by Title I and non-Title I elementary schools and further analyzed by grade level to answer research question four. To answer research question three, engagement data were collected from 30 Title I grade one and two classrooms using a Student Engagement Data Collection instrument, adapted for elementary classrooms (DiPaola & Hoy, 2008). ADA% was correlated with the engagement data that was comprised of the number of students either “on task” or “off task” within six 5 minute intervals.

Findings for Research Question 1

1. Is there a significant relationship between classroom attendance rates and academic achievement?

Question 1 examined classroom student attendance rates and its relationship to student achievement. Approximately 50 classrooms of the 499 were eliminated due to incomplete PALS data supplied to the researcher. Complete PALS data were viewed as having two scores, a fall and a spring. Incomplete PALS data may occur when homeroom numbers have been changed, or when a teacher is transferred to another school due to an increase or decrease in student enrollment. An additional eight outliers were eliminated due to extremes of highs and lows in the ADA% or PALS scores of three standard deviations above or below the mean. An extreme found

in ADA% data could be explained as inaccurate data entry, a classroom with one or more medically fragile students or special education homerooms not eliminated from the original data set. Extreme high and low in PALS data may be the result of inaccurate data entry, teacher or student mobility or classroom data collected from schools that offer students extended day programs, tutoring services or other services thought to be pulled from the original data collection before given to the researcher.

Table 2 (page 53) represents the PALS Benchmark Scores for 2005-2006. Benchmarks reflect raw scores for each PALS tasks. The sum of these benchmark scores for the core variables equals the summed score criterion for each grade. These benchmarks are reevaluated based on analyses of statewide PALS results each year (Invernizzi et al., 2003). The pre-and post-benchmark scores are different for the fall and the spring. Since the score metric differs between the fall and spring and between grades, student's fall and spring PALS scores were calculated to find the classroom mean for the fall and for the spring. The classroom PALS score on each of the subscales, fall and spring, was converted to a standardized score with a mean of 500 and a standard deviation of 100 to make comparison with other classrooms possible.

Descriptive statistics for attendance are presented in Table 4 revealed that both grades were averaging 95% ADA or above. These results are heartening as they suggest that ADA% in these two grades across the district are better than 94% required to meet AYP requirements under federal NCLB standards. Table 5 presents descriptive statistics for Standardized PALS scores for Grade 1 and for Grade 2.

Table 4

Descriptive Statistics in ADA % for Grade 1 and Grade 2

Grade	<i>N</i>	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>
1	83	91.78	97.50	95.14	.0122
2	74	93.74	97.73	95.92	.0093

Table 5

Descriptive Statistics for Standardized PALS Scores for Grade 1 and Grade 2

Grade		<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>
1					
	<i>N=83</i>				
Fall		213.09	766.33	500	100
Spring		152.93	720.34	500	100
2					
	<i>N=74</i>				
Fall		156.51	680.17	500	100
Spring		204.94	688.94	500	100

A Pearson correlation coefficient was calculated to provide a numerical description of the degree and direction of the relatedness of ADA% and standardized PALS scores. Table 6 presents the findings for the Pearson correlations using raw PALS data for each grade. In grade

one, a significant correlation was found between attendance and fall PALS scores ($r=.389$, $p < .01$). No correlation was found between attendance and spring PALS scores. In grade two, no correlation was found between attendance and fall PALS scores. A significant correlation was found between attendance and the spring scores ($r=.309$, $p < .01$). The correlations confirm a weak relationship between attendance and achievement in grade one and grade two. Even though the correlation is weak, it confirms what other studies have found: that there is a relationship between attendance and achievement and the more students attend school, the more likely they will achieve academically.

Table 6

Pearson Correlation for Grade 1 and Grade 2 ADA% and Raw PALS Scores

	ADA%	1 F PALS	1 S PALS
ADA%		.389**	.198
2 Fall PALS	.160		.677**
2 Spring PALS	.309**	.815**	

** $p < .01$ level two tailed.

Findings for Research Question 2

2. Is there a significant difference between the classroom attendance rates of students in Title I schools and the classroom attendance rates of students in non-Title I schools?

Average Daily Attendance (ADA%) data were collected and analyzed for the 2005-2006 school year from 25 elementary schools in grades one through five, disaggregated by 15 Title I

and 10 non-Title one schools. Descriptive statistics were calculated for the 499 classes. The mean ADA% was .96 across the district, with a large range between the minimum .87 and maximum .98 mean scores. These ranges can be equated to instructional hours either lost or gained over the period of a school year (see Table 1, page 24). Descriptive statistics were calculated to find the difference between the ADA% of Title I and non-Title I schools (see Table 7) and later within each of the grades one through five. Attendance varied less as students moved up the grades regardless of whether they were in non-Title I or Title I schools (see Table 8). Comparison of descriptive statistics for each grade level for the 25 schools revealed that there was a steady increase of ADA% from grade one to grade four and a slight decrease from grades four to five.

Table 7

Descriptive Statistics for ADA% in Title I and Non-Title I Classrooms

School	N	Min	Max	M	SD
Title I	313	86.56	98.14	95.57	.0137
Non-Title I	186	92.50	98.39	96.07	.0115

Table 8

Descriptive Statistics for ADA% by Grade Level in Title I and Non-Title I Classrooms

Grade	N	Min	Max	<i>M</i>	<i>SD</i>
Grade 1					
Total Classes	112	86.56	97.50	94.97	.0158
Title I	77	86.56	96.83	94.66	.0165
Non-Title I	35	92.63	97.50	95.64	.0113
Grade 2					
Total Classes	104	91.10	97.73	95.69	.0120
Title I	68	91.10	97.47	95.40	.0122
Non-Title I	36	93.78	97.73	96.23	.0096
Grade 3					
Total Classes	92	92.98	98.07	96.06	.0108
Title I	57	92.92	97.69	96.07	.0106
Non-Title I	35	93.04	98.07	96.04	.0113
Grade 4					
Total Classes	95	92.50	98.39	96.18	.0107
Title I	56	93.97	98.14	96.11	.0092
Non-Title I	39	92.50	98.39	96.29	.0127
Grade 5					
Total Classes	96	91.04	97.76	96.04	.0113
Title I	55	91.04	97.68	95.97	.0111
Non-Title I	41	93.03	97.76	96.14	.0117

An independent samples t-test, however, revealed a significant difference between the classroom ADA% in Title I schools as compared to the classroom ADA% in non-Title I schools. The independent samples t-test revealed a statistical difference between the mean attendance rate of classrooms in Title I classrooms ($M = .96$, $SD = .014$) and the mean attendance rate of classrooms in non-Title I schools ($M = .96$, $SD = .012$), $t(497) = 4.22$, $p = .000$, (see Table 9).

The difference between ADA% in Title I classrooms and non-Title I classrooms was significant and reflected a true difference between sample means.

Table 9

Levene's Test for Equality of Variances and Independent Samples t-test Results for ADA% in Title I and Non-Title I Schools
N = 499

Schools	F	Levene's	t	df	Sig. 2-tailed
Title I and Non-Title I	1.46	.23	-4.22	497	.000

Findings for Research Question 3

3. Is there a significant relationship between classroom attendance rates and the mean student engagement score as measured by Student Engagement Data Collection Instrument?

Question 3 examined the relationship between classroom ADA% and the level of student engagement found in 30 randomly selected Title I grade one and two classrooms. Prior studies would predict that the more students are engaged in learning, the more they will want to attend school. In other words, as student engagement increases there is a corresponding increase in attendance rates. The Student Engagement Data Collection Instrument (DiPaola & Hoy, 2008) was adapted for elementary classrooms to provide a measure of engagement as “on task” or “off task” behavior.

Sample

Using Title I grade one and two classroom attendance data, 22 classrooms met the criteria of having ADA at 94% or below. The subgroup percentages were determined based on Virginia's AYP benchmark of 94% average daily attendance. From this sample group, 19 classrooms were randomly selected for this study. The second subgroup percentage was determined by obtaining a large enough sample size to randomly select participants from. Twenty-six classrooms met the criteria of having ADA at 96% or above, and 19 classrooms were randomly selected from this grouping (N=30). The 38 teachers were contacted via email with a letter explaining the purpose of the observation (see Appendix A). Five teachers had either moved schools or changed grade levels, two teachers had student teachers in their rooms at the time and one teacher was no longer with the district. From the 30 classrooms which teachers had welcomed observations, observers had a mix of 15 high and low attendance classrooms.

Observer Reliability

Observer Reliability was calculated on six practice sessions in grades one and two. Both observers observed students using the Student Engagement Data Collection Instrument at the same time in the same classrooms. Observers counted and recorded the number of students who were either "on task" and "off task" according to descriptors provided on the instrument. (see Appendix B). Observers completed six time sweeps with five minutes intervals between sweeps. Observers compared their recordings after each classroom visit. An 80% satisfactory level of agreement was met.

Student Engagement

The Engagement tool was used in the 30 classrooms during the same time period each morning, the Literacy Block. During each sweep, observers counted the number of students who

were either “on task” or “off task.” The number of students “on task” was divided by the total number of students in the classroom to obtain a percentage of students on task for each sweep. Each sweep was then averaged together to arrive at an “on task” percentage for the class value. SPSS was used to determine descriptive statistics and Pearson correlation value r for ADA% and engagement percentage of each class. An independent samples t-test was also calculated to determine whether the means of the two sample groups differed significantly from each other.

Table 10 shows the results of the descriptive statistics calculated for ADA and the percentage of students “on task” (N=30). The ‘on-task’ behaviors ranged from .34 to .93 with the $M = .75$. Descriptive statistics revealed that the number of students found in the classroom ranged from 9 to 23 students.

Table 10
Descriptive Statistics for ADA% and Percentage of Students “On-task” per Title I Classrooms

	<i>Min</i>	<i>Max</i>	<i>M</i>	<i>SD</i>
<i>N=30</i>				
% on task	.34	.93	.75	.15
# of students	9	23	16.7	3.8
ADA	.87	.98	.95	.03

A Pearson correlation coefficient (r) was calculated to provide a numerical description of the degree and direction of the relatedness for ADA% and percentage of students engaged (see Table 11). A moderate positive correlation was found between attendance and engagement. The

correlation of attendance ($M = .95$, $SD = .03$, $N = 30$) and engagement ($M = .75$, $SD = .15$) of students was significant, $r(30) = .404$, $p = .027$.

Table 11
Pearson Correlation for ADA% and Percent of Students "On-task"

ADA	N	<i>r</i>	Sig. (2-tailed)
	30		
ADA		.404*	.027
% on task			

* $p < .05$ level two tailed.

An independent samples t-test determined whether there was a significant difference between the mean of the two sample groups of < 94 ADA% and > 96 ADA%. Table 12 indicates descriptive statistics in ADA% for the two sample groups. The independent samples t-test revealed a statistical difference between the engagement levels of students in classrooms of >96 ADA% and above ($M = .82$, $SD = .09$) and the engagement levels found in classrooms of <94 ADA% and below ($M = .68$, $SD = .17$), $t(28) = 2.78$, $p = .010$. (see Table 13). Variances between these two sample groups were equal. In classrooms where the student attendance was higher, a greater number of students tended to be "on task". In classrooms where the attendance rates tended to be lower, the number of students "off task" was greater. In auxiliary findings, both observers noted in classrooms where student engagement was higher, teachers appeared better prepared, organized and had a quieter, calmer voice tone with students. An observer noted that in one classroom the teacher announced to the students that the visitor "was here to see how hard we work" and data from this classroom may have been compromised by the Hawthorne effect.

Table 12

Compared "On-task" Means for 2 Sample Groups with High and Low Attendance in Title I Classrooms

'On-task'	<i>M</i>	<i>SD</i>
<i>n=15</i>		
> 96%	.82	.09
<i>n=15</i>		
< 94%	.68	.17
<i>N=30</i>	.75	.15

Table 13

Attendance and Engagement-Levene's Test for Equality of Variances and Independent Samples t-test

N = 30

% on Task ADA%	f	Levene's Sig Level	t	df	Sig 2-tailed
	4.06	.053	-2.8	28	.010

Findings for Research Question 4

4: Is there a significant difference in classroom attendance rates between students in grade three (Virginia Standards of Learning testing grade) and students in grades one and two grades (non-testing grades)?

This question was grounded on the notion that accountability measures for grade three teachers may be greater due to the fact that it is a “high stakes” testing grade and that these measures might influence the attendance patterns of students in grade three in positive ways. Teachers in grade three have responsibility for keeping to curriculum pacing, reviewing with students previous curriculum covered in kindergarten through grades two, and making sure students have a bank of test-taking strategies. In particular, grade three teachers are required to meet Standards of Learning benchmarks for school accreditation. In many instances, school administrators strategically place their strongest and most effective teachers in grade three to ensure that these accountability requirements are achieved in a climate of high stakes testing and school takeovers.

With the total number of classrooms (N=308) in grades one through three in both Title I and non-Title I classrooms, descriptive statistics revealed an increase in the mean ADA% (see Table 8) from grade one up to grade three. An independent samples t-test determined that there was a significant difference between the classroom attendance of students in grade three as compared to the attendance rates of students in grades one and two. This analysis was conducted by combining grades one and three and then grades two and three in Title I and non-Title I classrooms. Further analysis was conducted separating for those classrooms in Title I schools and then for classrooms in non-Title I schools. Table 14 presents the findings for the independent samples t-test.

Grade One and Three Across all Schools

The independent samples t-test revealed a statistical difference between grade one classroom attendance ($M = .95$, $SD = .016$) as compared to grade three classroom attendance across all schools ($M = .96$, $SD = .011$), $t(196) = -5.8$, $p = .000$.

Grade Two and Three Across all Schools

The independent samples t-test revealed a statistical difference between grade two classroom attendance ($M = .96$, $SD = .012$) as compared to grade three classroom attendance across all schools ($M = .96$, $SD = .011$), $t(194) = -2.23$, $p = .027$.

Title I - Grade Three and Grades one and two Classrooms

A t-test revealed a statistical difference between grade one classroom attendance ($M = .95$, $SD = .016$) as compared to grade three classroom attendance in Title I schools ($M = .96$, $SD = .010$), $t(132) = -6.0$, $p = .000$. The t-test revealed a statistical difference between grade two classroom attendance ($M = .95$, $SD = .01$) and grade three classroom attendance in Title I schools ($M = .96$, $SD = .01$), $t(123) = -3.2$, $p = .002$.

Non-Title I - Grade Three and Grades one and two Classrooms

A t-test failed to reveal a statistical difference between grade one classroom attendance ($M = .96$, $SD = .011$) as compared to grade three classroom attendance in non-Title I schools ($M = .96$, $SD = .011$), $t(68) = -1.46$, $p = .149$. The means for attendance between grade one and grade three in non-Title I classrooms were not significantly different from each other. A t-test failed to reveal a statistical difference between grade two classroom attendance ($M = .96$, $SD = .009$) and grade three classroom attendance in non-Title I schools ($M = .96$, $SD = .01$), $t(69) = .78$, $p = .438$. The means for attendance between grade two and grade three in non-Title I classrooms are not significantly different from each other.

Table 14

Levene's Test for Equality of Variances and Independent Samples t-test Results for ADA% and Grade 3

N = 308

Grade	Schools	Levene's Sig Level	t	df	Sig level 2-tailed
1 and 3	Both	.03	-5.83	196	.00
2 and 3	Both	.47	-2.23	194	.03
1 and 3	Title I	.08	-5.62	132	.00
2 and 3	Title I	.55	-3.22	123	.00
1 and 3	non-Title I	.97	-1.46	68	.15
2 and 3	non-Title I	.61	.779	69	.44

Summary of Findings

Through the use of descriptive statistics, Pearson Correlations and independent t-tests, student attendance and its relationship to student achievement and to student engagement was examined. Overall the findings of this research are consistent with the results of the review of the extant literature. The following are the major findings from this study.

Classroom attendance and academic achievement

Designed to investigate student attendance and its relationship to student achievement, this study examined achievement data from 83 first grade classrooms and 74 second grade classrooms. From this sample, descriptive statistics established that ADA% was lower in grade one than in grade two. A Pearson correlation coefficient was calculated to provide a numerical

description of the degree and direction of the relatedness of ADA% and PALS scores. Results from grade one found a significant correlation between attendance and fall achievement scores. No correlation was found between attendance and spring PALS scores. In grade two, no correlation was found between attendance and fall PALS scores. A significant correlation was found between attendance and the spring scores.

Attendance of students in Title I and non-Title I classrooms.

Designed to analyze whether ADA% differed in Title I and non-Title I classrooms, data from 499 grades one through five classrooms found that classroom attendance in Title I schools was significantly different than what was found in the classroom attendance in non-Title I classrooms.

Classroom attendance and student engagement.

To investigate whether a relationship could be found between student attendance and engagement in classrooms where attendance was either low (< 94 ADA%) or high (> 96.3 ADA%), observers collected engagement data from 30 Title I classrooms. The number of students in the classroom ranged from 9 to 23 with “on-task” behaviors ranging from .34 to .93. A moderate positive correlation was found between attendance and engagement. The correlation of attendance and engagement was significant. An independent samples t-test determined a statistical difference between the engagement levels of students in classrooms of >96.3 ADA% and above and the engagement levels found in classrooms of <94 ADA% and below. In classrooms where the student ADA% was higher, a greater percentage of students were “on task” and in classrooms where ADA% was lower, a greater percentage of students were “off task.”

Classroom attendance of students in testing and non-testing grades.

To explore whether ADA% was different in Grade three classrooms as compared with the classroom attendance of students in grades one and two, descriptive statistics were calculated for 308 classes revealing that at each grade level across the 25 schools a mean increase in ADA% was found. An independent samples t-test revealed a statistical difference between grade one and grade three, and between grade two and grade three classroom attendance across all schools. A further analysis found that grade three attendance was significantly different irrespective of whether grade three classrooms were in Title I or non-Title I schools.

Chapter V presents a discussion of findings from this study, conclusions based on the data collected and analyzed during this study, and implications of findings for future research and practice.

CHAPTER V

Summary, Discussion and Implications

As a result of federal educational priorities and legislative policies, the nation's attention is focused on student nonattendance, truancy, and drop-out statistics, with data signifying a problem far worse than previously acknowledged or understood. Absenteeism, truancy, and early school dropout rates challenge present day compulsory attendance laws. The economic, social and educational costs to students, school systems and, ultimately, to society of nonattendance is significant. Causes of nonattendance have been identified and strategies have begun to address underlying causes with most studies focused at the high school level. Very little research has focused on the early years of schooling even though it is well recognized that early school learning provides the foundation for life long learning attitudes and future success in school as well as career opportunities.

This chapter provides a discussion of the research findings from this study as they relate to this national issue and how these findings relate to the larger body of research and literature on student attendance, achievement and student engagement. Implications of the research and recommendations for further study will be addressed.

Discussion of Findings

Three themes guided this present study, student attendance, student achievement and student engagement. The discussion of findings are summarized under the following headings: Classroom Attendance and Academic Achievement; Attendance of Students in Title I and non-Title I Classrooms; Classroom Attendance and Student Engagement; and, Classroom Attendance of Students in Testing and Non-testing Grades.

Classroom Attendance and Academic Achievement

Many variables affect student achievement (Evans, 2004; Finn et al., 1995; Finn & Rock, 1997). The quest to find specific variables to better address achievement gaps between students with limited English proficiency or poverty and those of the general student population will continue. After the passage of the NCLB Act, student attendance was monitored alongside trends in reading and mathematics achievement as a variable believed to influence student achievement. With the foundations for future academic success established in these earliest years of schooling where the basic skills of reading and writing are mastered, common sense dictates that young students need to be in school everyday to learn.

Prior studies have found a relationship between student attendance and student achievement (Chatterji, 2006; DeKalb et al., 1999; Johnston, 2000; King, 2000; Lamdin, 1996; Railsback, 2004; Roby, 2004). Based on past studies, it was presumed that classrooms in this study with higher ADA% would have greater gains on The Phonological Awareness Literacy Screening (PALS). In grade one, a significant correlation was found between attendance and the fall PALS scores. No correlation however, was found between attendance and the spring PALS scores. In grade two, the reverse was found. No correlation was found between attendance and fall PALS scores and a significant correlation was found between attendance and the spring PALS scores. The correlations found a weak relationship between attendance and achievement in grade one and in grade two. Even though the correlation is weak, it supports what other studies have found, that there is a relationship between attendance and achievement and the more students attend school, the more likely they will achieve academically.

Low family income, a description which characterizes approximately 48% of Coolum's student population, along with a variety of negative factors associated with poverty, can have

profound and significant effects on how well students do in school (Evans, 2004; Slaven, 1999). Mobility and its affect on achievement is well documented (Hinz et al., 2003; Railsback, 2004). Mobility of students, not only from low income families but also from the presence of a military base in the district, may explain the inconsistent correlation between classroom attendance and the fall and spring PALS scores in first grade and second grade.

The PALS is administered after the student has been in school for about eight weeks by the classroom teacher in a on a one-on-one, teacher/student situation. The relationship found between attendance and achievement in the fall first grade classrooms, but not in the spring, suggests that something might be happening in the fall that may not occur as the year progresses to the spring when the PALS is administered again. Perhaps in the fall, the younger student is very eager to be back at school after a long summer and engaged in the learning activities, meeting new friends and becoming familiar with the expectations of the classroom. Instruction is focused on overcoming summer learning loses particularly in literacy areas. Research has linked higher levels of student engagement with improved performance and behavior in school (Connell, & Wellborn, 1991; Finn, 1989; Finn, 1993; Klem & Connell, 2004; Voelkl, 1995). Perhaps engagement and learning is at its peak the first eight weeks of school. Another variable that may contribute to these findings is the role home support plays in learning. Also worth exploring are the feelings of competence that a younger student develops as they progress through the year and as they mastery early reading and writing skills. For students who begin to realize they are falling behind in learning expectations, they may begin to avoid aspects of school that they find undesirable and frustrating (Hess, 1989). The self-confidence and competency of a young student could be a plausible explanation for the results found in first grade, but would contradict results found in grade two where a correlation was found between attendance and

PALS in the spring scores. It would be judicious perhaps to consider each grade as a separate entity with difference characteristics and resources and not attempt to make comparisons between the two grade levels.

Many questions still remain as to whether attendance is a significant correlate in achievement in the early years or whether school attendance has a differential influence on achievement, depending on backgrounds of young children (Chatterji, 2006). The challenge is finding adequate achievement measures that match the learning styles and dispositions of young children. Using PALS may not have been the best measure of achievement due to its diagnostic qualities and to the different pre- and post-benchmark scores for the fall and the spring. Other standardized measures for achievement may have yielded different results.

In this study of the primary grades, and for this particular school year, student attendance was found to be the lowest in grade one. This was a particularly disturbing finding given how critical grade one is for gaining the fundamentals of reading and writing. In Virginia, Title I schools have a funding structure for extra reading personnel to assist students who have not met the fall PALS benchmark score. When students are absent from school or begin to develop patterns of non-attendance, the benefits from these extra resources cannot be realized and the seeds of non-attendance and school failure may begin to germinate. Attendance rates in elementary school have been found to be highly predictive of dropping out (Hess, 1989). The search for a relationship between attendance and achievement continues to be a worthwhile research endeavor.

Classroom Attendance of Students in Title I and of Students in Non-Title I Schools.

The NCLB Act places an emphasis on achievement by all groups of students, particularly those who are historically low achieving, such as ethnic minorities, socio-economically

disadvantaged students, or special needs students. Title I schools have been held more accountable for gaps in attendance rates and equitable achievement outcomes for all students across the United States. Recent studies have found a student's socio-economic status (SES) is not the main determinant in the nonattendance of students (Bridgeland, DiIulio, & Morison, 2006; Chatterji, 2006; Railsback, 2004; Smink & Reimer, 2005). Coolum District has directed additional human and financial resources to assist Title I schools with non-attendance concerns and with closing the achievement gap. The district has also stiffened policies and penalties for parents and caregivers of elementary school-aged students who do not send their children to school regularly.

The results of this study indicated a significant difference between the attendance rates of students in Title I schools and those in non-Title I schools. There are many limitations of using attendance data for only one school year. One limitation is that it does not provide a picture of change. While student attendance was found to be significantly different in Title I schools, growth toward closing this gap could not be measured unless data were analyzed over several years. The difference found in attendance between Title I and non Title schools however highlights the urgency to continue to find solutions to close attendance gaps, given that student attendance is critical to future school success. These results also highlight the need to critically analyze the impact of attendance policies and procedures for their effects on student attendance. Future analysts might want to examine the financial resources and school practices implemented over the past six years in Title I schools for their effectiveness in increasing student attendance.

Classroom Attendance and Student Engagement

This research question examined the relationship between classroom attendance and student engagement. Engaging students in the learning process is the heart of the work of

educators and is seen as a valuable resource in learning (Gambone et al., 2002). Finn (1989) describes student engagement as participation and involvement in the classroom with content, academics, and extra curricula activity and through the emotional belonging or identification with the class or school. Engagement behaviors have been described as showing effort, concentration, attention to task, being responsive, asking questions, and contributing in interactions (Birch & Ladd, 1997; DiPaola & Hoy, 2008; Finn & Voelkl 1993). These “on task” behaviors could be demonstrated by writing, reading, and hands-on activity. “Off-task” behavior is characterized as inattentive, (distracted or daydreaming), doing other work, engagement in conversation with peers, disturbing others, and playing (DiPaola & Hoy, 2008).

Prior studies on engagement have found that the more students are engaged in learning, the more they will want to attend school (Bridgeland et al., 2006; National Research Council & Institute of Medicine, 2003). Attendance studies have not generally been in the primary school setting, where evidence of this relationship might be found. This investigation was based on several premises: it is important to keep students engaged in the classroom; engagement is a valuable learning resource; engagement is an outcome of classroom processes (Finn, & Voelkl, 1993) and engagement levels can be affected and orchestrated by the teacher (Greenwood et al., 2002; Klem & Connell, 2004; Skinner & Belmont, 1993).

In the 30 Title I grade one and two classrooms used in this study, statistical significance was found between student attendance and the level of student engagement. Student engagement was calculated by counting the number of students either “on task” or “on task” during six time sweeps with 5-minute intervals between each sweep. Ideally, snapshots of engagement over several weeks at different times of the year would enhance results in any future undertakings.

Nevertheless, the present results are meaningful and important to understanding student attendance.

Young students demonstrate their engagement overtly (Skinner, & Belmont 1993). These overt behaviors facilitate the capability of observers to observe accurately younger students in classrooms and be able to count the number of students either “on or off” task within a set time period. Young students enter our school doors as eager learners and it is the cumulative effects of non-engagement behaviors on learning and school attendance that should be the concern of educators.

Finding a significant relationship between student attendance and “on task” engagement behaviors, suggests that the non-attendance of elementary students is worthy of greater attention. High school students have been quite candid in talking about the importance of being engaged in learning and how engagement in the program and purposes of schooling had made a difference to their decision to either come to school or to stay home (Bridgeland et al., 2006; Clement et al., 2001; Railsback, 2004; Rohrman, 1993; Wagstaff et al., 2000). Conceivably, the younger learner wants to be engaged in learning. In Cox’s interviews (2006), younger students revealed that they wanted more hands-on, experiential learning activities, with tasks that employed multiple learning modalities, such as art, science and math. Cox (2006) also found that repeated paper/pencil testing depressed attendance rates because children were more likely to skip or feign illness on these days. For young students who do not have as much control over their decision to attend school, studies investigating the relationship between attendance, engagement and disciplinary referrals could provide some additional findings.

Engagement data were collected in Title I classrooms, where attendance has been the target of NCLB policies and where the attendance has been historically different from the

attendance found in non- Title I classrooms. One of the most surprising aspects of this study was the wide range of “on-task” behaviors found in classrooms during the morning Literacy block where instruction in reading and writing should be the most directed and well planned. When students were in classrooms where the attendance rate was 96% or better, a greater proportion of students were found “on task”. In classrooms where the attendance rates were 94.0% and below, the proportion of students found “on task” was significantly less.

Effective teachers create learning environments where students are engaged in learning (Stronge, 2002) and strive to participate (Finn, 1993). As we begin to understand some of the factors that contribute to the non-attendance of young students in the Title I schools, it is hoped that future studies will continue to investigate the level of engagement found in the classroom and its relationship to attendance. Regardless of gender, race, or SES, engagement can be a powerful resource for students. Conversely, low engagement in school can be a liability (Gambone et al., 2002; Klem & Connell, 2004).

Classroom Attendance Rates between Students in Testing and Non-testing Grades.

This research question compared the classroom attendance rates of students in grade three, a Virginia Standards of Learning testing grade with the classroom attendance of students in first and second grades; grades in which the standards of learning are not administered. This question was grounded on the notion that accountability measures for grade three teachers may be greater due to the fact that it is a “high stakes” testing grade and that these measures might influence the attendance patterns of students in grade three in positive ways. In particular, grade three teachers are required to meet Standards of Learning benchmarks for school accreditation.

Of particular interest was the finding that grade three attendance was significantly different from grades one and two and this significant difference was found in both Title I and

non-Title I classrooms. This result warrants further investigation because of the earlier findings in research question two, which found through descriptive statistics, that ADA% was lower in Title I classrooms. A number of variables could explain this phenomena of why grade three attendance was better in both Title I and non-Title I classes during the one year analysis of this study. It is likely that leaders in schools have been proactive in ensuring their school meets full accreditation by the state. Strategically placing strong and effective teachers in the testing grades to ensure accountability requirements are achieved is just one adopted practice. Close monitoring of classroom instruction and ensuring that professional development is of the highest quality and aimed at the specific needs of the teacher is another.

When Darling-Hammond, (1996) pondered the question of how to achieve accountability for student learning, which she defined as responsible decision making based on knowledge and the best interests of students, she argued that increased accountability would result in the establishment of clear professional standards of practice, more professional approaches to education, school districts making decisions more responsibly and encourages more involvement of teachers and parents. Perhaps Darling-Hammond's vision of accountability offers an explanation of these results. Further thought and important discussion might find reasons why student attendance crossed over the historical boundaries of non-attendance often found in Title I classrooms. A future study could also examine the attendance and engagement levels of grade three students, followed by discussions with teachers, principals and district leaders.

Limitations of Study

This study had several limitations. Future studies have access to and can utilize information from the sophisticated data collection systems now established in school districts across the United States to better track data required by state and federal governing agencies.

Future studies could attempt to gather data from a number of urban districts and use longitudinal attendance data instead of just data from one year. Attempting to correlate attendance data with the PALS instrument was a limitation in this study due primarily to the nature of the instrument itself. It is unknown how much or to what degree the mobility of students may have influenced results.

Using attendance data from 2005-2006 and correlating it with engagement data collected in 2006-2007 was a definite limitation. Teachers may have developed “best practices” from the year ADA was calculated to when engagement observations were taken. Student dynamics in the classroom and student characteristics change with each new, incoming class. When using ADA%, we are not privy to information that could explain a low attendance rate, for example, a teacher could have a student with a terminal illness requiring frequent hospitalization. This could affectively bring ADA% to below 94%. To investigate attendance and engagement in this case may lead to inaccurate correlational findings.

A third limitation was the small sample of 30 teachers while collecting the engagement data. A larger sample would provide more observations to correlate with attendance data. Longitudinal observations throughout the school year would provide more accurate data as to the mean level of engagement found in classrooms. Not only does a small samples size affect the analysis, it also leads to issues of confidentiality, because of the ease of identification of teachers with lower and higher attendance rates. In several classrooms the Hawthorne effect may have occurred and this effect may not have allowed for accurate data on engagement to be measured.

Implications of the Study

Implications for Policy and Practice

This study has multiple implications for educational policy and practice. Firstly, the literature review has pointed to some background factors, including membership in a particular ethnic, socioeconomic, or even gender group, most likely to influence a student's decision to stick with and be successful in school. We know many of these challenges can be buffered by a variety of school supports found to protect the same high-risk students from academic failure (Finn & Voelkl, 1993; Garmezy, 1993; Garmezy & Masten, 1986; National Research Council & Institute of Medicine, 2003; Werner, 1993). In finding a relationship between attendance and engagement, one such 'buffer' may be having young students engaged in the learning program. Although we only used a one year snapshot of attendance data, we continue to have an attendance gap between Title I and non-Title I schools despite national, state and local educational reform initiatives and strategies to improve attendance. Unless this attendance gap is addressed, it will be difficult to imagine how schools with diverse populations will meet AYP requirements in closing the achievement gap. While there are "no silver bullet approaches proven to keep children in school" (Railsback, 2004, p. 3), there is a need to keep looking for other answers as to why young students in particular are choosing not to come to school.

Teachers and others concerned with the provisions of education should continue to look for alternate solutions to increasing student attendance. I suggest that observing teacher behaviors and their ability to engage young students may provide insights into the non-attendance of young children. We must assess the weaknesses and strengths of current practices and look at promising practices that have increased student attendance.

This study has contributed to the larger body of evidence regarding student attendance with a particular focus on primary classrooms. According to some studies, interventions that start in primary classrooms are more effective in increasing attendance than those that begin in middle school or ninth grade (Holbert, Wu, & Stark, 2002). Systemic solutions to attendance problems will originate from schools that are made up of teachers and administrators who understand the connectedness of engagement and its effect on early attendance patterns in elementary schools.

Securing all children's right to learn in the way that new standards suggest and today's society demands requires a change in teaching that is much more profound than merely covering more facts or getting through more chapters in a textbook. The way we teach must change (Darling-Hammond, 1996). Changing teacher's behaviors to those that promote the engagement of students should be the top priority of education reforms. The teacher is central to student engagement (Skinner & Belmont, 1993). In this study engagement was presumed to occur through strong teacher instruction and positive teacher student relationships. The more effective the teacher, the higher the level of student engagement observed in the classroom and the higher the rate of student attendance. Working to help a child establish a positive relationship with the teachers and school system in the earliest grades would seem to be more feasible than working to rectify a negative relationship as the student moves up the grades (Holbert et al., 2002).

This study offers school administrators, staff developers and teachers a fuller understanding of the impact of teacher pedagogy, specifically that of student engagement, on the eagerness of a young learner to come to school every day. This study also adds to the body of knowledge supporting well designed, schoolwide professional development efforts and the allocation of resources intended to reshape how students experience school. Professional development activities can enhance teacher instructional practices that directly increase student

engagement in elementary classrooms, breaking the pattern of nonattendance as the result of gradual disengagement with the classroom-learning environment.

Recommendations for Future Research

The results from this study provide fertile ground for possible future research efforts particularly in the early school years where research on attendance is scant. Based on the results of this study, further research into the patterns of attendance are needed, particularly in primary grades where the fundamental grounding for literacy development occurs and significantly impacts future school success and job opportunities. With increased accountability demands and data collection clearinghouses, districts now have access to rich attendance data sources.

The influence of attendance on student achievement is an important and potentially illuminating issue to address. This will require finding better assessments or developing standardized testing measures to determine achievement gain. Based on the relationship found between attendance and engagement, this study suggests longitudinal studies to determine further the relationship between student engagement and student attendance and its effects. Extending research to encompass grades three through five would provide strength to the findings found in this study. Engagement data should be collected in longer time sweeps and analyzed or be collected over the period of the whole school year, for example, once every six weeks.

Because most the attendance research has focused on the middle to high school years, it would be particularly interesting to investigate the effects of student engagement on achievement and attendance in the early years of schooling. One premise of this study has been that effective teaching is what makes a difference in attendance and in student learning. Based on this assumption, it would be worthwhile to conduct in-depth qualitative observations on what specific

teacher behaviors impact a young student's desire to come to school and to be engaged in learning.

In a climate of school accreditation and high stakes testing, it could be worthwhile to compare attendance data from the testing grades and non-testing grades across the state of Virginia. Results might provide more discussion as to whether the results found in this study was unique only to Coolum District or whether it is a pattern that exists across Virginia.

Conclusion

This study has focused on attendance, achievement and engagement in the primary grades, where little research has been centered and where opportunities to delve further into variables that affect attendance exist. The accumulated evidence from the present study points to a simple conclusion: student attendance is important in the early years of schooling and engaging students in learning may be related to a young student's decision to come to school. What happens in the classroom is at the heart of keeping students in school and what students experience during their early years of schooling is key. As Slavin (1999) stated, "there are no guarantees that success in the early grades will guarantee success in later schooling, but failure in the early grades virtually ensures failure in later schooling" (p. 105).

NCLB was written to increase accountability and achievement between various student sub populations in Title I schools. This study found that an attendance gap exists between students in Title I and non-Title I schools. The NCLB Act has required states to provide student attendance data as an additional indicator of school performance since 2001. While socioeconomic influences may contribute to the nonattendance of students, (Bourke et al., 2000; Lee & Burkam, 2003; Ogbu, 2002; Reid, 1995; Woods, 1995) studies have countered this argument by highlighting school-based factors that have succeeded in decreasing the truancy and

drop out rate for students of poverty. These classrooms have students attending willingly and finding academic success (Alexander et al., 1997; Bourke et al., 2000; Bridgeland et al., 2006; National Research Council & Institute of Medicine, 2003; Olson, 2006; Roby, 2004; Railsback 2004; Shannon & Bylsma, 2003; Smink & Reimer, 2005; Wimberly, 2002; Woods, 1995). Given the NCLB Act's target for schools to close achievement gaps by 2014, we must continue to seek out solutions that bring students to classrooms and to the table of learning.

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Appendix A

Research Participants Letter

Dear,

Greetings! My name is Roberta Thayer-Smith, and I am a graduate student working on my dissertation through the College of William and Mary, School of Education. You have been **randomly selected** from all grade 1 and grade 2 teachers in Coolum District to participate in my study and I hope you will allow me to come into your room one morning for approx. 30 minutes to complete an **Engagement Behavior Observation** sheet of your students. **You will not need to change your program in any way. Teacher's names will remain anonymous.** I will not need to know the names of any students. I will just come in and sit at the back of the room.

Your principal and the Executive Elementary Directors have been informed of this study.

I will be pleased to share my observations gained from the time I will be in your classroom. Please respond back to this email address XXXXXXXXXX or contact me at XXXXXXXXX

Thank-you for your support in this data collect journey.

Roberta Thayer-Smith

Appendix B

Student Engagement Data Collection:

Adapted for an Elementary Classroom

Teacher's Name/Room #	
Total number of students	
Male	
Female	
Grade level	
Start time – End time	

Activity	Teacher Behavior
1	
2	
3	
4	
5	
6	

	Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 6	Totals
# On Task							
# Off Task							

Student Behaviors:

On Task:

- N1 – attentive
- N2 - writing
- N3 - responding
- N4 - reading
- N5 - hands-on activity

Off Task:

- F1 - inattentive (distracted or daydreaming)
- F2 - doing other work
- F3 - engaged in peer conversation
- F4 - disturbing others
- F5 - playing

Appendix C

Status of Protocol –EDIRC

This is to notify you on behalf of the Education Internal Review Committee (EDIRC) that protocol EDIRC-2007-01-26-4559-rathay titled Classroom Student Attendance and its relationship to achievement and student engagement has been exempted from formal review because it falls under the following category(ies) defined by DHHS Federal Regulations: .

Work on this protocol may begin on 2007-02-06 and must be discontinued on 2008-02-06. Should there be any changes to this protocol, please submit these changes to the committee for determination of continuing exemption using the Protocol and Compliance Management channel on the Self 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 FOUND TO COMPLY WITH APPROPRIATE ETHICAL STANDARDS AND WAS EXEMPTED FROM THE NEED FOR FORMAL REVIEW BY THE COLLEGE OF WILLIAM AND MARY PROTECTION OF HUMAN SUBJECTS COMMITTEE (Phone 757-221-3966) ON 2007-02-06 AND EXPIRES ON 2008-02-06.

You are required to notify Dr. Ward, chair of the EDIRC, at 757-221-2358 (EDIRC-L@wm.edu) and Dr. Deschenes, chair of the PHSC at 757-221-2778 (PHSC-L@wm.edu) if any issues arise during this study.

Good luck with your study.

Vita

Roberta Adams Thayer-Smith

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