

THE RELATIONSHIP OF STUDENT FAMILY STRUCTURE AND ABSENCE TYPE  
TO READING ACHIEVEMENT

by

James Timothy Hixson

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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### **Abstract**

James Timothy Hixson. THE RELATIONSHIP OF STUDENT DEMOGRAPHICS AND ABSENCE TYPE TO STUDENT READING ACHIEVEMENT. (under the direction of Dr. Karen Parker) School of Education, Liberty University, September, 2011.

Middle school students are affected to different degrees by absences from school. While social learning theory suggests students acquire new skills through observation and modeling, some students are more able than others to compensate for school absences.

Research has shown that a student's family structure can influence achievement.

Unexcused absences have also been linked to lower achievement than excused ones.

Excessive unexcused absences have also been associated with family problems including insufficient support for school endeavors. This quantitative causal comparative research study will examine the relationship between family structure and absence type to reading achievement in a Title I school. Data collected from school records will be analyzed to determine whether each variable influences the way absences affect reading achievement.

Descriptors: absences, achievement, family structure, Title I, reading.

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## **Dedication**

First and foremost, I dedicate this to my wife Jamie whose love and support made this endeavor possible. We have traversed many challenges together, and this project is only the latest. I would also like to recognize my children and foster children for their patience on many nights when I was unavailable, short on patience, and in need of quiet study time. In many ways, this was a family effort and I want to acknowledge their many sacrifices that made this project come to fruition.

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## CHAPTER 1: INTRODUCTION

### Background

This study is designed to determine which factors are associated with students whose reading achievement suffers the most from school absences. Some students who are frequently absent still manage to become proficient readers, while others fall further behind with each class period they miss. Research results suggest the student's family background plays a significant role in the extent to which absences affect achievement. The child's family structure along with the number of unexcused absences can both provide clues as to how a student's family influences the way absences impact learning.

Accumulating five or more absences during a school year has been shown to have a deleterious effect on student achievement, even if the absences are excused (Georgia Department of Education [DOE], 2011a). In 2010, almost 10% of Georgia public school students were absent for 15 day or more (McGiboney, 2012). The number of 8<sup>th</sup> graders missing 15 or more days of school was even higher. A total of 12.3% of Georgia 8<sup>th</sup> grade students missed 15 or more days of school in 2010 (McGiboney, 2012, slide 7). This obviously makes educating middle school students a challenge, as a substantial number of them are prone to be absent on any given day.

All 50 states have compulsory attendance laws which require school-aged children to attend school until they reach a certain age, usually 16 or 17 (National Center for Education Statistics [NCES], 2011). If parents opt not to send their children to a public school, they may choose either a private, charter, or home school alternative. The State of Georgia has taken the additional step of allowing fines for the parents of students

who miss five or more days of school during an academic year (Georgia Compulsory Attendance Law, O.C.G.A. 20-2-690.1, 2007).

Absences from school do occur for various reasons, so most states make provisions for students to miss school under certain circumstances. To be considered an excused absence, a parent must provide written documentation to school officials within a short time frame giving the reason for the absence (Coweta County Board of Education Manual, 2011). Excused absences may occur for illness, funerals, religious observances, and court appearances.

Because of the importance of regular school attendance, many state and federal education initiatives provide incentives for improving student attendance and sanctions for schools who fail to do so. Though it is ultimately the parents' job to see that their children attend regularly, schools do have the ability to influence student attendance rates (Henry, 2007). Regular, positive communication with parents is a key component in any program aimed at improving attendance (Guare & Cooper, 2003). Other effective strategies include parental notification of absences, contracts, rewards, and counseling (Sutphen, Ford, & Flaherty, 2010).

The modern school accountability movement is personified by the No Child Left Behind Law of 2002 (NCLB). This nationwide, sweeping legislation required regular achievement gains in Grades 3 through 8, culminating with all children performing on grade level by the year 2014 (Mathis, 2006). As the target year drew closer, it became obvious that this underfunded, perhaps over-ambitious endeavor was destined to leave many otherwise outstanding schools labeled as needing improvement. This was due to the many subgroup targets which were becoming increasingly difficult to meet (Forte,

2010). In February, 2012, 10 states received federal waivers from the provisions of NCLB, to be replaced by federally-approved state plans (Badertscher, 2012). The new standards are what the Georgia Department of Education called “ambitious but achievable” (2011b, p. 49).

The current status of the accountability movement is fluid as educators wait to see whether the federal government will replace NCLB with a new law, or allow each state to come up with federally-acceptable standards of their own. One thing is clear, however, student achievement and attendance will continue to be key components of the overall accountability debate. The federally-approved Georgia waiver, for instance, requires school leaders to incorporate student attendance into school improvement plans (Georgia DOE, 2011b). Also included are provisions for measuring student achievement using “open-ended, performance-based items and tasks” (p. 47). While some of the structure and assessment mechanisms are changing, the emphases on student reading achievement and improving attendance remain in place.

Despite all the laws, improvement plans, and initiatives currently being utilized, students sometimes miss school for reasons which are not sanctioned by school officials. These ‘unexcused’ absences start to increase in frequency during the middle school years (Railsback, 2004). In addition to allowing time for children to engage in dangerous or delinquent activity (Henry, 2007), unexcused absences have been linked to achievement lags, both in terms of grades and standardized achievement scores (Finlay, 2006; Gottfried, 2009).

Some unexcused absences are actually condoned by parents (Sparks, 2011), while others are merely tolerated (Sheppard, 2010). The degree and extent to which unexcused

absences occur can reveal clues about the attitudes parents have towards their child's school and towards school in general (Sheppard, 2009). Regardless of the reasons for absence from school, the academic progress of some students appears to be affected more than that of others.

While numerous studies have attempted to determine the overall academic impact of school absences, relatively few recent studies have specifically examined why absences impact reading achievement in some students more than others. Knowing which students are at greatest risk of falling behind would provide a means for school officials to lend targeted assistance to students who are at risk following absences from school. Perhaps no variable plays a larger role and has a greater influence in a child's life relative to school absences than their family.

The family background of students has been linked in numerous studies to academic achievement (Sheppard, 2009; Sirin, 2005). While the values and attitudes learned from parents has been shown to associate with student achievement (Chang and Romero, 2008), the structure of a child's family has also been linked to academic progress (Heard, 2007). The association between family structure and achievement appears to be particularly strong for students entering their middle school years (Hines, 2007). The makeup of American families has changed greatly over the last generation and continues to change. It is important for educators to be aware of the relationship between family structure and achievement if schools are to serve students from diverse backgrounds (Lee, Kushner, & Cho, 2007). For these important reasons, the relationship between family structure and student achievement in middle grades is one key variable in this study.

The structure of a student's family also appears to be associated with their rate of school attendance (De Vos, 2001; Henry, 2007). School attendance is in turn, associated with achievement (Gottfried, 2010) as well as the likelihood a child will engage in unhealthy and delinquent activities (Eaton, Brener, & Kann, 2008). Some research studies have examined the association between family structure and student truancy rates (Henry, 2007). A good many more studies have focused on the relationship between attendance and achievement (Gottfried, 2009). Few studies, however, have specifically sought to understand how family structure and attendance work together to impact student learning.

Whether a child lives with biological parents, a single parent, a step-parent, or a guardian appears to associate with both academic progress and school attendance. This relationship becomes even more pronounced as a child enters adolescence (Henry, 2007). The number of American students living with both biological parents is approximately four out of 10 (U. S. Census Bureau, 2010), so it is safe to assume a majority of students today are in a family environment with the potential to affect both their school achievement and attendance. These factors justify a consideration of family structure and its influence on reading achievement.

An examination of family structure or SES by itself might produce misleading results. Family structure and poverty, though linked in some studies to higher rates of truancy, do not provide a clear enough picture of what *value* is placed on education in the child's family. There are clearly many single parent households and households with families living below the poverty line which are producing high achieving students. An

additional variable is needed to understand the dynamics which affect student attendance and academic progress.

The type of absence, whether excused or unexcused, may often yield clues about the value a child's parents place on education. An active, involved single parent, for instance, is unlikely to tolerate high numbers of unexcused absences (Sheldon, 2007). Albert Bandura's social learning theory might provide clues to understanding the way in which parents model their values and attitudes toward school by way of their acceptance of unexcused absences.

Social learning theory holds that skills are acquired when a child sees them modeled and then begins to replicate them (Bandura, 1977). This study focuses on reading achievement because reading is a skill modeled by classroom teachers, and students miss out on this when they are absent from school. Of particular interest is which students are able to grow and develop their reading achievement, despite absences from school. Perhaps some parents value and model reading at home and this helps offset the absence of modeling which occurs when a student misses school. Reading is not the only thing being modeled for students. Students see many other skills and values being modeled for them both at school and at home.

Parents model values for children at home. The values related to the importance of school, learning, and attendance are modeled implicitly and children are gradually influenced by this. The number of unexcused absences from school may provide an important insight into the values regarding education and school attendance in a child's home. This is significant because values and expectations play a large role in student achievement.

Taken together, family structure and absence type may provide clues as to which students are more likely to fall behind after being absent from school. While both of these variables are beyond the control of school officials, their significance in terms of impacting student achievement warrants further study. In this particular study, however, a significant underlying variable exists which needs to be taken into account; poverty.

The setting of this study is a Title I middle school in Georgia. Title I is a part of a law originally passed in 1965, called the Elementary and Secondary Education Act (U. S. DOE, 2012). This law was designed to help schools address the needs of students living in poverty. While the law also addressed limited English-proficient, migratory, children with disabilities, and even “young children in need of reading assistance” (p. 1), Title I is most known for its role in meeting the needs of students from lower-income families. Family income is typically determined by eligibility for federally-funded free or reduced lunch at school.

Schools send home a free or reduced lunch application each academic year, and parents indicate the number of children in the household, along with the total family income. This information is confidential, so only a few school personnel have access to it. The United States Department of Agriculture publishes guidelines relative to which students are eligible for free or reduced lunch depending on their household size and family income (2008).

In most states, schools with a certain percentage of students eligible for free or reduced lunch qualify to become Title I schools. This percentage varies by school district and state but it is usually at least 35% (Georgia P. I. R. C., 2012). Schools designated

with Title I status received additional funding from the federal government to assist with teaching and learning; particularly with disadvantaged students. Almost 60% of the students at the school in this study are eligible for free or reduced lunch, so the impact of poverty on student achievement cannot be overlooked.

Numerous studies have linked poverty to lower academic achievement (Chang & Romero, 2008; Chatterji, 2006; Dahl & Lochner, 2005). Since many students at a Title I school are living at or below the poverty level, they are already statistically more likely to struggle in school (Sirin, 2005). For this reason, the effect student absences might have on top of student socioeconomic (SES) status warrants examination.

Student SES status has been linked to achievement, but in such a large way as to make it problematic as a variable in this study. SES is such a powerful indicator of academic success (Sirin, 2005) that using it as a variable might occlude other factors. The foci of this study, therefore, are the family structures and attitudes instilled in students, as evidenced by the proportion of absences which are unexcused. These variables are being considered, however, in the context of a Title I school setting, so poverty, while not directly studied, must be considered to be an important factor.

The reason a student is absent has been shown to be strongly associated with the resulting academic consequences for the absence (Finlay, 2006; Gottfried, 2009). A high number of unexcused absences relative to the total can also be indicative of an unsupportive parental environment (Sheldon, 2007). This study seeks to determine whether absence types appear to be associated with student reading achievement in middle school. If such an association exists, it may suggest a connection between the values and attitudes toward school held by parents and the subsequent achievement



resulting in their frequently absent children. Since very few studies have specifically focused on these issues in a middle school setting, this study would provide important clues about how these variables interact.

### **Problem Statement**

Student parental structure and reasons for absence from the school have both been linked to academic achievement (Cavanagh, Schiller, & Riegle-Crumb, 2006; Dahl, & Lochner, 2005). According to Bandura's (1977) social learning theory, the modeling of skills plays a role in the way students learn skills such as reading, and this is obviously less likely to happen when a child is absent from the classroom. Students also learn values which are modeled in the home, and these values can include the importance of attending school regularly. The number of unexcused absences is one way of examining the values being transmitted in the child's home, as parents who strongly value education are not likely to allow a large number of unexcused absences (Sheldon, 2007).

There is a lack of clarity in research literature as to how these variables influence which students' academic progress are affected most by absences from school. Though studies exist which examine each of these variables singly, few, if any, have incorporated all of them. Synthesizing these factors into one study would provide a clearer picture of how they work in tandem to influence the effect of student absences on reading achievement.

### **Purpose Statement**

The purpose of this study is to examine how student parental structure and absence reason work alone or in concert to influence the extent to which excessive absences affect academic progress in reading. The combined effects of these variables

upon student achievement will provide insight into which students are most likely to fall behind academically after an accumulation of school absences. This study seeks to determine the impact of each individual variable on the learning of high absence students. Also of interest is whether an interaction exists between family structure and absence type.

### **Significance of the Study**

This study seeks to contribute to research related to the impact of student absences by determining exactly which types of students are at risk of suffering the most from excessive absences. By combining and examining two documented risk factors (family structure and absence reason) this study hopes to determine how these factors work alone or together to impact students learning. In so doing, this study should provide schools with a way of identifying which students are at greatest risk of falling behind when absences start to accumulate.

### **Research Questions**

- 1) Is there a statistically significant difference in cumulative reading achievement between high absence students and low absence students?
- 2) Is there a statistically significant difference between the cumulative reading achievement of high absence students based on their parental family structure?
- 3) Is there a statistically significant difference between the cumulative reading achievement of high absence students based on the proportion of their absences which are unexcused?
- 4) Is there a statistically significant difference between the cumulative reading achievement of high absence who exhibit two risk factors (non-nuclear

family and mostly unexcused absences) as compared to those who exhibit either one or no risk factors?

### **Research Hypotheses**

H<sub>0</sub>1 – There will be no statistically significant difference between the cumulative reading achievement of high absence students and low absence students.

H<sub>0</sub>2 – There will be no statistically significant difference between the cumulative reading achievement of high absence students based on their parental family structure.

H<sub>0</sub>3 – There will be no statistically significant difference between the cumulative reading achievement of high absence students based on the proportion of their absences which are unexcused.

H<sub>0</sub>4 – There will be no statistically significant difference between the cumulative reading achievement of high absence who exhibit two risk factors (non-nuclear family and mostly unexcused absences) as compared to those who exhibit either one or no risk factors.

### **Identification of Variables**

**Independent variable 1.** High absence students - This dichotomous variable includes all students who have been absent from the classroom 10 or more times during the academic year.

**Independent variable 2.** Student parental status – a nominal variable:

- nuclear family – student lives with both natural parents
- single parent – student lives with one natural parent only
- student lives with a natural parent and step-parent

- guardian - student lives with a guardian who is not their natural parent

**Independent variable 3.** Unexcused absences – This is an ordinal variable with the percentage of total absences which were unexcused grouped by 0 to 24%, 25 to 49%, 50 to 74%, and 75 to 100%.

**Dependent variable.** Student cumulative reading achievement – This is a continuous variable determined by each student’s score on the reading portion of the Georgia Criterion Referenced Competency Test (CRCT).

### **Assumptions and Limitations**

#### **Assumptions.**

- It is assumed that student CRCT scores are an accurate measure of student achievement.
- It is assumed student absences were recorded correctly.
- It is assumed each teacher administered the CRCT test in accordance with proper, uniform testing procedures.
- It is assumed students put forth their best effort on the CRCT.

#### **Limitations.**

- Differences may exist in teacher instructional practices.
- This study will only examine one middle school, so results will not necessarily be reflective of other schools.
- Causation cannot be determined from this study.
- Disruptions in family structure are often more disadvantageous to student achievement than the family structure itself (Strohschein, Roos, & Brownell, 2009). This study does not account for the effect of changes in

family structure resulting from divorce, remarriage, or the death of a parent.

- Title I status is determined by the number of students eligible for free or reduced lunch. This variable is based upon a form completed by parents and may or may not accurately reflected family SES status. It also does not take into account other SES attributes such as neighborhood characteristics, parental education, and parental occupation. Finally, older students are less likely than younger ones to complete an application for free or reduced lunch (Sirin, 2005), so there may be more students living in poverty than are accounted for in this study.

**Definitions.**

- Title I School: A school which has met federal guidelines for having a significant number of students who meet the criterion for being economically-disadvantaged. Typically, a school qualifies as a Title I school if 35 or 40 percent of its students qualify for free or reduced lunch. Title I schools receive federal funds for programs designed to offset the problems associated with being economically disadvantaged (O’Hanlon, 2009).
- No Child Left Behind Act of 2002: A federal law which required states receiving federal education money to put standards in place which would steadily increase student reading and mathematics standardized test scores up through the year 2014, at which time all public school students were to be performing on their grade level. This law is currently under review by

both state and federal education officials who believe a large proportion of public schools will be unable to meet the requirements of the law in future years.

- **Criterion-Referenced Competency Test:** This test, which is administered to all Georgia public school students in grades 1 through 8, is designed to measure the extent to which students have mastered Georgia Performance Standards (GPS). Students in grades 3, 5, and 8 must meet expectations on both the reading and math portions of this exam in order to be promoted to the next grade.
- **Georgia Performance Standards:** Also known as GPS, these standards include the skills and knowledge that each public school student in Georgia is required to learn in school. Middle school students are taught and tested on GPS standards in math, social studies, English/language arts, reading, and science (Georgia DOE, 2006).
- **Attendance:** This refers to the number of school days a child was present at school for at least half the school day. A child must arrive at school prior to 11:30 a.m. or remain at school until that time to be counted present for the day (Coweta County Board of Education, 2011).
- **Excused absence:** In order for a student's absence to be excused, they must be absent for one of several reasons. The reasons for which an absence may be excused are illness, medical or dental appointment, or a court appearance. A parent must provide documentation when the child

returns to school, explaining the reason for the absence (Coweta County Board of Education, 2011).

- Adequate Yearly Progress (AYP): This is a measure of accountability required by the No Child Left Behind (NCLB) Act of 2001. States are free to choose the measurement instrument that will be used to determine academic progress. In Georgia, the CRCT examination is used to determine whether student progress from year to year in grades 1 through 8 meets satisfactory requirements. Schools which make acceptable progress are deemed to have made “Adequate Yearly Progress”, or AYP for that year. Schools which don’t make acceptable progress face sanctions ranging from allowing students to transfer to other schools to possible restructuring and relocation of staff members (United States Department of Education, 2008).
- Full academic year (FAY): “Students enrolled continuously from the fall FTE count day through the end of the state testing window in the same school” (Georgia DOE, March, 2011, p. 3).
- Full time equivalent (FTE): “The number of students who are enrolled in each segment (or class)...divided by six (the number of daily segments” (Georgia School Boards Association, 2012, p. 13).

### **Research Plan**

This study will employ a quantitative causal comparative research design. This is the appropriate design because this study is attempting to determine whether the groups being studied differ on the dependent variable contingent upon the presence of one or two

independent variables (Gall, Gall, & Borg, 2007). Ex post facto research such as this uses data which already exists, in this case, standardized test scores, attendance rates, and student family structure. This study is non-experimental in nature and it is not designed or intended to show a cause and effect relationship.



## **CHAPTER 2: LITERATURE REVIEW**

### **Introduction**

The purpose of this study is to examine factors which influence the extent to which excessive student absences affect reading achievement. Research has shown many variables which influence student learning, and these taken together can create substantial obstacles to achievement (Chatterji, 2006). Since this study is designed to compare students in a Title I school whose progress is affected by high absence rates with those who are not, this chapter will provide an overview of the significance of student SES, parental status, and reasons for absence in high absence students in terms of their role in impacting student learning.

### **Theoretical Framework**

According to social learning theory, a skill is acquired when it is modeled and then replicated by a student (Bandura, 1977). Skills such as reading which are first introduced during a child's elementary years, are refined in middle grades classrooms by exposing students to a variety of literature genres and topics (Wiles, Bondi, & Wiles, 2006). While computers and other media are increasingly being utilized in middle school classrooms to model and reinforce reading skills, the teacher still plays a crucial role in the development of reading skills (Wiles, Bondi, & Wiles, 2006).

For middle school students, merely being present in a classroom is not sufficient (Bandura, 1977). Students must actively attend to the lesson and skills being modeled, they must retain what they have seen, and they must be capable of replicating the skills. Finally, students must have a motivation to repeat the skill they have seen modeled (Bandura, 1977).

Clearly, absences from school impact a student's ability to see and replicate a skill which has been taught. Reading at the middle school level is somewhat unique in that most students come to school with basic reading skills already in place, and the goal is to improve these skills. In contrast to other subject areas such as mathematics and science where a large part of the curriculum includes material the student may have never seen before, literature classes focus on improving and refining skills the student is already at least somewhat familiar with.

The last component of social learning theory, having the motivation to replicate a skill, can be quite important in reading development. A highly motivated student might read on their own and improve independently of the classroom. Conversely, students lacking motivation might not progress in spite of regular school attendance. Parents play a large role in the development of a student's motivation towards school. Values and expectations modeled at home will help shape the way a child perceives the importance of school and learning.

In this way, social learning theory may also be applied to the way parents pass on their values and expectations relative to schooling and education. The attitude a student's parents have toward truancy plays an important role in the extent to which truant behavior persists (Henry, 2007). Whether unexcused absences are tolerated by parents sends a message to the child about whether receiving an education is a valued part of the family (Sheldon, 2007). In the same way teachers model reading skills at school, parents model values and attitudes toward education which will influence the development of the child's own value system. The attitude a child develops toward school will play a pivotal role in how successful that child is in school.

Early adolescence is a critical period in the development of the values and attitudes a child will have towards school and education. Parents of children in this age range transmit values chiefly through establishing and maintaining standards as well as keeping lines of communication open (Hillaker, Brophy-Herb, Villarruel, & Haas, 2008). Though adolescents are becoming increasingly independent, parents who establish and maintain their standards have been shown to be highly successful.

While both parents model and instill values, the same gender parent plays an especially important role in modeling the values which will influence the extent to which children value their education (Lee & Kushner, 2008). For many children living with a single parent, this same gender influence is either absent or diminished and this might have an impact upon the way a child develops a worldview related to the value of learning. From the social learning perspective, it is possible that the presence of unexcused absences might be symptomatic of the values being modeled by the student's parent.

High rates of unexcused absences have been linked to "school disengagement" and lower academic achievement (Gottfried, 2009). Students with a high number of unexcused absences might be less motivated and supported at home than a student with an equal number of excused ones (Gottfried, 2009). Therefore the reasons for school absences are related to the extent to which students learn (Chang, & Romero, 2008; Finlay, 2006). A student who is absent for a legitimate reason but highly motivated to learn what they missed may be better off than the student whose attendance is regular but does not pay attention in class or has little incentive to learn (Jonasson, 2011).

When considered through the lens of social learning theory, it appears that

poverty, family structure, and reasons for school absences all have an impact upon a student's ability to acquire new academic skills at school. Motivation to learn often results from expectations placed upon children by their parents and society (Bandura, 1977). Some research suggests biological parents are often more attentive to and involved with their children than step-parents (De Vos, 2001; Cavanagh, Schiller, & Riegle-Crumb, 2006). Family structure can influence a child's desire to meet parental standards (Gottfried, 2009; Sheldon, 2007). The demands of poverty and the struggle to provide basic necessities might hinder the extent to which parents are able to help their child's academic progress (Chang & Romero, 2008).

Bandura's more recent research emphasizes the fact that improving student attendance and hopefully student achievement will require psychological change and a belief that such change will improve learning (Bandura, 2009). Modeling or teaching the importance of good attendance will not be sufficient if parents, students, and even teachers do not see the connection between regular attendance in school, academic achievement, and perhaps most importantly, the opportunities in life which result from having successfully completed one's education (Bandura, 2009). This study is designed to look for clues as to why poor attendance in and of itself appears to not be the only determinant of academic success. Bandura's work suggests there may be attitudinal or belief issues which need to be addressed before merely improving attendance rates will be fruitful.

### **Absenteeism**

Students may be absent from school for a variety of reasons. Understanding and distinguishing between the various reasons for absences becomes very important when

researching the impact they have upon student achievement. Many students who are excelling in school may be absent for legitimate reasons with little or no ill-effect upon their grades (Gottfried, 2009). Most research has focused primarily upon ‘truancy’, however, which is generally recognized as having a more deleterious effect on academic progress.

Truancy does not encompass all student absences. Henry (2007) considered truancy to include “full days each student skipped school without an excuse” (p. 30). Other researchers consider truancy to be any absence from school which would not be approved by educators (Wilson, Malcolm, Edward, & Davidson, 2005). Guare and Cooper (2003) contend truancy is any absence which would be condoned by neither parents nor school officials.

Absences which are typically considered ‘unexcused’ by local school boards begin to start increasing in frequency around the eighth grade (Railsback, 2004). Children entering middle school who were reported to be at least occasionally truant comprised 13% of all students. By the end of eighth grade, this number rose to 19% (Henry, 2007; Veenstra, Lindenberg, Tinga, & Ormel, 2011). For this reason, the middle school years are an especially important time in terms of whether a child will develop and maintain positive school habits.

Some research suggests parents often allow students to stay home from school for reasons which would not be legally permissible under state and local guidelines (Sheppard, 2010). Students who are middle and high school age are sometimes called upon to stay home and supervise younger siblings when they are sick or the parents have to work (Sparks, 2011). Sheppard (2010) discovered that many parents allow children to

stay home simply to have a day off. Sheppard also found that out of all student absences from school, truancy without parent permission actually comprised a small proportion.

**Suspensions from school.** Absences from school, such as suspensions for disciplinary reasons, though condoned by school officials, are not excused (Coweta County Board of Education Policy Manual, 2011). In spite of being counted as unexcused, these types of absences are not generally counted as truancy in research literature. Out of school suspensions comprise a unique attendance category with implications for student achievement.

While some contend suspending disruptive students is necessary for preserving the educational environment of all students, it may also serve to promote a detachment from school for the students who are asked to stay home (Christie, 2007). It can be difficult to determine whether suspensions cause disaffection with school or vice versa. In any event, the impact of academic time lost due to out of school suspension cannot be dismissed.

The use of out of school suspensions rises sharply in middle school (Arcia, 2006). To determine whether this is due to the nature of the middle grades student or the transition to a middle school environment, Arcia (2007) compared suspension rates of students attending K–8 schools with students who transitioned from elementary school to a Grade 6-8 middle school. Arcia discovered that seventh-grade students who attended a middle school were almost twice as likely to be suspended during the school year than those attending a K-8 school. Though previous disciplinary problems, minority status, and reading achievement scores also associated with suspension rates, sixth- and seventh-grade students attending a middle school were statistically more likely to be suspended

than those in a K-8 environment.

The relationship between out of school suspensions and academic achievement is well documented. Rausch and Skiba (2004) found that even when controlling for race, SES, and school demographics, out of school suspensions showed an inverse correlation with pass rates on Indiana's state competency tests. Another study revealed a steady decline in reading achievement scores as school suspensions began to accumulate (Arcia, 2006). Georgia currently ranks tenth in the nation for out of school suspensions (McGiboney, 2012).

One quandary when examining the impact of out of school suspensions is whether the behavior which led to the suspension is responsible for subsequent lags in achievement or whether it was the suspension itself. Also unclear is whether students who are already struggling in school and perhaps becoming disaffected might simply be more apt to engage in conduct which could lead to out of school suspension (Arcia, 2006). Indeed, Arcia asserts that the behaviors and work ethics which are often linked to positive academic outcomes are also those which are contrary to behaviors and habits often seen in students who are frequently suspended.

Finally, some disciplinary matters are dispensed with by assigning students to in-school suspension (ISS). This presents a unique problem for a study of student attendance because the student, though absent from the classroom, is typically considered to be present at school. When viewed in the context of social learning theory, however, the parents fulfilled their obligation to send the child to school which reveals a contrast in values to parents who allows their child to remain home for reason which would not warrant an excused absence. Furthermore, a child in ISS is still in the school

environment, presumably receiving some opportunity to engage in school work, or related activities. The child who is suspended out of school may or may not be involved in learning activities.

**Compulsory attendance.** School attendance is generally required of school-aged children in the United States. While parents may opt to home school their child or send them to a private school setting, laws passed in the second half of the 20<sup>th</sup> century require school attendance through high school for most students (Guare & Cooper, 2003). Compulsory attendance guidelines vary by state. All fifty states currently require school attendance for children between eight and 16 years of age, however some states require attendance for children as young as five and as old as 18 (National Center for Education Statistics [NCES], 2011). The importance of attendance was reiterated in the passage of the NCLB law which includes attendance as a standard by which many elementary and middle schools are measured (Russo, 2006).

Many people believe compulsory attendance laws are for the good of society and help ensure all students have an opportunity to receive a quality education. One study suggested that one-quarter of students who might have dropped out instead opt to remain in school as a result of these laws (National Bureau of Economic Statistics, 1990, as cited by Christie, 2007). Eaton, Brener, and Kann (2008) found that absences from school, for whatever reason, are linked to a host of deleterious issues including substance abuse, sexual experimentation, and lower motivation. While it cannot be determined whether students who might be predisposed to such activity are more apt to skip school (or vice versa), society has a clear interest in keeping young people in an environment where such things are less likely to occur.



Not everyone agrees with the premise or promises behind compulsory attendance laws. Russo (2006) cites concerns about whether such laws impede on parental rights to oversee the education of their children. While one court case in Wisconsin upheld the right of Amish families to cease sending their children to school after the eighth grade, most court cases related to compulsory attendance have upheld the right of the states to require students to attend school until a set age, usually 16 or 17. Research has shown little relationship between the ages at which students are required to attend school and either drop-out rates or the rate of graduation (Landis & Reschly, 2010).

Along with the requirement for students to attend class there may need to be structural changes and policy changes in schools. It appears the reasons for truancy have changed over the last few decades while the basic approach taken by schools has remained the same Wilkins (2008). Reid (2008) found that students skip school for three main reasons; a dislike of school, family issues, or emotional problems. The proportion of students skipping due to a dislike of school appears to be on the increase. Frequently truant students cited rules which were unfairly enforced and a distant relationship between teacher and student as being major sources of discontent (Wilkins, 2008). Concerns about school attendance prompted the federal government to become involved and pass the NCLB law, which has had a greater impact upon American education than any legislation in recent memory.

**The No Child Left Behind Law.** In 2002, Congress passed a landmark piece of legislation called the No Child Left Behind Law. Perhaps no modern piece of legislation has had a greater impact on education in America than this one. Under this law, students in Grades 3 through 8 are expected to make steady progress in reading and math

achievement, with the goal of seeing all students achieving on grade level by the year 2014 (Mathis, 2006). Increasingly strict sanctions are imposed for schools who fail to meet standards, with the possibility of a school restructuring for those who fail to meet adequate yearly progress over multiple years.

A key provision of this law requires elementary and middle schools to be evaluated by a number of indicators of school effectiveness. Student attendance is one benchmark by which schools are assessed in terms of making adequate yearly progress (AYP) (Railsback, 2004). Though no distinction is made as to whether the absences are excused or unexcused, this law makes reducing frivolous absences imperative for schools affected by this provision.

Mathis (2006) is a strong critic of many assumptions upon which the NCLB law rests. Poverty may account for as much as half of the variation in standardized test scores between schools. This means schools serving lower SES areas are more likely to be labeled as 'needs improvement' than those in wealthier areas. The NCLB law was passed without adequate funding which is another area of concern (Mathis, 2006). The very constitutionality of this law has been brought into question, as some believe it may conflict with the Tenth Amendment to the Constitution which affords to the states all powers not specifically granted to the federal government (Mathis, 2006). Finally, and perhaps most unsettling, is the fact that scarce evidence exists that the sanctions imposed on schools who fail to make AYP over multiple years has resulted in increased student achievement (Forte, 2010).

In terms of how AYP is achieved, schools must meet a number of benchmark standards each year called 'indicators'. Each subgroup in the school must meet minimum

standards in each area being assessed (Forte, 2010). Individual states determine the number of students needed for a school to have a subgroup, but Forte (2010) points out that subgroup numbers increase the difficulty of meeting AYP standards very quickly. A school, for instance, with no subgroups must meet a minimum of five indicators, whereas a school with four subgroups must meet 17. There are actually some schools and districts who must meet minimum standards for nine student groups in two content areas, two other indicators, and high school graduation rates. This results in a total of 37 indicators which must all be met if a school or district wishes to make AYP (Forte, 2010). This is special concern for districts which are large and include a diverse student population.

One indicator used by many elementary and middle schools is student attendance rates. In order to satisfy this provision, a school must have no more than 15% of students absent for 15 days or more, regardless of the reason (Myles, 2010). This applies to each subgroup in the school, which means school leaders must be diligent in making sure absences do not begin to accumulate within a subgroup of students.

The No Child Left Behind law is currently in a period of review and revision. As the target year of 2014 has drawn closer, it has become increasingly clear that many, many schools were going to be unable to meet achievement standards in every subgroup area, as required by this law. In early 2012, 10 states requested and received waivers from the U. S. Department of Education (Badertscher, 2012). These waivers allowed states to substitute standards and accountability measures of their own in place of those required by NCLB. One thing is clear, however, the impact of NCLB is a lasting one, as student achievement and the importance of school attendance will continue to be a central part of school accountability programs nationwide.

**Reducing truancy and frivolous absences.** In addition to NCLB provisions, the state of Georgia has an attendance law which provides stiff fines and penalties for parents who do not compel their children to attend school regularly (Georgia Compulsory Attendance Law, O.C.G.A. 20-2-690.1, 2007). School attendance in Georgia is required for students between the ages of 6 and 16. Parents whose students accumulate as few as five unexcused absences during a school year face fines or even jail time, though this law thus far, has rarely been enforced.

The Coweta County Board of Education has gone one step further, by allowing for truancy charges to be filed after a child accumulates 12 or more absences, regardless of reason, unless the child has a doctor's excuse (Coweta County Board of Education Policy Manual, 2011). While relatively few parents have actually been charged, these sanctions loom over parents who do a consistently poor job of sending their children to school. Despite the legal requirement for school attendance in Georgia, educators must still find ways to reduce truancy.

While most student absences from school are for legitimate issues such as illness, a substantial number of students report staying home from school for reasons which would not be condoned by school officials. One study found that 10% of 8<sup>th</sup> grade students reported they had skipped school in the previous four week period (Henry, 2007). Among those who were most likely to have skipped school were students who reported living with a single parent, had failing grades, did not attend religious services, did not believe they would graduate high school, and those who worked a job outside school. Perhaps the largest indicator of which 8<sup>th</sup> graders skipped school were the number of students who skipped school who reported smoking (36%), drinking alcohol

until intoxicated (37%), and smoking marijuana (36%) (Henry, 2007, p. 33). School officials wishing to reduce truancy must first recognize students exhibiting these risk factors.

Incidences of skipping school begin to increase during the middle school years (Railsback, 2004; Henry, 2007). Because of this, Chang and Romero (2008) contend addressing this problem early on is critical if schools are to be successful. Frequent absences as early as kindergarten can portend academic challenges in later years so it is beneficial to address these problems early on.

Attendance problems sometimes arise out of family issues such as a lack of understanding about the importance of regular attendance (Chang & Romero, 2008). For this reason it is important that school officials do a good job communicating with parents about the importance of school attendance and potential consequences which accompany excessive absences (Chang & Romero, 2008). This is particularly true of schools serving students in poverty, as parents struggling with poverty might be less apt to initiate dialogue with school officials relative to their child's attendance issues (Dahl & Lochner, 2005).

Poverty indirectly contributes to poor attendance (Claes, 2009). This can exacerbate the effect that poverty itself has upon a child's likelihood of success. Claes found that schools can offset the influence of poverty on truancy by way of positive parent-school communication and an open, positive school climate. A poor school climate can lead to school disengagement.

School disengagement and a perception of not being successful are also powerful predictors of truant behavior. Students with high rates of absences are more likely to

report being unhappy with school than those whose attendance is average or good (Sheppard, 2009). Also, parents who were unable or unwilling to help with homework had children who were more apt to be disengaged from school. Research does suggest that schools have the capacity to have an influence on student attendance patterns (Henry, 2007). The most effective remedies to attendance problems appear to be based upon a comprehensive approach by school officials in cooperation with parents (Guare & Cooper, 2003, Railsback, 2004, Sheppard, 2010).

In a review of literature related to effective truancy intervention programs, Sutphen, Ford, and Flaherty (2010) found that developing a working definition of truancy was a key first step in the development of a plan to address it. At the high school level they found success with such interventions as token economies and other rewards systems, behavioral contracts, group counseling, and parental notification. Admittedly, however, more research needs to be done related to how these interventions might work with students at other grade levels.

Parental notification is a key component in many effective truancy intervention programs. Since distrust and misunderstanding can often arise out of inadequate lines of communication, a system designed to promote strong, continuous communication between school staff and parents is crucial (Sheldon & Epstein, 2004; Chang & Romero, 2008). Schools that are ineffective at reducing truancy and those which are highly effective are often just as apt to call the parents of truant children. This is because communication must be regular, positive, and ongoing if it is to have an impact, and this is typically seen in schools which are successful in reducing truant behavior (Sheldon & Epstein, 2004).

Regular communication is crucial for student academic success as well. In schools which are demographically similar, the ones which are considered successful in terms of student achievement are those in which teachers perceive there to be a positive, open relationship in which communication with parents occurs frequently (McCoach, et al., 2010). Interestingly, parents in the low achieving schools had the same perception of the quality of teacher-parent communications as those in high achieving schools. The difference lay in how the *teachers* perceived it. This lends strong evidence to the idea that school officials should strive to build and maintain positive, regular lines of communication with parents.

One comprehensive truancy-reduction program was implemented in Aurora, Colorado. Truancy prevention specialists were hired, and home visits were made to students with a history of unexcused absences (NCES, 2009b). Other programs such as Saturday school, counseling, volunteer mentorships, and parent support groups were put in place as well. As a result, 78% of schools in Aurora saw a reduction in the rates of truancy (NCES, 2009b, p. 19). The two lessons derived from the Aurora program are that truancy prevention requires a multi-faceted approach and no truancy prevention program will eradicate all truant behavior.

One final consideration related to the reduction of frivolous absences is the health related issues which result in excusable absences from school. Access to quality health care varies from state to state and from family to family, and this does have an impact upon student attendance. In Georgia, for instance, 27% of middle school students are obese and 10% of all students suffer from asthmas (McGiboney, 2012, slide 24). The State of Georgia has found that dental health matters make up the largest portion of

medically-excused absences from school. While truancy is a sizable factor in school attendance in Georgia, a good many students are also missing school due to health related matters.

### **Poverty and Its Effect on Achievement**

The setting for this proposed study is a Title I school where approximately six out of every 10 students is considered economically disadvantaged (ED). While not meeting the federal government's standard of a 'high poverty school', one in which at least 75% of students are ED (NCES, 2011), this school still has a substantial number of students struggling with poverty. Statewide, approximately 42% of Georgia students are eligible for free or reduced lunch, which is higher than the Southeast average of 39% and well above the national average of 35% (p. 231).

Students who are considered ED, as determined by their eligibility for free or reduced lunch, often do not perform at the same academic levels as students who are not ED. Poverty, in fact, is a strikingly powerful indicator of academic success or failure (Chatterji, 2006). Many studies have documented the reasons and the extent to which poverty relates to school achievement. The results, however, are sometimes conflicting.

In one of the largest contemporary meta-analyses related to SES and achievement, Sirin (2005) compared data from 102 studies which covered a variety of components related to SES and their relationship to student achievement. As Sirin pointed out, there are many variables which can be used to examine SES, including neighborhood characteristics, parent education and occupation, and family income. Similar associations between SES and achievement were discovered with all the variables examined, however. The differences lay in the strength of the associations.



Twenty-four of the studies in Sirin's meta-analysis examined either family income or eligibility for free or reduced lunch. Among those studies there was an average effect size of .31, which the author considered a medium effect. This effect size was at the student level.

When examined at the school level, however, the effect size between SES and achievement approaches .60, and some believe it is even higher (McCoach, et al., 2010). As Sirin (2005) pointed out, family SES also influences a host of other factors such as the quality of the neighborhood school, available resources, and cultural capital which all add up to play a substantial role in a child's chances for success. Sirin also noted that the effect of SES increases each year, peaking when the child reaches middle school. The effect of SES on achievement at the high school level was comparable to that which existed among elementary students.

While poverty has been linked to achievement gaps in many subject areas, the relationship between poverty and reading achievement disparities is especially pronounced. Dahl and Lochner (2005) determined that each \$1000 increase in annual family income corresponded to a rise in reading test scores of 3.6 percent of a standard deviation. The reasons for which poverty has a negative effect upon learning include parental stress, poor health, lack of money to buy books, and lack of access to computers and other supplies (Dahl & Lochner, 2005). The gap in reading achievement appears to actually widen over the summer. This may be due to the fact children from higher SES homes are more likely to have access to reading materials when school is not in session (Ready, 2010).

Chatterji (2006) found that when children first enter kindergarten, poverty is a bigger indicator of reading achievement than even ethnicity or gender. These gaps in reading ability will only widen when the children reach middle and high school (Chatterji, 2006). Students whose SES status is in the lowest 20% score significantly below the average in reading all through the elementary years (NCES, 2011).

Poverty appears to play a greater role in student achievement among elementary-age students than it does with middle school students (Burnett & Farkas, 2009). Researchers have hypothesized this may be due to the need among very young children for exposure to cognitive stimulation which may be more difficult to access by parents lacking economic resources. Additionally, by the time children reach middle school, ability level placement is often set and less likely to change. For this reason, children in poverty often find themselves stuck in lower level math and reading courses, with little likelihood of moving up (Burnett & Farkas, 2009).

Poverty is also a greater predictor of achievement among White students than it is among minority students (Sirin, 2005). Sirin found that the more minority students there were in a given sample, the less predictive SES was of academic achievement. This was particularly true at the student level, but less so at the school level. The implication was that minority students were more apt than their White counterparts to attend schools which exhibited a host of other risk factors, thus mitigating the effects of family SES on student progress.

In summary, SES does associate with student achievement because it influences many other factors which play a significant role in a child's chances for academic success. Children from higher SES homes have more access to resources at home, are

more likely to attend schools with experienced teachers and lower student-teacher ratios, and are more likely to have parents who are actively involved in their education (Sirin, 2005). Family SES is a complex phenomenon, however, involving and interplay between a host of variables.

**Title I.** The United States federal government has taken steps to assist public schools who serve large numbers of students identified as living in poverty. “Title I” refers to a section of a federal law which was originally passed in 1965 and which is now been incorporated into the No Child Left Behind (NCLB) education law. Schools with a substantial number of students living in poverty can become eligible for extra federal government funding which can be used to provide additional assistance to students who are struggling (O’Hanlon, 2009).

The most common way schools identify which students are in poverty is by examining eligibility for free or reduced lunch. Typically if 40% of a school student population receives free or reduced lunch, a school may be able to apply for Title I status. Schools are given some latitude on how Title I money is spent, but it must be used with the primary goal of aiding the students who are in poverty (O’Hanlon, 2009).

Students in a Title I school are statistically more likely to struggle than their counterparts in more affluent settings. This is due in large measure to resource inequities which exist between Title I and non-Title I schools. Compared to Title I schools, those which are not Title I have less teacher turnover, newer facilities, and more instructional space (Jimenez-Castellanos, 2010).

Moreover, non-Title I schools are often able to attract better teachers, and the impact of good teachers on school performance is very important. Non-Title I schools,

on average, have more experienced teachers than Title I schools. While experience in and of itself does not always associate with student achievement, veteran teachers do typically have more resources and time to devote to instructional planning (Jimenez-Castellanos, 2008). This creates more *opportunities* for success in the classroom than is often seen with beginning teachers who are struggling to survive.

Given the impact of poverty on the family, community, and school level, excessive absences can take on an even greater role in influencing a child's prospects for academic success. It is in the context of a Title I school setting that the key variables of family structure and absence reasons are examined in more detail.

### **Family Structure and Achievement**

A student's parental family structure appears to be linked to academic progress, especially as a child enters the middle school years (Hines, 2007). Research has shown that each year a child lives with a single parent, a guardian, or a parent who is cohabiting will result in a lower average GPA relative to students living with two married, biological parents (Heard, 2007). American family structures are changing. Parents are trending toward fewer children and there is a greater likelihood of children living with non-biological adults in the home than existed a few decades ago (Sirin, 2005).

While some studies have shown either marginal or no association between family structure and achievement (Fomby & Cherlin, 2007; Burnett & Farkas, 2009) the preponderance of studies suggest such a link does exist. It is possible that achievement differences result from issues related to family structure (income, family transitions, support, etc.) rather than the parental arrangement itself. An examination family structure together with absence type and in the context of a Title I school can provide clues to the

dynamics which work together to impact student learning. This is especially important considering the rapidly changing makeup of American families.

In the last twenty years, there has been a sharp increase in the number of children residing in single parent households (Lee & Kushner, 2008). The number of children living in single parent homes has jumped from 12% in 1970 to over 30% in 2010 (U. S. Census Bureau, 2010). Of students living with a single parent, approximately 80% live with their mother and 20% live with their father (NCES, 2009a). Approximately 23% of White children, 32% of Hispanic children, and 60% of African American children reside with a single parent (NCES, 2009a).

The percentage of children living with both biological parents has dropped to only 42% (U. S. Census Bureau, 2010). Nationally, a little over 70% of children live in a household with either step- or biological parents (NCES, 2009a). There has been a steady decline in the number of children living with two parents since 1970. There has also been an increase in the number of children living with non-married, cohabiting adults.

**Students living with both biological parents.** Many studies have shown that students living with both their biological parents fare better academically than students in homes with other parental structures (Ham, 2004; Gennetian, 2005; Hines, 2007). High school seniors residing in intact households had cumulative GPA's which were 17% higher than students from other family structures (Ham, 2004, p. 173). Ham also discovered that students from non-intact family structures were absent from school at a rate 78% higher than those from intact families.

While the academic advantage for students from nuclear families holds true in other countries and cultures, this phenomenon seems to be more pronounced in the United States (Pong, Dronkers, & Hampden-Thompson, 2003). This may be in part due to the fact many other countries have government-subsidized welfare programs which are more generous than those in the United States and tend to offset the effects of living in a single-parent household. Pong, et al. found that living in a country with substantial benefits and subsidies reduced the gaps in achievement which exist between children living in single and two-parent households.

There have been many theories posited as to why students living with their biological parents often outperform those with other family structures. Socioeconomic status is one obvious factor, as two parents often have a higher income than a single parent. This does not account, however, for the disparity seen between students living with a step parent and those with two biological parents. One research study used a social capital theory to try to explain this.

Shriner, Mullis, and Shriner (2010) conducted a long-term study of children residing in various family structures to try to understand why achievement differences existed between them. They believe social capital theory, which explains the mechanisms and tools parents use to provide children access to their knowledge and resources, can account for many of these differences. The authors found that overall, social and resource capital accounted for 13% of the variation in reading achievement from Kindergarten to Grade 5, but 34% of the variation in children living with a step-parent (p. 459). This suggest that, although family income might be similar in nuclear and step-parent households, children living with step-parents are sometimes not as able to

acquire access to the social capital and resources (knowledge, computer access, guidance, etc.) as children residing with biological parents.

Interestingly, students who were adopted at birth (whom, for the purpose of this study are considered to be living with both biological parents) often achieve greater academic success than students who live with both their birth parents (Strohschein, Roos, & Brownell, 2009). This is largely due to the tendency of parents who adopt to have greater economic resources. Regardless of whether a child is adopted or biological, however, marital dissolution and the adjustment which accompanies remarriage appear to have a substantial impact upon a child's chances for success in school.

A recent study found that only 51% of American adults are married, reflecting a steady, downward trend over the last few decades (Pew Research Center, 2011). Since 1960 the percentage of adults who have never married has almost doubled. Americans are also waiting until they are much older than they used to before getting married for the first time. Children are more likely now than ever before to live in a family either with a single adult or with adults to whom they are not biologically related.

**Students living with single parents.** Children living in a single parent home typically underperform their peers from two parent homes in terms of academic achievement. Shaff, Wolfinger, Kowaleski-Jones, and Smith (2008) found that students whose parent either never married or divorced when the child was very young and then remained single were at a significant disadvantage relative to students whose parents were married the whole time. This study confirmed that while the lower SES which accompanies single parent status was a large factor in these results, SES alone did not account for all of the achievement differences which were observed. The remaining

differences appeared to be related to the amount of support and encouragement the children received. This implies that the deleterious effects of a disruption in family structure can sometimes be offset through a supportive home environment (Gennetian, 2005). Too often, however, single parents find themselves too overwhelmed or busy to provide this level of support.

Living in a single parent home has been linked to statistically significant differences in reading achievement compared to living with two parents. Marks (2006) discovered that students living with a single parent scored, on average, one-half a standard deviation lower in reading achievement than those living with intact families. It has been suggested this may be due to the increased availability of resources and support in two-parent households (Chin & Chu Ho, 2006).

Interestingly, such differences were more pronounced in the U. S. than in any other Western country. One study conducted in Hong Kong found no statistical difference in the achievement of students living with a single parent or a blended family (Chiu & Chu Ho, 2006). The authors concluded that the detrimental effects of living with a single parent could be offset by heavy parental involvement and an extended community support system, both of which are often lacking in American single-parent households. Another more comprehensive study found that the differences in reading achievement between students from two-parent homes and those living with single-parents was greater in the United States than in other Western industrialized nations, though students in single-parent homes tended score lower in most countries (Hampden-Thompson, 2009). Finally, research has shown that the extent to which family structure influences reading achievement is moderated by cultural and socioeconomic factors, thus



partially explaining the differences which exist for American children from single parent homes relative to their peers in other countries (Chiu & McBride-Chang, 2010).

While most single parent households are currently led by mothers, there are an increasing number of single fathers raising their children and research is just beginning to provide insight into the implications these family structures have for student achievement. The extent to which single parent gender matters is influenced by the gender of the student. Lee and Kushner (2008) found no academic advantage for student living with a same gender parent, but there was a slight advantage for girls living with an opposite gender parent (father). Other studies, however, have found no significant advantage for students living with either a single mother or a single father (Lee, Kushner, & Cho, 2007). Battle and Coates (2004) acknowledge a slight academic advantage for students living with a father but surmised it was not due to the gender differences but rather to the fact that single fathers tend to make more money than single mothers and socioeconomic status is a huge variable in a child's academic success.

Durfur, Howell, Downey, Ainsworth, and Lapray (2010) found slight differences in achievement depending on the gender of a single parent, but concluded that these disparities were attributable to either the absence of a second parent or cultural influences. In this study, the authors also found that single fathers had an average income almost double that of single mothers, which could also account for achievement differences. Finally, Durfur, et al. discovered that single parents of both genders were more likely to exhibit tendencies and traits seen in the opposite gender parent in a two-parent household. Though fundamental parenting differences between mothers and

fathers are not completely erased, single parents adapt and try to meet needs which are traditionally met by the opposite gender parent.

Many single parents get remarried or opt to begin cohabiting with a partner. No such life transition occurs in a vacuum, as child-development is a direct function of the “developmental trajectories” of their parents (Cavanagh, Schiller, & Riegle-Crumb, 2006, p. 329). While the economic impact of having another working adult in the home can have obvious benefits, remarriage and cohabitation does not automatically benefit the academic progress of children in the home.

**Students living with step-parents.** Stepfamilies are the fastest growing family structure in the United States (Tillman, 2007). This is even truer if one takes into account the number of families in which adult partners is cohabiting. Often even more important than the structure of the family itself is the nature of upheaval and separations which may have occurred previous to the formation of a stepfamily.

Some studies have found a disparity in academic achievement among children living with a natural parent and step-parent as compared to students living with both their biological parents (Tillman, 2007; Wojtkiewicz & Holtzman, 2011). In addition to the aforementioned resource and social capital theory, a number of explanations have been put forth to understand why these differences exist.

Gennetian (2005) suggests this might be due to either the disruptive nature of acclimating to a new step-parent, or conflicting levels of allegiance and trust. A parent who remarries following a stressful divorce or separation risks exposing their child to further “negative social and psychological outcomes” (Tillman, 2007, p. 386). As Tillman points out, the appropriate role a step-parent should play (especially in terms of

discipline and authority) are not always clear and this can often become a sources of conflict in a blended family.

Another factor could be that relationship which exists between a step-parent and child may not be as strong as might exist between a child and their biological parent. Research shows that mother-figures are most important for the healthy development of young children, but the father-child relationship is especially important for positive adolescent development (Bachman, Coley, & Chase-Landsdale, 2009). For this reason, a young child with a new step-mother or a teenager living with a new step-father often find the adjustment to be quite challenging (Heard, 2007).

Some children live with a biological parent who is cohabiting with a partner without being married. Bachman, Coley, & Chase-Landsdale (2009) found that adolescents living in stable cohabiting families fared worse in terms of academic achievement than students who lived in a family with a stable marriage. This was true even if the marriage consisted of a biological parent and step-parent. The authors speculated this may be a result of the increased likelihood of financial instability and family discord which are more prevalent in cohabitation setting than in stable marriages (Bachman, Coley, & Chase-Landsdale, 2009). It also could be due to the lack of a sense of permanency which exists in a cohabitation environment.

Tillman (2007) likewise found an academic disadvantage for adolescents living in with cohabiting parents when compared to those living with step parents. Tillman found, however, what many other researchers have also discovered, that the pathway or events which led to a child's current family structure often plays a large role in their prospects

for academic success. Overall, research suggests family stability is a stronger indicator of academic success than family structure itself (Strohschein, Roos, & Brownell, 2009).

**Living with a guardian or in foster care.** Many students live in a household with adults who are not their biological parents. Some students live with grandparents or some other blood relative, while others are in foster care or group homes. A great deal of research has been done with respect to the academic achievement of students living in circumstances such as these.

Nationwide, there are approximately 500,000 school-aged children living in foster homes (Williams, 2011, p. 60). As many as 7% of all children will have an encounter with child protective services at some point prior to turning 18 years of age (Leve, Fisher, & Chamberlain, 2009). It is not uncommon for children in foster care to move around and experience frequent changes in their placement (Chambers & Palmer, 2011). These changes often involve enrolling in new schools as well.

Studies have shown that children in foster care underperform their peers in terms of academic achievement (Scherr, 2007; McClung & Gayle, 2010). It is sometimes difficult to determine whether these learning setbacks are a result of the *reason* for placement in a foster home, or the environmental factors associated with such placement (Williams, 2011). Both of these factors must be taken into account when examining why some children succeed while others do not.

The primary reasons for placement in American foster homes is parental neglect or some form of physical, emotional, or sexual abuse (Leve, Fisher, & Chamberlain, 2009). These issues alone can account for academic problems, but the disruption brought about by being removed from one's home and placed with strangers can compound their

effect. McClung and Gayle (2010) cite these placement disruptions along with a number of factors as contributing to the academic struggles faced by children in foster homes. Chief among these factors are lack of support from parents and teachers along with lack of access to support structures for dealing with mental, emotional, and social struggles which often accompany the uncertainty of living in foster care.

One meta-analysis of studies related to the achievement of children in foster care found that they were much more likely to be placed in special education, equally likely as their peers to be retained, and more likely than other students to be suspended from school (Scherr, 2007). Scherr points out that emotional and behavior issues are to be expected from children who have endured abuse or neglect in their homes and then find themselves placed with strangers. Many schools, however, are ill-prepared to provide the counseling services these children need in order to adjust and be successful in school.

In some instances, however, long term, stable placement in foster care can actually mitigate the damage wrought by the abuse which placed the child there (Pecora, et al., 2006). A long-term, comprehensive study of adults who had grown up in foster care found that placement stability, access to life skills training, and involvement in extracurricular activities were all associated with a greater likelihood of graduating high school. One key issue which arises in many studies is the tremendous impact a disruption in one's home situation can have on academic achievement.

**Family disruption and remarriage.** Family disruption has a substantial adverse affect upon student achievement. Students in stable, non-disrupted, two-parent households fared better on reading performance than those who lived in disrupted households (Sun & Li, 2011). Children whose parents divorced were 61% less likely to

graduate high school than children whose family structure did not change (Strohschein, Roos, & Brownell, 2009, p. 94). The effect of parental divorce on the likelihood of graduating high school was actually just as significant as suffering the death of a parent (Strohschein, Roos, & Brownell, 2009).

Heard (2007) found significant detrimental effects for children of both genders when they experienced a change in family structure resulting in a change in the mother-figure. When factoring in the age of the child when the divorce occurs, researchers discovered that divorce had a more pronounced effect on younger children than adolescents (Hill, Yeung, & Duncan, 2001). It was also more pronounced when a family change involved the mother rather than the father. Heard speculated this was due to the fact that mothers typically invest more time in the lives of very young children than fathers do. The researchers speculated this may be due to younger children having less experience dealing with the emotional impact of loss and disruption. Overall, family instability appears linked to lower student achievement than long term family structure of any sort (Cavanagh, Schiller, & Riegle-Crumb 2006).

The reasons for the impact of family disruption on student achievement obviously stem from the emotional and contextual affect it has on a child's life, though the loss of a parent in a child's day-to-day life accounts for a greater share of the academic impact than the overall disruption wrought by divorce (Strohschein, Roos, & Brownell, 2009). Experiencing the divorce of one's natural parents has a profound impact upon a child's psychological well-being, and this more than accounts for subsequent differences in academic achievement which are often reported (Potter, 2010). While it is possible that the decline academic performance actually comes first and accounts for diminished

psychosocial well-being, it is clear that the divorce process is ultimately responsible for many detrimental effects in the lives of young children (Potter, 2010).

Remarriage, while often resulting in an increase in family income and support for the child, typically does not offset the harmful effects of experiencing the divorce process (Bachman, Coley, & Chase-Landsdale, 2009). In fact, in terms of school attachment and drop-out rates, children living with step-parents more closely resembled those living with single parents than children in nuclear families (Bachman, Coley, & Chase-Landsdale, 2009). Wagmiller, Gershoff, Veliz, and Clements (2010) found that students in a single parent home who were struggling the most in school were the least likely to benefit from the remarriage of their parent. The researchers posit the stress of adapting to a new family structure might supersede the benefits of an increase in family SES, which typically accompanies remarriage.

Brown (2006) revealed that children moving into a cohabitation structure experienced a greater decline in school engagement than those moving into a married step-parent situation. Interestingly, however, a decision by cohabiting step-parents to get married did not result in a corresponding increase in school engagement. While the long term stability of the adult relationship was a key variable, adolescents residing with cohabiting adults appeared to be less engaged in school than peers living in any other family structure.

Similarly, Shaff, et al. (2008) and Heard (2007) found that parental remarriage had no short-term effect on student achievement one way or another. In another study, Bachman, Coley, and Chase-Landsdale (2009) discovered that adolescents from low income homes did not benefit when their single parents got married. The benefits

associated with having stably married parents only appear to manifest themselves over an extended period of time. Heard summed up these findings by asserting “parent presence matters a great deal but family stability matters even more.” (p. 448).

Finally, Tillman (2007) found no short term ill-effects in academic achievement for adolescents who suffered the death of a parent. This was not true of youth who experienced the divorce or separation of their parents. Tillman stresses the *combination* of a divorce and the stress of adjusting to a step parent appear to have a profound impact upon student achievement and emotional well being.

All family transitions are subject to influence by cultural and societal factors. Strong relationships with family members and frequency of church attendance are both associated with a lessened impact of family transitions (Fomby, Mollborn, and Sennott, 2010). African American and Hispanic youth appear to have greater access to these social protection variables than White youth do.

**Family structure and parental support.** A relationship also exists between absence types and parental support and engagement. A higher proportion of excused absences suggests a more positive relationship between parents and school (Sheldon, 2007). Parents of students with a large number of unexcused absences may not be as involved in their child’s education (Jeynes, 2005; Gottfried, 2009). Unexcused absences are sometimes even condoned by parents (Reid, 2008). Parents of children with many unexcused absences believe there is a lack of communication and trust between them and the schools (Davies & Lee, 2006).

It bears mention that parental school involvement has been linked in many studies to student achievement. Lee, Kushner, and Cho (2007) found no significant difference in



the achievement levels of students in single parent households based upon whether their parent was highly involved in their education. Wu and Qi (2006) speculate this may be due to the fact that frequent involvement in school matters sometimes arises out of academic or behavior problems. Wei (2008) found that middle school students living in two-parent households received significantly more monitoring, guidance, and involvement than those living with a single parent.

The preponderance of research, though, suggests a positive relationship between parental involvement and student achievement regardless of the family structure (Hill & Tyson, 2009). One meta-analysis study found a particularly strong relationship between what the researchers called “academic socialization” and student achievement (Hill & Tyson, 2009, p. 756). Academic socialization includes expectations which are established by parents relative to their child’s school progress.

While not all types of school involvement were found to associate with higher student achievement in middle grades, these researchers did find that parents who valued school, established clear goals for their children, and provided help and support for them had children with significantly higher grades than the children of parents who did not display these tendencies (Hill & Tyson, 2009). For this reason, parental family structure alone does is not sufficient for understanding how absences impact student achievement. The reason for absences (excused or unexcused) is a telling indicator of parental expectations (Sheldon, 2007; Gottfried, 2009). In short, parents with strong academic socialization predispositions do not tolerate large numbers of unexcused absences, so the proportion of absences a child has which are unexcused can reveal clues about values and expectations which are being established at home.

## **Family Structure and Student Absences**

Research has shown a relationship between family structure and the number and type of absences a child accumulates. Henry (2007) discovered that 8<sup>th</sup> graders who had recently been absent for unexcused reasons were statistically more likely to live with a single parent than either two parents or a guardian. While the number of 8<sup>th</sup> grade truant students living with a guardian (someone other than a parent) was very small, so was the sample size for this study. Among 10<sup>th</sup> grade students who were recently truant, those living with a guardian comprised a substantially larger proportion than students in other living situations. In fact, tenth grade students living with a guardian were more than twice as likely to have reported an incidence of recent truancy than those living either with a single father or both parents. Children living in households headed by a step-parent have also been shown to be statistically less likely to attend school than those living in home headed by biological parent (De Vos, 2001). Wei (2008) found that absences (both excused and unexcused) throughout middle school occurred more frequently in students living with single-parents than those in two-parent environments.

One oft-cited reason for this connection between family structure and school attendance is the level of parental involvement in school. There is a relatively strong correlation between parental involvement and the likelihood a child will attend classes regularly (Claes, Hooghe, & Reeskens, 2009). This can be problematic for single parents since they often have less discretionary time available to devote to school activities. Students living in two-parent households reported their parents to be more socially involved in their lives than children living with a single parent (Hampden-Thompson, 2009).

In one study, eighth grade students who reported skipping school frequently were far more likely to live with a single parent (Henry, 2007) than any other family structure. Such students are more likely to be living in poverty as well (Hampden-Thompson, 2009). Of those students living with a single-parent, 8<sup>th</sup> and 10<sup>th</sup> grade students living with a father were more likely to be truant than those living with a mother. This may be due to the fact that mothers tend to be more involved in school matters than fathers (Durfur, et al., 2010). Schools wishing to reduce excessive student absences need to be mindful of the challenges often faced by single parents and their children, and they must structure school involvement activities accordingly.

Regardless of family structure, however, students who do not show evidence of strong social bonds with either a parent figure or teacher are statistically more likely to develop patterns of truancy (Veenstra, Lindenberg, Tinga, & Ormel, 2011). Consistent with this is a finding by Hampden-Thompson (2009) that children in two-parent households had “higher levels of social and cultural involvement with their parents” (p. 525) when compared to children living with single parents. Bachman, Coley, and Chase-Lansdale (2009) similarly found that children with married parents had closer social ties to them than children whose parents were cohabiting. This could help explain the lower rates of truancy among children whose parents are married compared with other family structures.

Heard (2007) found that stability in a parental relationship was nearly as important for the healthy development of a child’s study habits and socialization as the type of relationship itself. There was a marked difference in attainment for children living with a natural parent and step-parent as compared to children living with a natural

parent who was cohabiting. Heard surmised this was due to the fact that the absence of a long term commitment had an unfavorable impact on the child's social development. The most significant harmful transition effects Heard found resulted from the introduction of a new male adult into a household to cohabit with no marriage commitment. The absence of stability in a parental relationship can have a profound impact upon a child's social, emotional, and behavioral development.

The extent to which a child values school and strives to have regular attendance is often a function of the type of relationship they have with their parents and the values which are instilled in the home. Stewart (2006) suggests the indirect influence parents have on their child's education helps influence academic achievement through values and expectations which in turn can have an influence upon the factors which directly contribute to a child's success in school. For this reason, the number of unexcused absences a student accumulates is often a reflection of the values and expectations being transmitted by the parents. Examining absence types can yield clues to the dynamics which are working in the home.

### **Absence Type and Achievement**

Absences in general have been linked to academic problems regardless of subject matter or grade level. A recent study by the Georgia Department of Education (2011a) found that as few as five absences per year can have an impact upon student learning. This study also found that even excused absences were associated with declines in student achievement. For the 2010 academic school year, over 12% of Georgia 8<sup>th</sup> graders missed 15 or more days of instruction.

According to the authors, these absences make students more than 26% less likely to graduate high school than those who did not miss any days of school. Overall, the authors found that student attendance in 6<sup>th</sup> through 9<sup>th</sup> grade is one of the most powerful predictors of which students will eventually drop out of school. The Georgia Department of Education predicted that a statewide increase in student attendance of only 3% would result in over 10,000 more students passing the reading portion of the CRCT examination (McGiboney, 2012, slide 17).

Students who are frequently absent have an increased likelihood of not being promoted (Neild & Balfanz, 2006). Researchers discovered that each 1% increase in eighth-grade attendance rates reduced the odds of being retained by four percentage points (Neild & Balfanz, 2006). They also discovered that for each percentage point increase in eighth-grade attendance, there was a corresponding five percent reduction in the likelihood that child would repeat the *ninth* grade. Given the number of 8<sup>th</sup> grade students in Georgia who are accumulating absences, this data highlights the risks faced by many middle school students whose attendance is not as regular as it should be.

Students with good attendance tend to have higher grades than students whose attendance is poor (Guare & Cooper, 2003; Roby, 2004). When grade-point average (GPA) was used as a measure of academic progress, the number of days present at school was found to correlate with elementary student progress in both math and reading (Gottfried, 2010). This relationship was especially pronounced among students identified as being economically disadvantaged.

Another national study found an inverse correlation existed between days absent and cumulative GPA (NCES, 2009b). As the number of absences increased, students

became statistically more likely to have a GPA less than 3.0. The reverse was true as well. This finding was consistent across all performance levels without regard to absence type.

There is also an inverse correlation between absenteeism and standardized test scores of various kinds (NCES, 2009b; Neild & Balfanz, 2006). Standardized tests have the advantage of being equally administered across schools and classrooms, thus minimizing the impact of differences which might exist between teachers. Gottfried (2010) found that school attendance correlated with higher elementary standardized test scores in reading and even more so in mathematics. The effect sizes were smaller than were seen for GPA but Gottfried speculated this might be due to the fact standardized tests produce larger standard deviations. This is significant, Gottfried, said, because it demonstrates the impact of student attendance across multiple measures of student achievement.

Another study revealed that students with three or more absences of any type were significantly less likely to score at or above basic on the National Assessment of Educational Progress (NAEP) than students with no absences (NCES, 2009a). This finding held true without regard to race or ethnicity. While missing one or two days of school did not associate with lower a lower NAEP assessment, the percentage of students meeting minimum requirements dropped sharply with an accumulation of three or more absences.

Though excused absences affect learning, it appears that unexcused absences may be more detrimental to learning than those which are excused. Unexcused absences have been linked to lower grades than excused absences (Finlay, 2006) as well as lower

standardized test scores (Gottfried, 2009). The effect of absence type on standardized achievement scores holds true even when controlling for previous achievement. This is important because prior achievement is a powerful indicator of a child's current GPA or standardized test performance (Gottfried, 2010).

The academic impact resulting from unexcused absences may not be a result of the absences themselves, but rather the other indices they point to. This is because all student absences result in an equal amount of lost instructional time, but the achievement impact of unexcused absences is greater than those which are excused. An examination of other factors which associate with higher proportions of unexcused absences might provide clues about why absence type matters in student achievement.

Students with a high number of unexcused absences have been shown to have lower motivation levels (Eaton, Brener, & Kann, 2008). Parents of students who have a large number of unexcused absences are often not as involved in their child's school (Sheldon, 2007). Student absences have also been shown to associate with student attitudes toward school (Georgia Department of Education, 2011). Finally, students with large numbers of unexcused absences tend to be less engaged in school (Lehr, Sinclair, & Christenson, 2004).

Gottfried (2010) wished to examine the relationship between absences and achievement while controlling for the *likelihood* of being absent. Gottfried discovered that a direct correlation exists between the distance a child lives from school and the likelihood of being absent on any particular school day. The further a child lives from school, the statistically more likely he or she is to be absent from school. This was true of both elementary and middle grades students. Accounting for distance from school

helps to account for variables such as motivation which might be influencing both attendance and achievement.

Gottfried controlled for distance from school while examining the relationship between absences and achievement (both GPA and standardized test scores) in elementary and middle school students. In so doing, the true impact of student absences in learning emerges, with all children equally likely to attend school on a given day. Gottfried discovered a direct, positive relationship between attendance and achievement across grade levels, subject matters, and achievement measure. This provides strong evidence of the true impact of student attendance on achievement.

Most studies on the affect of student absences focus on either high school or college level students. Studying elementary and middle students may well offer clues not seen in higher level settings. As Gottfried (2009) pointed out, high school students are more apt to be able to drive, leave campus at will, and they are less closely monitored than younger students. Furthermore, because students are more contained, elementary and even middle school team teachers are in a better position to identify those who are at risk of falling behind after a number of absences. For this reason, Gottfried contends studying younger students might yield more clues as to the academic impact of excessive absences.

In most school systems, a suspension from school is counted as an unexcused absence (Coweta County BOE Policy Manual, 2011). The rate at which out of school suspensions occur has been shown to increase significantly in middle school (Arcia, 2006). Arcia found that reading achievement stagnated as suspensions mounted and high rates of suspensions also correlated with an increased likelihood of dropping out of



school. The differences in achievement were so significant that between Grades 5 and 10, students who faced high rates of suspensions often found themselves reading at three to five grades behind students who were not suspended (p. 367). While students who exhibit behavior warranting frequent suspension may be less inclined towards academic aptitude than those who do not get suspended, the results of this study suggest the need for alternative discipline strategies. It also serves to demonstrate the impact of time away from school on progress in reading proficiency.

Aside from these aforementioned studies, there has been relatively little research on how the *type* of absence relates to student learning (Gottfried, 2009). Also unclear is the extent to which these learning gaps might be influenced by family structure and the values which are being modeled. Since student attitudes toward school have been shown to be shaped by both parental influences and absences themselves, further research is needed in this area.

### **The Unique Needs of Middle School Learners**

Young adolescents entering middle school are enduring a very stressful and confusing time of their life. Students in Grades 6 - 8 experience more physiological changes than at any other time other than infancy (Wiles, Bondi, & Wiles, 2006). Teachers assigned to work with middle grades students should be prepared for high levels of disorganization, poor time management skills, uncertainty, and awkwardness (Boller, 2008; Wiles, Bondi, & Wiles, 2006). Beane (1993), however, cautions educators not diminish expectations for adolescents by referring to them with terms such as ‘hormone-driven’, ‘emotional’, or other stereotypically teenage descriptors.

The middle school format, which typically incorporates students in Grades 6 through 8, came into vogue during the late 1970's and early 1980's (Dove, Pearson, & Hooper, 2010). The trend away from K-8 schools was partly an effort to meet the unique needs of young adolescents and partly a response to the surging number of students in elementary schools. The 1970's was also a period of time in which schools were implementing desegregation programs. Middle schools tended to be less segregated than local elementary schools, and those leading integration efforts in the 1970's often wanted to get children into more diverse environments as quickly as possible (Beane & Lipka, 2006). Between 1970 and 1990, a significant number of school systems changed course from K-8 and junior high school formats, and began opening middle schools encompassing Grades 6 through 8 (Dove, Pearson, & Hooper, 2010).

By the early 1990's, the academic community was in general agreement as to the unique needs of middle school aged students (MacIver & Epstein, 1993). There was much less consensus, however, as to the most appropriate school format for meeting these needs. Disagreement still exists as to whether the social and emotional needs of young adolescents are best served through a middle school format, a junior high school, or a myriad of other possibilities.

Regardless of the school format young adolescent students require a different approach than elementary and high school students do. There is a growing sense of dissatisfaction with the output of American middle schools, much as there was for the junior high schools which preceded them (Wiles, Bondi, & Wiles, 2006). Further research is needed which specifically focuses on middle grades learners and how absenteeism and family structure interact. Since middle schools usually encompass only

three grade levels, the amount of research related to attendance, achievement, and family structure which is focused on middle school-age students is less than exists for older and younger students.

### **Summary**

Parental family structure, socioeconomic status, and absence reasons have all singly been linked to academic progress. Evidence exists that they also influence the impact of student absences on the learning process. Family structure is an important variable because it is one of the few factors that the student and school officials have no control over (Lee, Kushner, & Cho, 2007). While numerous studies exist related to each of these components by themselves, a gap exists in the literature related to the specific role these issues play in middle school reading achievement.

Few studies have examined the role of these variables on middle school achievement. Fewer still consider how family structure affects the extent to which absences affect learning. All of these variables need to be examined in the context of poverty, as SES itself is a powerful predictor of student achievement. These gaps in the literature warrant further empirical examination, as this study proposes to undertake.

## **CHAPTER 3: METHODOLOGY**

### **Introduction**

This proposed research study is designed to determine which family and attendance characteristics associate with detrimental effects of student absences. Of particular interest in this study is how these factors affect economically disadvantaged students. Specifically, this study proposes to identify reasons why some students in a Title I school suffer from excessive absences and others do not. A causal comparative design is being employed to examine these issues.

### **Participants**

The participants in this study consisted of approximately 850 students at a Title I public middle school in the South. This middle school is one of five in the county school system it is part of. Though the county in which this school is located has a median family income higher than the state average, but this particular school serves a portion of the county whose families have an average income very close to the state of Georgia average of \$49, 347 (U. S. Census Bureau, 2010). The racial makeup of this middle school mirrors the Georgia average of 59.7% White and 30.5 African American to within a few percentage points. Overall, this particular school provides a student sample which is quite representative of the state as a whole. The participants will be selected by way of a convenience sample. This choice of this particular school was advantageous for a number of reasons.

First, a Title I middle school contains a significant number of students who are considered to be economically disadvantaged, and the impact of absence types and family structure on top of poverty are key foci in this study. Poverty is defined by the number of

students in a school who qualify for the federal free or reduced lunch program.

Approximately 60% of the students at the school in this study qualify for free or reduced lunch. While poverty itself is not a variable in this study, the variables which are being examined are to be considered in the context of a high poverty environment.

Next, while a number of studies have been conducted to examine the impact of unexcused absences on high school students, and some researchers have also looked at elementary students, few studies have specifically focused on the effects of absence type on students in middle school (Gottfried, 2009). The number of students deliberately skipping school increases sharply during middle school and continues to rise throughout high school (Henry, 2007). An examination of how unexcused absences impact reading achievement in middle grades would provide useful data for school leaders. Unexcused absences might be particularly detrimental to economically disadvantaged students, hence the choice of this particular sampling is appropriate.

The final variable in this study is family structure. The participants at this location come from homes with a wide variety of parental structures. The traditional two-parent household is becoming more the exception than the rule in American society, and the parental makeup of families in this school are consistent with this trend. Data from this proposed study should provide a better understanding of how family structure affects and influences a child's academic progress during the middle school years.

Only students who were enrolled in this school for the full academic year (FAY) will be included in this study. Full academic year is defined as students who were continuously enrolled at this school from the fall Full Time Equivalent (FTE) count in September through the state standardized testing window in April. This will ensure that

student performance is not affected by enrollment at another school or excessive periods of non-enrollment.

### **Setting**

The setting of this study is a Title I middle school in Georgia. This is a suburban community in a county with approximately 115,000 residents (U. S. Census Bureau, 2010). This community lies less than an hour from a major metropolitan area and many residents commute to work outside the county.

The principal at this middle school is in her eighth year in charge. She is an exceptionally goal and task-oriented leader who has received numerous awards for her leadership role in this school, including Georgia Middle School Principal of the Year. The principal and one assistant principal hold earned doctorates.

During this principal's tenure there has been a significant decline in frivolous student absences and substantial gains in standardized test scores. This school is currently designated as a Title I Distinguished School, a distinction which it has held for the last six years. The school was also recently recognized for being in the 96<sup>th</sup> percentile in the state of Georgia in terms of gains in student achievement.

Despite serving a substantial number of students who are identified as economically disadvantaged and eligible for special education, this school has continued to show steady gains in student achievement on state-required standardized tests. These achievements are evidence of quality instructional practices in place at this school. This will provide a clearer picture of the impact of the loss of instructional time on student learning.

The student body at this school is approximately 60% White, 33% Black, and 7% ‘other races’. Though a sizable number of students are economically disadvantaged, there are also a considerable number of students whose families are financially well off. In summary, this school provides a very diverse student population for study. Currently 60% of the students at this school meet federal guidelines for being eligible for free or reduced lunch.

The statistical power of a study increases with sample size (Gall, Gall, & Borg, 2010). The total student population of this school ( $n = 850$ ) will provide a more than adequate sample size for the first research question. Subsequent research questions focus solely on students who accumulate 10 or more absences during the academic school year. School records reveal that this number has typically been around 10% of the school population, which would result in a sample size of  $n =$  approximately 80. Olejnik’s sample size table reveals this number to be sufficient for determining whether statistical significance exists at the  $p = .05$  level (Gall, Gall, & Borg, 2010, p. 145).

### **Instrumentation**

The dependent variable in this study is student scores on the reading portion of the Georgia Criterion Reference Competency Test. All students in Georgia who are in Grades 1 through 8 are required by law to take this test in either April or May in the subjects of reading, English/language arts, science, and social studies. Students in 1<sup>st</sup> and 2<sup>nd</sup> grade do not take the science and social studies portions, however (Georgia DOE, 2006). While all public elementary and middle schools are required to administer this test, they are given some flexibility as the dates the exams are given.

During the 2010-2011 school year each academic subject at this school was afforded the same amount of instructional time. Mathematics, literature, language arts, science, and social studies classes met for one hour apiece each school day. Student achievement was measured relative to state standards called the Georgia Performance Standards (GPS) in each subject level (Georgia DOE, 2006). The GPS standards in reading encompass the broad categories of comprehension, knowledge of literature terms and devices, vocabulary, and writing skills.

With the passage of the No Child Left Behind (NCLB) Act of 2001, states were required to ensure that sufficient academic progress was being made by students each year. The CRCT exam was adopted by Georgia as the assessment instrument which would be used to determine whether a school makes Adequate Yearly Progress (AYP). The CRCT exam originally measured student progress in mastering the standards of the Quality Core Curriculum (QCC) but was revised starting in 2004 to reflect a new set of standards being implemented in Georgia schools; the Georgia Performance Standards (GPS). Starting in 2006, 8<sup>th</sup> graders had to meet expectations on GPS standards on certain portions of the CRCT exam in order to be promoted to the 9<sup>th</sup> grade (Georgia DOE, 2011c).

With student promotion and schools' AYP status riding on the validity and reliability of the CRCT, much attention has been paid to the development of this exam. The Georgia Department of Education has hired Georgia educators and curriculum specialists to assist in the development of the CRCT. Since any test that is valid is also reliable, researchers who were constructing the CRCT began by addressing its validity.



Researchers began with the main purpose of the CRCT, which was to measure the extent to which students mastered the skills and content in the state curriculum (Georgia DOE, 2011d). From there, educators decided which content items would be assessed, how they would be grouped, and the weights given to them relative to the entire test. Finally, the items were field tested and reviewed for problems such as bias, poor alignment, and suitability.

Leaders with the Georgia Department of Education believe that “By attending carefully to each phase of the test development process, the GaDOE can ensure that the CRCT is a valid instrument” (Georgia DOE, 2011d). External validity was examined by comparing student scores to those received on other standardized assessments such as the Iowa Test of Basic Skills (ITBS). This same process was followed for each grade level and subject area tested on the CRCT exam.

While a valid test is also reliable, educators carefully measured the reliability of the CRCT exam using two different statistical procedures. These were designed to test the extent to which scores on the CRCT were consistent across multiple administrations of the test (Georgia DOE, 2011d). The first procedure used was Cronbach’s alpha reliability coefficient (1951). This score was computed using a formula derived from work by Crocker and Algina (1986):

$$\alpha = \frac{k}{k-1} \left( 1 - \frac{\sum \sigma_i^2}{\sigma_x^2} \right)$$

Where  $k$  = the number of items,  $\sigma_x^2$  = the total score variant, and  $\sigma_i^2$  = the variance of item  $i$ .

Reliability scores obtained using Cronbach’s alpha range from 0 to 1.

Measurement of the various CRCT tests showed alpha scores ranging from 0.85 for

Grade 8 reading to 0.94 for Grade 7 science (Georgia DOE, 2011d). According to the Georgia Department of Education, these scores suggest the CRCT is sufficiently reliable for its intended purpose.

Nevertheless, Department of Education officials followed this procedure up with second statistical one called the standard error of measurement (SEM):

$$SEM = SD \sqrt{1 - reliability}$$

The result of this reliability index for the sixth grade reading portion of the CRCT was a reliability coefficient of  $\alpha = .87$ . This is also a coefficient which ranges from 0 to 1, so this procedure likewise suggested the CRCT is a reliable assessment instrument for its intended purpose.

Though differences may exist in instructional procedures from teacher to teacher, all CRCT scores are based upon the same set of standards. In this school, all students are given the same nine week examinations to measure formative progress throughout the year. Finally, students are administered the CRCT in strict compliance with requirements of the standardized testing environment. This level of uniformity helps to ensure the validity and reliability of these scores.

The first independent variable in this study is student parental status. There are four categories being considered; single parent, both natural parents, one natural and one step-parent, and guardian. In addition to students living with natural, single, and step-parents, this school serves a number of students living in foster homes and group homes. These students would be considered to be living with a guardian. All this information is provided by the child's parent or guardian on the emergency consent card, which each student has on file in the front office. Since the emergency consent cards are filled out

each year by the child's parent or guardian and are used by the school to facilitate contact throughout the year, they are considered the most up to date and reliable source the school has related to the student's family structure.

The second independent variable is reason for student absence. In addition to the obvious implications for student learning, attendance is required at the federal, state, and local level. Absences are classified as either excused or unexcused according to the stated reason on written documentation provided by the child's parent.

The No Child Left Behind Law of 2002 allows for attendance to be used as one measure of a school's adequate yearly progress (AYP) status and does not make a distinction between excused and unexcused absences (United States Department of Education, 2008). AYP status for Georgia schools hinge partly on student attendance rates. For this reason, cutting down on unnecessary absences is quite important.

Next, the state of Georgia has a compulsory attendance law which allows for fines, community service, and even potential jail time for the parents of students who accumulate more than five unexcused absences during a school year (Georgia Compulsory Attendance Law, O.C.G.A. 20-2-690.1). Though rarely enforced, the law is intended to punish parents who allow their children to regularly miss school for no reason.

For absences to be considered excused in this school district, the parent or guardian must provide written documentation within three days of the absence. Excusable absences are allowed for illness, court appearances, religious holidays, and attendance at a funeral of a relative. Additionally, the Coweta County Board of Education (2011) provides for truancy charges to be filed even for excused absences,

after 12 days of school are missed, unless there is documentation from a doctor (*Coweta County Board of Education Policy Manual, 2011*). All absences which are not followed up by written documentation from the parent are considered unexcused. These measures serve to emphasize the extent to which schools believe that reducing all absences, regardless of whether they are excused or unexcused, is important for promoting learning and preventing delinquent behavior.

Student attendance data are kept on the Infinite Campus computer program and include a record of whether the absence was excused or unexcused. This will be a categorical variable derived from the percentage of total absences which were unexcused (0 to 24%, 25 to 49%, 50 to 74%, and 75 to 100%). This ordinal variable is being used as opposed to a continuous variable (percentage of total absences excused) in order to allow examination of how the absence and family structure variables interact. Because of the great importance placed upon student attendance by state and local officials, these records can be considered a reliable source of data related to student attendance.

### **Procedures**

An application for Liberty University Institutional Review Board (IRB) approval was completed and submitted. IRB was received as was approval from the local school system. Both the IRB and school system research application stressed the fact that no student identifying information will be used in this study, and student instruction will not be affected in any way. The school's principal is aware of this proposed study and has indicated it is feasible. After all the required approval has been given, data collection will begin.

All data will be stored in a secure location to ensure participant privacy. Student names will be replaced with random numbers. A key matching the numbers to student data will be stored at the school in a locked location for one year after the completion of the study. Only the school administrator, the researcher, and other authorized personnel will have access to the data.

Student CRCT scores and attendance records are stored on school computer servers and are accessible by the principal. The data is available in Excel format which lends itself to computer data analysis. Only data pertinent to this study will be accessed.

The student attendance records will first be sorted by absence numbers to separate students into two groups; high absence (10 or more) and low absence students. In past years, high absence students have typically comprised around 10% of the total student population. This sorting process will be done to facilitate a comparison of the overall reading grades of high absence and low absence students.

The rest of this study focuses solely on those students identified as being high absence. The absences accumulated by the high absence students will be analyzed to determine what proportion of the total absences were labeled 'excused' and 'unexcused', in accordance with state and school system guidelines. A column will be added to the data spreadsheet listing a categorical variable from 1 to 4, where 1 denotes 0 to 24% of the total absences were unexcused, a 2 is 25 to 49% unexcused, a 3 means 50 to 74% unexcused, and a 4 means that 75 to 100% of the absences were unexcused.

The student parental status is recorded on emergency consent cards and will need to be entered manually into the spreadsheet. This will be done in a column added to the spreadsheet for this purpose. Although parental status is recorded on the students'

Infinite Campus profile, this data is subject to change from time to time, so the most up-to-date source will be the emergency consent cards which are filled out each year. The only students for whom parental status will be recorded are those who have been identified as high absence students. The four parental status types are; nuclear family, single parent, natural parent and step parent, and guardian. The status will be denoted by a categorical variable from 1 to 4, respectively. Students for whom parental status cannot be ascertained will not be included in this study.

The reading scores of high absence students will be a numeric score from approximately 650 to 950, however scores above 900 are quite exceptional (Georgia Department of Education, 2011). This provides for an interval scale continuous variable consistent with the research design of this study. CRCT reading scores are being used because these tests are given on the same day in a standardized manner. This will eliminate the possibility of differences in teacher grading procedures affecting the outcome. Student reading scores will be manually entered into the data spreadsheet in a column added for this purpose.

Once the data has been added, all student names and other non-relevant information will be deleted from the spreadsheet. The data spreadsheet will only be accessible to the candidate, committee members, and any other legally authorized school system employees. The data will be stored on a school system, password-protected computer, with a backup set stored on a flash-type storage device which will be kept in a locked location.

## **Research Design**

This study will employ a quantitative causal comparative research design to compare the relative impact of two independent variables upon student reading achievement. This ex post facto research design is the appropriate approach since this study is concerned with determining a relationship between independent and dependent variables (Gall, Gall, & Borg, 2010). A number of statistical procedures will be used to address the various research questions.

**Research Question 1:** Is there a statistically significant difference in reading achievement between high absence students and low absence students?

The first research question was concerned with whether a statistically significant difference in cumulative reading scores exists between high absence students and low absence students. The appropriate procedure for answering this question will involve separating the total sample into two groups, those with a high number of absences (10 or more) and those with a low number (nine or fewer). An independent samples *t*-test will be used to compare the mean reading scores of these two groups. This is the appropriate procedure because it allows for comparing the mean scores of two different groups (Szapkiw, n.d). If the student score distribution appears to substantially violate the assumption of normal distribution, the *t* test might be supplemented with a nonparametric test such as the Mann-Whitney *U* test (Gall, Gall, & Borg, 2010). All analyses will be conducted using the SPSS statistical analysis software program.

**Research Question 2:** Is there a statistically significant difference between the reading achievement of high absence students based on their parental family structure?

This research question will be addressed by examining the cumulative reading scores of high absence students to determine whether differences exist based upon their

parental status. The four parental categories are; both natural parents, a single parent, natural parent and step parent, or a guardian. A one-way analysis of variance (ANOVA) will be used to examine the difference between these groups. This is the correct statistical procedure because it will help ascertain whether differences exist between cumulative reading scores “across three or more groups” (Szapkiw, n. d., p. 24).

**Research question 3:** Is there a statistically significant difference between the reading achievement of high absence students based on the proportion of their absences which are unexcused?

This research question will examine high absence (10 or more) students to determine whether statistically significant differences in cumulative reading scores exist according to the proportion of their absences were excused or unexcused. The absences reasons of all high absence students will be examined and the percentage of the total absences which were unexcused will be calculated. Student will be placed into one of four variable categories depending on what percentage of their total absences were unexcused; 0 to 24%, 25 to 49%, 50 to 74%, and 75 to 100%.

The reading achievement scores of high absence students in each of the four absence reason categories will be compared with each other using a one way ANOVA. This is the correct statistical procedure because once again, differences in cumulative reading scores are being examined across four groups (Gall, Gall, & Borg, 2010). Unexcused absences were examined using a categorical variable to allow for consideration of how absences and family structure might interact with each other using a factorial design (Gall, Gall, & Borg, 2010).



**Research question 4:** Is there a statistically significant difference between the reading achievement of high absence who exhibit two risk factors (non-nuclear family and mostly unexcused absences) as compared to those who exhibit either one or no risk factors?

The final research question involves an examination of how these two independent variables (parental status and absence types) might interact with each other to influence the dependent variable (reading achievement). The correct procedure for examining this is a two-way ANOVA, as this will allow a simultaneous examination of the two variables of parental status and four levels of absence type and how they affect the independent variable of reading grades (Gall, Gall, & Borg, 2010).

### **Data Analysis**

The first research null hypothesis stated there would be no statistically significant difference in reading achievement between high absence and low absence students. The results of the two-tailed independent samples *t*-test will be analyzed to determine whether a significant difference between the means exists. The sample size should exceed 700 which should provide for significant statistical power (Gall, Gall, & Borg, 2010; Szapkiw, n.d.). Once all the appropriate assumptions for parametric and *t*-tests have been measured, the *t* value will be calculated and examined at the  $p < .05$  level to test the null hypothesis that no statistically significant difference exists between the cumulative reading scores of high absence students and low absence students.

While the significance level chosen for a research study is to some extent subjective, .05 has become regarded as the minimum level of significance which must be met to satisfy a reasonable scientific standard (Cowles & Davis, 1982). If a study

produces a significance level of  $\leq .05$ , there is less than one chance in 20 that the results obtained were a result of chance. Put another way, a significance level of less than .05 means there is at least a 95% chance the differences in group means are real and not a result of random chance.

Null hypotheses 2 and 3 relate to whether statistically significant differences exist between the mean reading scores of high absence students based on parental status and absence type. Assumption tests appropriate for parametric and ANOVA tests will be conducted first. If assumptions are violated, a non-parametric alternative to the ANOVA is the Kruskal-Wallis test (Szapkiw, n.d.). If the assumptions are satisfied, a one-way ANOVA will be conducted to test null hypotheses two and three.

The second null hypothesis stated there will be no statistically significant difference between the cumulative reading scores of high absence students based on their parental family structure. Based upon previous school year data, the number of students who accumulate 10 or more absences should be in the 80 to 100 range. This should provide adequate statistical power, especially if the sample size approaches 100 (Szapkiw, n.d.).

A one-way ANOVA will be used to determine whether a statistically significant difference exists among student reading scores based upon their family structure. If the results show the effect of family structure is significant, post-hoc analyses will be conducted to determine where the significance exists. A significance level of  $p < .05$  will be used to minimize the risk of a Type I error (Szapkiw, nd.).

The third null hypothesis stated there would be no statistically significant difference between the cumulative reading scores of high absence students based on the

proportion of their absences which are unexcused. After assumption testing is complete, a one-way ANOVA will be conducted to determine whether there is a significant effect of absence type upon student reading achievement. If the ANOVA results indicate a significant effect, post-hoc analyses will be conducted to determine where the effect is (Gall, Gall, & Borg, 2010).

The final null hypothesis will address whether interactions between the two independent variables of family structure and unexcused absences affects the extent to which student absences relate to reading achievement. The results from a two-way factorial ANOVA will be used to determine whether and the extent to which these variables interact with each other in terms of the effect of absence on reading achievement. The main effect for each variable will first be determined from the SPSS data. Next, interaction effects for the three variables will be examined to determine whether statistically significant impacts on reading achievement result from variable interactions (Gall, Gall, & Borg, 2010).

## **CHAPTER 4: RESULTS**

This causal comparative research study was designed to determine how the independent variables of parental status and unexcused absences relate to reading achievement in 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade students at a Georgia Title I middle school. Specifically, this research study sought to determine the relationship of absence type and family structure to reading achievement in a middle grades setting. Reading achievement was defined as cumulative student reading achievement measured by the students' reading scores on the Georgia Criterion Referenced Competency Test, which is a standardized test.

This study was grounded upon the social learning theory of Albert Bandura, which posits that learning results from modeling which does not occur when a child is absent from school. Conversely, parental modeling of values may be a factor in student learning, and this could be evidenced by the proportion of student absences which are unexcused. This study was designed to test whether the absence of modeling in a classroom or the presence of values modeled by parents relate to student achievement.

### **Demographic Data**

An application for Liberty University Institutional Review Board (IRB) approval was completed and submitted. IRB approval from Liberty University was received. Written approval was also received from the local school system. Both the IRB and school system research application stressed the fact that no student identifying information would be used in this study, and student instruction would not be affected in any way. The school's principal was aware of this proposed study and indicated it was feasible.

All data was stored in a secure location to ensure participant privacy. After all data needed for the study was entered into the data file, student names were replaced with random numbers. A key matching the numbers to student data was stored at the school in a locked location. This data was to be saved for one year after the completion of the study. Only the school administrator, the researcher, and other authorized personnel will have access to the data.

Student CRCT scores and attendance records were stored on school computer servers and were accessible by the principal. The data was made available in Excel format which lent itself to computer data analysis. Only data pertinent to this study was accessed.

The student attendance records were sorted by absence numbers to separate students into two groups; high absence (10 or more) and low absence students. This sorting process was done to facilitate a comparison of the overall reading grades of high absence and low absence students. A column was added in the data file which was coded according to whether the student fell into the high or low absence category.

The rest of this study focused solely on those students identified as being high absence. The absences accumulated by the high absence students were analyzed to determine what proportion of the total absences were labeled 'excused' and 'unexcused', in accordance with state and school system guidelines. A column was added to the data spreadsheet listing a categorical variable from 1 to 4, where 1 denoted 0 to 24% of the total absences were unexcused, a 2 is 25 to 49% unexcused, a 3 meant 50 to 74% unexcused, and a 4 meant that 75 to 100% of the absences were unexcused.

The student parental status was recorded on emergency consent cards and needed to be entered manually into the spreadsheet. This was done in a column added to the spreadsheet for this purpose. Although parental status is recorded on the students' Infinite Campus computer profile, this data is subject to change from time to time, so the most up-to-date source was the emergency consent cards which are filled out each year. The only students for whom parental status information was recorded were those who have been identified as high absence students. The four parental status types were; nuclear family, single parent, natural parent and step parent, and guardian. The status was denoted by a categorical variable from 1 to 4, respectively. Students for whom parental status could not be ascertained were not included in this study.

The reading scores of high absence students were numeric scores on an interval scale. This provided a continuous variable consistent with the research design of this study. CRCT reading scores were used because these tests are given on the same day in a standardized manner. This eliminated the possibility of differences in teacher grading procedures affecting the outcome. Student reading scores were provided by the school principal on a data spreadsheet.

Once the data was added, all student names and other non-relevant information was deleted from the spreadsheet. The data spreadsheet was only accessible to the candidate, committee members, and any other legally authorized school system employees. The data was stored on a school system, password-protected computer, with a backup set stored on a flash-type storage device which was kept in a locked location.

The reading scores obtained by students at this school on the standard version of the CRCT test ranged from 757 to 920. A score of 800 to 849 indicated a student had met minimum expectations on the reading portion of the CRCT. A score of 850 or higher meant the student had exceeded expectations. A score of 799 or lower meant the child did not meet expectations. The proportion of scores in each group is shown in Figure 1.

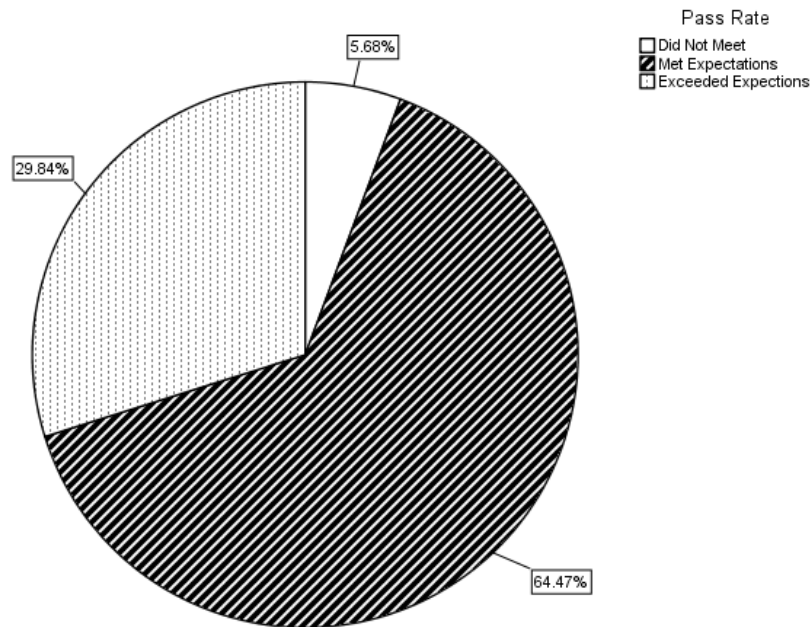


Figure 1. Proportion of students not meeting, meeting, and exceeding expectations.

Twenty-two students took a modified version of the CRCT in compliance with the requirements of special education testing modifications. The scores on the modified CRCT test ranged from 253 to 335. On this version of the test, a student had to score at least 300 to meet expectations on the reading portion of the CRCT test. The CRCT scores are scaled scores derived from raw test data (Georgia DOE, 2011d). All scores on the CRCT and CRCTM fell into different ranges, however, so the CRCTM scores had to be modified for statistical calculations to be accurate.

To convert the modified CRCT scores the following formula was used:

$$\frac{CRCTM}{300} = \frac{X}{800}$$

Where *CRCTM* is the score received on the modified version of the CRCT test.

The variable *X*, once isolated, became the adjusted CRCT score. It was decided to use the minimum passing score as a point of reference for the conversion because it was near the middle of the distribution of modified scores and was also the main score on both scales designated as a point of reference by test designers.

The mean CRCT score for all tested students was 832 with a standard deviation of 24.07. A histogram of all scores shows a distribution which has a slight negative skew. There were a number of outliers on the low end of the scale (Figure 2). There is also a spike in scores around the 850 mark. This is the score needed to exceed expectations on

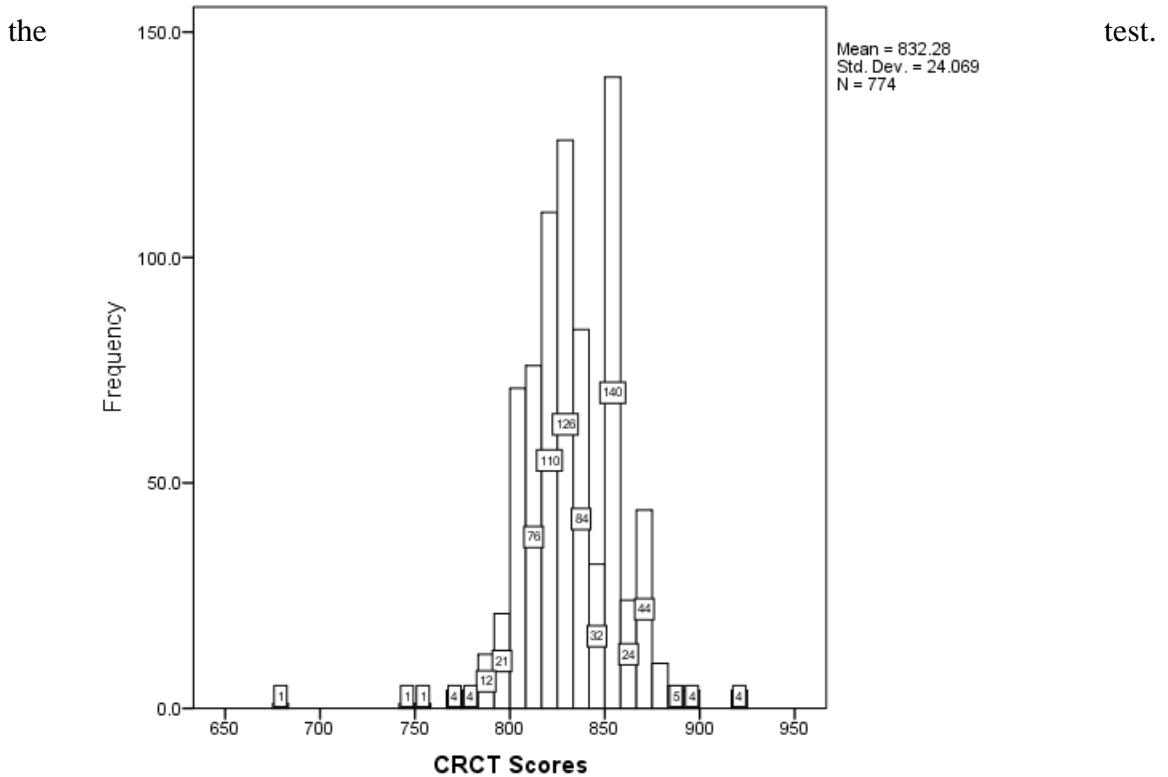




Figure 2. Distribution of CRCT scores.

Seventh grade comprised the largest proportion of the sample, and sixth grade was the smallest. Table 1 shows the sample breakdown by grade level, including the nearly 9% of students for whom scores were not available.

Table 1.

<i>Student Grade Level</i>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	238	28.0	30.7	30.7
	7	281	33.1	36.3	67.1
	8	255	30.0	32.9	100.0
	Total	774	91.1	100.0	
Missing Scores		76	8.9		
Total		850	100.0		

### Research Question 1

Research Question 1 related to whether there was a statistically significant difference in reading achievement between high absence students and low absence students. Prior to conducting the statistical test, the data was examined in light of assumptions which needed to be met for accurate results. All calculations were done with IBM's SPSS Statistics Base Grad Pack, Version 20 software.

The first assumption test was Levene's Test for Equality of Variances. The significance score was .836. This indicated equality of variances could be assumed.

When testing the data for normality among the two groups (high and low absence) the Kolmogorov-Smirnov test revealed normally distributed data for the low absence group, but *not* for the high absence group (see Table 2).

Table 2.  
*Tests of Normality*

		Absences		Kolmogorov-Smirnov		Shapiro-Wilk			
				Statistic	df	Sig.	Statistic	df	Sig.
Assessment Scale Score	Low			.075	605	.000	.968	605	.000
	High			.056	169	.200	.989	169	.190

Skewness for the low absence data set was -0.239 with a standard error of 0.099. Doubling the standard error produced a normality range of -0.198 to 0.198 (Price, 2000). The skewness value for the low absence group fell outside this range, indicating the likelihood of a non-normally distributed data set.

The kurtosis variable was 3.374 with a standard error of 0.198. Doubling the standard error produced a normality range of -0.396 to 0.396. The kurtosis statistic fell outside this range as well.

Finally, a histogram revealed a data curve which, though not normal, was not terribly skewed. Given the relatively large size of the low absence group ( $n = 605$ ) and the overall robustness of the two-tailed  $t$ -test, the test results would likely be tenable (Szapkiw, n.d.). Concerns about the normality of the distribution were eventually addressed, however.

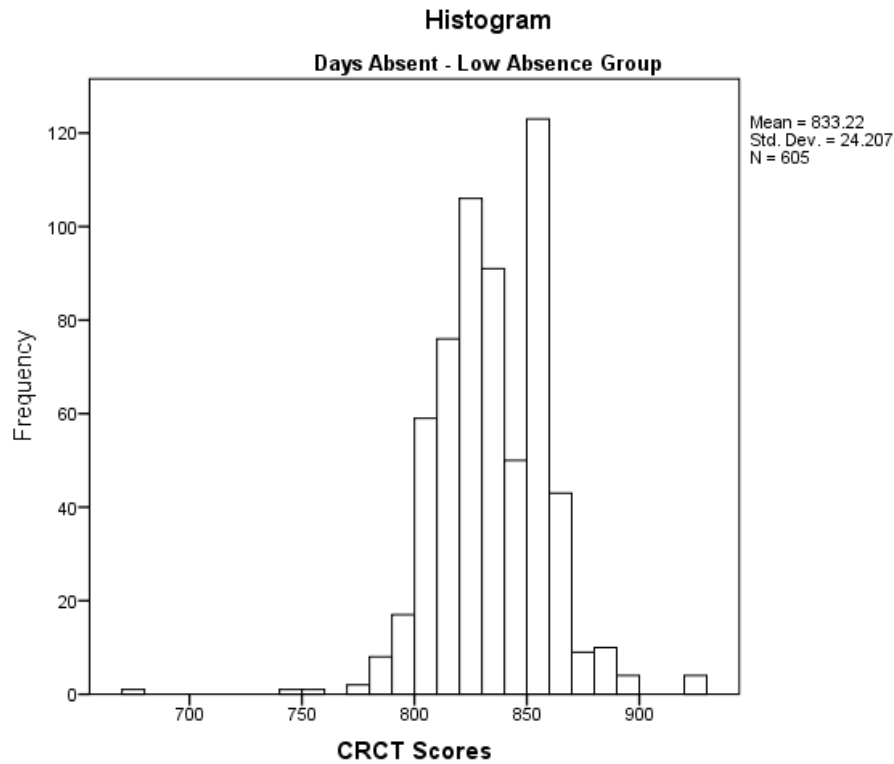


Figure 3. Distribution of CRCT scores in the low absence group.

The cumulative number of student absences ranged from 0 to a high of 35. A total of 99 students were recorded as having no absences during the academic year. The average number of student absences was 6.06. The absence median was 4 and the mode was 2. A total of 169 students were absent for 10 days or more during the academic year. There were 605 students who were absent nine days or less.

An independent samples *t*-test was conducted to determine whether a statistically significant difference existed between the reading CRCT scores of students in the low absence group compared with those in the high absence group. Students in the low absence group ( $M = 833.22$ ,  $SD = 24.21$ ) differed significantly on the reading portion of the CRCT from students in the low absence group ( $M = 828.89$ ,  $SD = 23.32$ ).

The independent samples *t*-test resulted in  $t(772) = 2.07$ ,  $p = .039$ . The *t* table value for *t* at  $t_{.05}(772)$  is  $\pm 1.96$ . The *t* value of 2.07 fell outside this range, indicating a

statistically significant difference. Since the normality assumption was in question, however, further testing was warranted.

Zimmerman (2011) stated that when the normality assumption is doubtful, one should conduct a non-parametric (Mann-Whitney) test and compare the results. If the data was normally distributed, there would not be a great deal of difference between the output statistics. If, on the other hand, the Mann-Whitney score varied significantly from the *t*-test results, the former should be used. The Mann-Whitney test revealed a two-tailed significance of  $p = .031$ , which was very close to the *t*-test outcome (see Table 3).

Table 3.

		<u>Test Statistics</u>	
		Assessment Scale Score	
Question	Mann-Whitney U		45586.500
	Wilcoxon W		59951.500
	Z		-2.156
	Asymp. Sig. (2-tailed)		.031

Since both the independent samples *t*-test and the Mann-Whitney test yielded significant results, the null hypothesis of  $\mu_1 = \mu_2$  was rejected. The alternative hypothesis of  $\mu_1 \neq \mu_2$  was not rejected.

Research questions 2, 3, and 4 all focused on students who accumulated 10 or more absences during the school year ( $n = 169$ ). Since this sample was different from the sample used in research Question 1, an examination of the descriptive statistics was in order.

The mean CRCT score for the high absence group was 828.89 (SD = 23.32). A visual inspection of a graphic representation of CRCT scores appeared to show a

distribution which more closely resembled a normal curve than that of the overall student sample (see Figure 4). Since the sample size was greater than 50, the Kolmogorov-Smirnov test for normality was the appropriate choice (Szapkiw, n.d.). The results of that test confirmed the normal distribution of CRCT scores among high absence students (see Table 4).

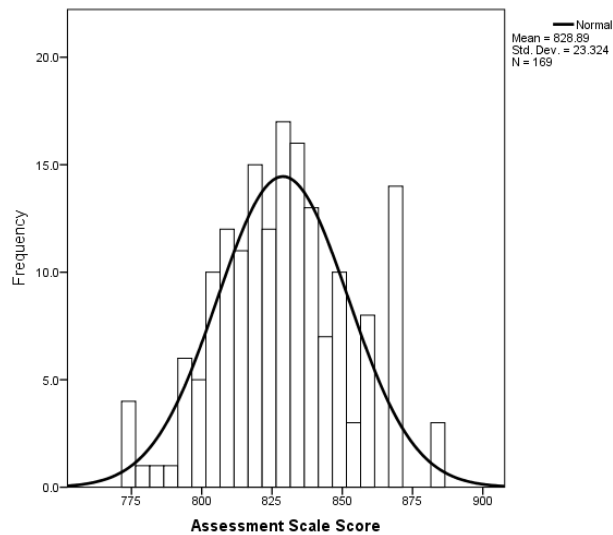


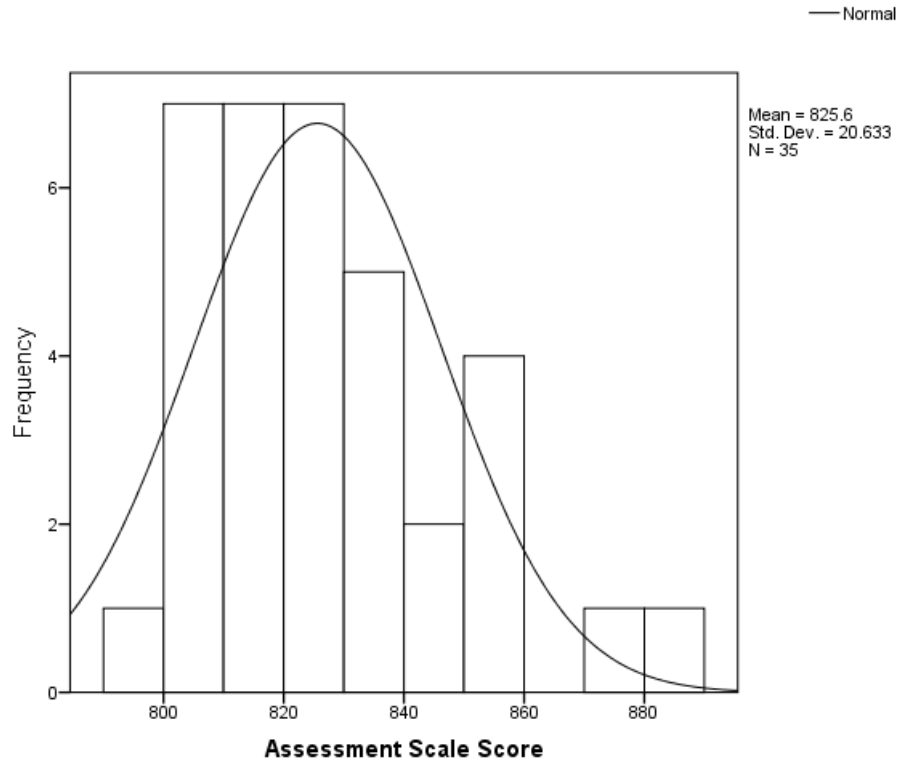
Figure 4. Distribution of CRCT scores among high absence students

Table 4.

<i>Tests of Normality</i>						
	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Assessment Scale Score	.056	169	.200	.989	169	.190

In order to conduct the one- and two- way ANOVA's required by research Questions 2, 3, and 4, assumption tests were conducted on data in each of the variable categories. When data in the unexcused absence category were analyzed, the Shapiro-

Wilk test for normality yielded a significance value of .037 among students whose unexcused absences comprised 51-74% of their total ( $n = 35$ ). With the normality of this variable in question, a histogram of this sub-group was examined (see Figure 5). This graph revealed a distribution which was positively skewed.



*Figure 5.* Distribution of CRCT scores among high absence students with 51-74% of absences coded as unexcused.

With the normality assumption for this data set not tenable, a number of options were considered, including data transformation and non-parametric testing. This was an important matter because a comparison of output data for research Question 2 revealed completely different results when using a one-way ANOVA versus the non-parametric Kruskal-Wallis test. Ultimately, the best option appeared to be increasing the sample size.

Research Questions 2, 3, and 4 were to be conducted with data from students who had a high number of absences. Initially, ‘high absence’ was defined as 10 or more absences during the course of the school year. The mean number of absences for the year in the overall sample was 6.06, but there were a significant number of outliers that made this number deceptively large. The median number of absences was 4.0, and this provided a better picture of absence trends for this school year. Out of 774 students, 388 (50.1%) were absent four days or less.

On the other hand, approximately three out of every 10 students were absent for eight days or more. Since eight absences comprised twice the median number and less than a third of the total student sample, revising the definition of a high absence student to those with eight or more absences was a reasonable step. Including students with eight or nine absences in the high absence data set added 56 students, an increase of 33%.

An independent samples *t*-test conducted with the original high absence data set resulted in a rejection of the null hypothesis of  $\mu_1 \neq \mu_2$ . The same conclusion was reached with the Mann-Whitney test. This research question was re-examined with the revised data set, commencing with the assumption tests.

When testing the data for normality among the two groups (high and low absence) the Kolmogorov-Smirnov test once again revealed normally distributed data for the high absence group, but *not* for the low absence group (see Table 5). Levene’s test for equality of variables resulted in a significance of .195, greater than the .05 needed for equal variances to be assumed (see Table 5).

Table 5.

*Tests of Normality*

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Low and	Kolmogorov-Smirnov	Shapiro-Wilk
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	High	Statistic	df	Sig.	Statistic	df	Sig.
Assessment	1.00	.074	544	.000	.967	544	.000
Scale Score	2.00	.056	230	.075	.991	230	.192

An independent samples *t*-test was conducted to compare the CRCT scores of high and low absence students. Though the data for low absence students did not meet the normality assumption, this test was conducted so the results could be compared with results obtained with a non-parametric test. The *t* table value for *t* at  $t_{.05}(772)$  is  $\pm 1.96$ . The results of an independent samples *t*-test were  $t(772) = 2.30, p = .022$ .

Next the data was analyzed with an independent samples Mann-Whitney test. The result was  $p = .017$ , which was very close to the result obtained in the parametric test. Since both the independent samples *t*-test and the Mann-Whitney test yielded significant results, the appropriate conclusion was to reject the null hypothesis of  $\mu_1 = \mu_2$  (Zimmerman, 2011). The alternative hypothesis of  $\mu_1 \neq \mu_2$  was not rejected.

## **Research Question 2**

Research Question 2 addressed whether there was a statistically significant difference between the reading achievement of high absence students based on their parental family structure. This part of the study included data only from students who accumulated eight or more absences prior to CRCT testing ( $n = 224$ ). Absences accumulated after CRCT testing were not counted because they would not have had an effect on student achievement on the standardized test. Reading achievement scores were compared based on parental family structure using a one-way ANOVA.

The most recent and reliable source of information relative to student family structure was the emergency consent cards which a parent or guardian is asked to fill out



at the beginning of each school year. This card is used for contact information in the event of an emergency and for school personnel to know which adults are authorized to check a child out of school. The card specifically asks the parent or guardian for their relationship to the child and to other parent figures in the household.

A column was added to the data set in which each student was coded with a '1' if the student lived with both natural parents ( $n = 111$ , 49.6% of the total sample). Students who lived with a natural parent and a step-parent were coded with a '2' ( $n = 41$ , 18.3% of the total). Students who lived with a single natural parent were coded with a '3' ( $n = 63$ , 28.1% of the total). Finally, students who lived with a guardian, such as a non-parental relative, foster parent, or in a group home, were coded with a '4' ( $n = 9$ , 4.0% of the total).

The assumptions for a one-way analysis of variance include normality, equal variances, and independent observations (Szapkiw, n.d.). The latter assumption was met in the fact that each observation, or score in this study are independent of each other. To test the assumption of normality, Shapiro-Wilk and Kolmogorov-Smirnov tests were conducted. Table 6 shows that the results of these tests were non-significant in all four categories of family structure.

Table 6.

*Tests of Normality*

	Family structure	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Assessment Scale Score	Nuclear	.065	111	.200	.986	111	.318
	Step-parents	.089	41	.200	.962	41	.184
	Single parent	.071	63	.200	.982	63	.477
	Guardian	.247	9	.120	.938	9	.564

The final assumption test was for equality of variances. This test resulted in a significance value of .301, which indicates equality of variances can be assumed.

A one-way ANOVA was conducted to determine whether a statistically significant difference existed in the average reading achievement scores of middle school students based on their family structure. The descriptive statistics are summarized in Table 7. As the results show, students living with both natural parents had the highest mean reading scores and students living with a guardian had the lowest.

Table 7.

*Descriptives*

Family Structure	N	CRCT Scores				
		Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Natural parents	111	833.23	20.421	1.938	829.39	837.08
Step parents	41	827.66	24.793	3.872	819.83	835.48
Single parent	63	824.68	21.471	2.705	819.28	830.09
Guardian	9	822.00	19.691	6.564	806.86	837.14
Total	224	829.36	21.781	1.455	826.49	832.23

The analysis of variance revealed the effect of family structure was not significant at the .05 level,  $F(3, 220) = 2.621, p = .052$ . The null hypothesis for research Question 2 was not rejected.

### Research Question 3

Research Question 3 addressed whether a statistically significant difference existed in reading achievement scores among high absence students depending upon the proportion of absences which were unexcused. Out of school suspensions were included in the unexcused absence numbers in accordance with school board policy, which classifies out of school suspensions for disciplinary reasons as unexcused absences (Coweta County BOE Manual, 2011). The proportion of absences which were unexcused were calculated as a percentage of the absences as a whole, and then coded with a '1' for 0 to 24% unexcused ( $n = 78$ ), a '2' for 25 to 49% ( $n = 72$ ), a '3' for 50 to 74% ( $n = 49$ ), and a '4' for 75 to 100% unexcused absences ( $n = 25$ ). These codes were entered into a new column on the data spreadsheet.

The scores within each group of absence percentages were independent of each other so the assumption of independent observations was met.

Levene's Test for Equality of Variances was used to determine whether the assumption of equal variances was met. A significance score of .186 was the result, so the assumption of equal variances was met.

The assumption of normality was problematic with the original high absence sample, hence the decision to increase the sample size. Kolmogorov-Smirnov and Shapiro-Wilk tests revealed the assumption of normality was tenable in this revised sample of high absence students. Table 8 summarizes these results.

Table 8.

<i>Tests of Normality</i>		
Unexcused	Kolmogorov-Smirnov	Shapiro-Wilk

	absence percentage	Statistic	df	Sig.	Statistic	df	Sig.
Assessment Scale Score	0-24%	.072	78	.200	.975	78	.131
	25-49%	.079	72	.200	.973	72	.120
	50-74%	.105	49	.200	.968	49	.209
	75-100%	.139	25	.200	.960	25	.422

The analysis of variance revealed the effect of family structure was not significant at the .05 level,  $F(3, 220) = 2.630, p = .051$ . The null hypothesis for research Question 3 is not rejected. The results are shown in Table 9.

Table 9.

CRCT Scores by Unexcused Absence Rate						
Unexcused Absence Rate	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0-24%	78	831.88	18.209	2.062	827.78	835.99
25-49%	72	831.43	24.644	2.904	825.64	837.22
50-74%	49	827.59	22.433	3.205	821.15	834.04
75-100%	25	818.96	19.709	3.942	810.82	827.10
Total	224	829.36	21.781	1.455	826.49	832.23

#### Research Question 4

The fourth and final research question in this study sought to determine whether family structure and absence type interacted to relate to student reading achievement scores. A four-by-four two-way ANOVA was used.

The assumptions of independent samples, equality of variance, and normality were all tested previously in this study. Since the normality assumptions were already shown to be tenable, they were not tested again. The Levene's Test of Equality of Error

Variances, however, yielded a significance of  $p = .026$ , which indicated equality of variances could *not* be assumed.

To address this problem, a logarithmic data transformation was conducted using the SPSS statistical program. Student CRCT scores were transformed into a new variable which was then subjected to Levene's Test of Equality of Error Variances. The new data set yielded exactly the same result ( $p = .026$ ) as the original data set, so equality of error variances could not be assumed with transformed data.

According to Griffiths (2011), this problem can sometimes be alleviated by changing the way variables are grouped. Since there was no convenient way to regroup the family structure variable, the unexcused absence variable was re-categorized. Instead of using quartiles as was done in the original group, tertiles were used to divided the sample into three groups according to what percentage of all absences were unexcused; 0 – 33% ( $n = 122$ ), 34 – 66% ( $n = 71$ ), and 67 – 100% ( $n = 31$ ). This categorization of the unexcused absence variable allowed for grouping into low, medium, and high groups without compromising the integrity or purpose of the study.

The Levene's Test of Equality of Error Variances was run with the newly grouped data and yielded a result of  $p = .182$ . With the equality of error variances now assumed to be tenable, the study could proceed.

Since the unexcused absence variable was re-categorized, normality tests were done to ensure this assumption was met. Both the Kolmogorov-Smirnov and Shapiro-Wilk tests indicated non-significant results. The normality assumption for this sample was tenable.

The correct procedure for this part of the research study was a 4 x 3 two-way ANOVA, since there were four levels in the family structure category and three levels in the absence category of independent variables (Gall, Gall, & Borg, 2010). The analysis of variance demonstrated that the interaction of family structure and unexcused absence rate was not significant,  $F(6, 223) = 1.44, p = .199$ . There was also no main effect for family structure,  $F(3, 223) = 1.40, p = .244$  or for unexcused absence rate,  $F(2, 223) = 1.97, p = .142$ .

### **Summary**

The results of this study indicated a statistically significant difference in reading achievement scores existed between students who were absent eight days or more and those who were absent seven days or less. Although the results of research Questions 2 and 3 were very close to statistical significance ( $p = .051$  and  $.052$ , respectively), the null hypotheses in both cases were not rejected, meaning this study found no statistically significant difference in reading achievement scores based on either family structure or unexcused absence rates. Finally, the results of research Question 4 yielded no statistically significant main effect interaction between family structure and unexcused absence rates related to student reading achievement.

## **CHAPTER 5: SUMMARY AND DISCUSSION**

This causal comparative research study was designed to examine some of the variables which affect how absences from school impact student reading achievement. The variables of student family structure and unexcused absences were examined in light of their relationship to student reading achievement on a standardized test. This purpose of this chapter is to discuss and review the findings of this study. This chapter is organized into the following sections: statement of the problem, summary of study, discussion, assumptions, limitations, recommendations for future research, and conclusion.

### **Statement of the Problem**

Student attendance has been linked to academic achievement across grade levels and subject areas (Guare & Cooper, 2003, Roby, 2004, Neild & Balfanz, 2006). Due to the importance of regular school attendance, all fifty states currently have laws mandating compulsory attendance in some sort of educational program (NCES, 2011). Despite laws and programs designed to improve student attendance, absences do occur; often to the detriment of student achievement. Some students, however, suffer from absences more than others.

Unexcused absences have been shown to be more detrimental to achievement than those for which a parent provided documentation of an excusable reason (Gottfried, 2009). Absences are typically excused for illness, court appearances, and religious holidays. To be excused, a parent or guardian must provide the school written documentation as to reason for the absences within three school days.

A high rate of unexcused absences might provide clues about the values being transmitted in a child's home environment. Bandura (1977) suggested modeling is one key way children learn, and an aversion to school (as evidenced by a high number of unexcused absences) might be indicative of values about education transmitted in the child's home. Conversely, a child with few or no unexcused absences might come from a home where frivolous absences are not tolerated.

The students' family structure is another variable which has been linked to achievement (Hines, 2007). Students living in single parent homes and those living with a guardian often have lower achievement scores than children living in a traditional two-parent household (Heard, 2007). Heard also found that students who live with both biological parents were more likely to be in a home with long term stability than children in other family structures, and stability has been associated with higher achievement. Given the reality of divorce and remarriage in America, schools must be aware of the effect a family structure can have on student achievement.

The setting of this study was a Title I school, so poverty was an issue which could not be ignored. Poverty has consistently been shown in research literature to be a powerful predictor of academic achievement (Dahl & Lochner, 2005; Sirin, 2005; McCoach, et al., 2010). Poverty so strongly associates with achievement that to include it



as a variable would be problematic, as it might overshadow other variables of interest. While this study did not include SES as a variable, its existence in the setting of this study was noted and considered in light of the findings.

The goal of this study was to determine whether student family structure and unexcused absence rates associated with reading achievement. An examination of the physical structure of a student's family together with the values evidenced by unexcused absence rates afforded a more comprehensive view of which students were being impacted by absences from school. A summary of the study is in the next section.

### **Summary of Study**

**Research question 1.** Is there a statistically significant difference in cumulative reading achievement between high absence students and low absence students?

**Research question 2.** Is there a statistically significant difference between the cumulative reading achievement of high absence students based on their parental family structure?

**Research question 3.** Is there a statistically significant difference between the cumulative reading achievement of high absence students based on the proportion of their absences which are unexcused?

**Research question 4.** Is there a statistically significant difference between the cumulative reading achievement of high absence who exhibit two risk factors (non-nuclear family and mostly unexcused absences) as compared to those who exhibit either one or no risk factors?

**Question 1 results.** To determine which children were most affected by absences from school, the variables of unexcused absence rates and family structure were

examined. Before doing this, however, an independent samples *t*-test was conducted to determine whether students with a high number of absences for the year had reading scores which differed significantly from those with a low number of absences. The result of the *t*-test confirmed what had been suggested by the literature; students with a high number of absences (eight or more) scored significantly lower on the reading portion of the Georgia CRCT test than students who had a low number of absences ( $p = .022$ ).

**Question 2 results.** The second research question focused on student family structure among high absence students. A one-way analysis of variance was conducted to determine whether statistically significant differences in reading achievement scores existed depending on a student's family structure. The four types of family structure considered were two natural parents, natural parent and a step-parent, a single parent, and student lives with a guardian. No statistically significant difference was found as result of the one-way ANOVA ( $p = 0.51$ ).

**Question 3 results.** To address research Question 3, a one-way ANOVA was conducted to determine whether a relationship existed between the proportion of absences which were unexcused and reading achievement scores among high absence students. The result of the ANOVA was no statistically significant difference in reading achievement scores based on unexcused absence rates ( $p = .052$ ).

**Question 4 results.** The final research question was designed to determine if there was any interaction effect between family structure and unexcused absence rates relative to reading achievement scores. A 4 x 3 two-way ANOVA was conducted comparing the interaction of the two variables and reading achievement scores. The results of the two-way ANOVA revealed no interaction effect between the two

independent variables ( $p = .199$ ). Furthermore, there was no main effect for either the family structure variable ( $p = 1.40$ ), or the unexcused absence variable ( $p = 1.42$ ).

## **Discussion**

**Research question 1.** There is a great deal of research related to the relationship between student attendance and school achievement. The preponderance of studies has shown a positive association between school attendance and achievement. Consistent with this prior research were the findings of the independent samples  $t$ -test relative to research Question 1. Students who had accumulated eight or more absences scored significantly lower on the reading portion of the Georgia CRCT test than did students who had seven absences or less ( $p = .022$ ).

Research by the Georgia Department of Education suggested as few as five absences per year, regardless of reason, can have a detrimental impact upon student achievement (Georgia Department of Education [DOE], 2011a). Statewide in Georgia 12.3% of eighth grade students were absent 15 days or more in 2010 (McGiboney, 2012). The percentage of eighth graders at the school in this study who were absent 15 days or more during the course of the year was only 8.4%. This attests to the good job this school is doing to promote attendance, relative to other middle schools in the state.

Nevertheless, those students who were in the high absence group scored significantly lower on a standardized reading assessment than their low absence peers. This shows that, despite the efforts of this school to promote attendance school wide, the absences accumulated by students in the high absence group have had an effect on learning. Since this school appears to be doing a better than average job of reducing

absences, those students who are still in the high absences group may be more likely to be disassociated with school, and this might account for the lower achievement scores.

Since this study took place at a Title I school, the potential impact of poverty could not be overlooked. Poverty has been specifically linked to lower reading scores among students (Burnett & Farkas, 2009). The effect of poverty on learning intensifies when children enter the middle grades years (Chatterji, 2006). Finally, poverty has been shown to actually contribute to poor attendance (Claes, 2009), which shows just how difficult it can be to trace the ultimate source of lags in student achievement.

According to Bandura (1977), learning often occurs as a result of modeling. The achievement gap between these two groups could possibly be due to the absence of modeling which occurred when students did not attend school. Another interpretation might be the values toward education which have been modeled and transmitted by parents who allowed their children to accumulate a large number of absences.

**Research question 2.** A one-way analysis of variance revealed no statistically significant relationship between student family structure and reading achievement. Though the level of significance was not reached, the obtained *p* value (.052) was very close. Despite a failure to reject the null hypothesis, the results of this part of the study bear closer examination.

Students who lived with both natural parents had the highest average score on the CRCT ( $M = 833.23$ ). Students living with a single parent ( $M = 824.68$ ) and a guardian ( $M = 822$ ) had the lowest scores. While single independent samples *t*-tests between the various groups might actually yield significant results, to do so would run the risk of a Type I error (Gall, Gall, & Borg, 2010). Furthermore, the purpose of this phase of the

study was not to determine whether differences existed between any two particular family structure groups. Instead, the purpose was to determine whether family structure as a variable was significantly related to reading achievement, and according to the results, it was not.

There are a number of possible explanations for the absence of a significant achievement difference based on family structure. First, most of the students living with a guardian were reported as living with a relative, such as a grandmother or an aunt. Research has shown that placement with a relative is less detrimental to student achievement than foster care placement with strangers (Pecora, et al., 2006), so this may account for the smaller than expected differences in achievement.

Next, students living with a single parent have been shown to have lower reading achievement scores than students in two-parent households (Marks, 2006) due in part to the fact a household headed by a single parent typically has a lower income than one with two parents. Income alone, however, does not account for all the difference in achievement (Shaff, Wolfinger, Kowaleski-Jones, & Smith, 2008). First, a supportive environment and the availability of resources can often offset the effect of living in a single parent home (Gennetian, 2005; Chin & Chu Ho, 2006).

Furthermore, with 60% of the students at this setting qualifying for free or reduced lunch, it is likely that a sizable proportion of students living in two-adult households were in poverty despite the presence of a second adult. According to Sirin (2005), poverty affects a host of other variables, such as the neighborhood a child lives in and access to resources and support. It is possible these factors influenced the reading achievement of students in two-adult households to the extent they did not significantly

outperform students living with a single parent. A replication of this study in a low-poverty school might yield different results.

**Research question 3.** A one-way analysis of variance resulted in a failure to reject the hypothesis of no difference in reading achievement based on student unexcused absence rates. As with the second research question, the  $p$  level (.051) was extremely close to significance. Predictably, the average CRCT scores were lower among students who had a higher proportion of unexcused absences. High absence students with 0-24% of absences listed as unexcused had a mean CRCT score of 831.88, while those with 75-100% listed as unexcused had a mean CRCT score of 818.96. As was the case with research Question 2, however, running  $t$ -tests between individual groups would increase the risk of a Type I error, so the null hypothesis for this question was not rejected.

As previously mentioned, the school in this study has fewer absences among eighth graders than the average for the state of Georgia. This suggests that efforts by the school staff to reduce frivolous absences are paying dividends. It also has implications for why the unexcused absence rates at this school are not associated with reading achievement rates.

The school in this study had eighth grade attendance rates which were approximately 32% lower than the state average. Students who are sick, suspended, or otherwise unable to attend school on a given day will continue to be absent regardless of school initiatives to improve attendance. Efforts to reduce absences at this school were focused upon students who were inclined to skip school or who may not have felt well but could make it through a school day anyhow. These students would have accumulated more absences in an average Georgia school, as evidenced by the higher absence rates

statewide. Repeating this study at a more typical Georgia middle school might show a significant relationship between unexcused absences and reading achievement.

Absences resulting from out of school suspensions were recorded as unexcused in keeping with school system guidelines. Disciplinary infractions resulting in out of school suspensions are relatively severe or repeated, as minor incidences are handled with battery of in-school options ranging from warnings and lunch detentions to in-school suspension. Students who are frequently suspended are more likely to struggle academically than those who are not (Rausch & Skiba, 2004).

Students in the high absence group accumulated a total of 2788 absences. 1812 of these (approximately 65%) were excused. Out of the 35% of absences which were recorded as unexcused, 136 absences resulted from out of school suspensions. This means suspensions accounted for 5% of the total absences and 16% of the unexcused absences among high absence students.

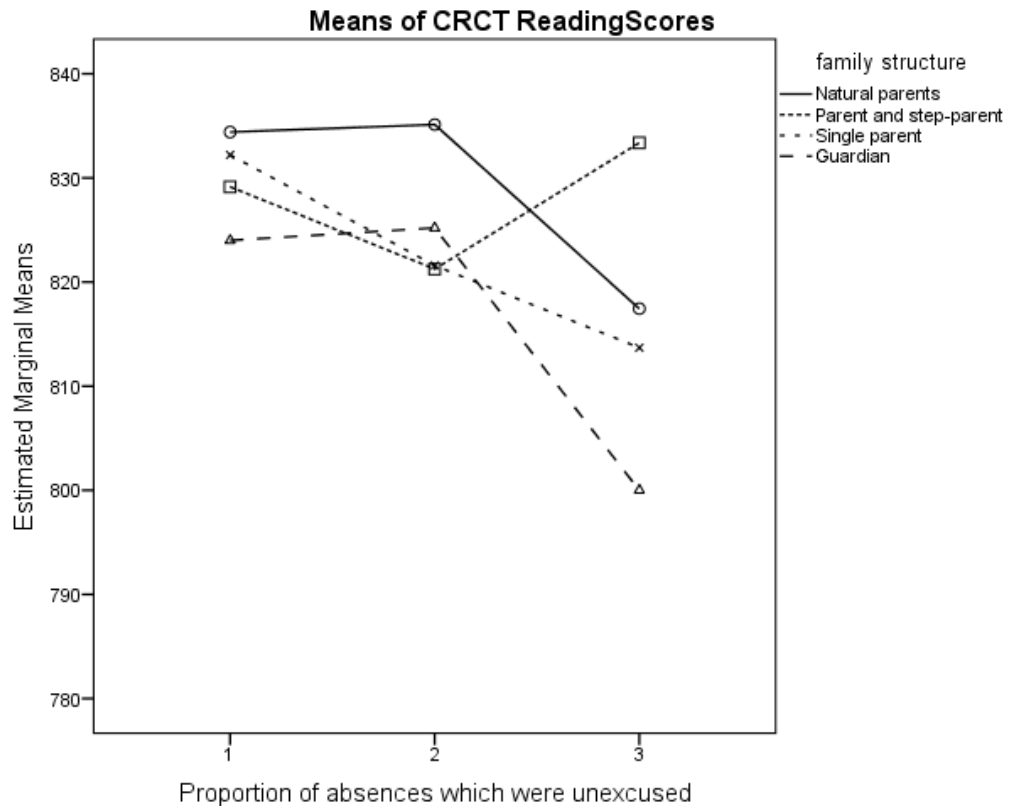
Nationwide, one out of every 14 students (7%) were suspended at least once during the school year (NCES, 2009a). At this school, 11% of students were suspended out of school at least once. In the high absence group, 17% of students were suspended at least once. Despite the fact that the proportion of students being suspended out of school is slightly higher than the national average, there appears to be no statistically significant association between the corresponding absences and reading achievement.

**Research question 4.** The final research question was designed to determine whether there was an interaction effect between the independent variables of family structure and unexcused absence rates. The result of a two-way analysis of variances was

no interaction effect ( $p = .199$ ). Furthermore, there was no main effect for either variable ( $p = .244$  and  $.142$ ).

With the exception of students living with a step-parent, students in all family structure arrangements generally had a decline in average CRCT scores as the proportion of unexcused absences increased. High unexcused absence students living with a step-parent actually had higher mean CRCT scores than step-parent students in the medium and low unexcused absence groups. This was not true of students in other family structure arrangements, as shown in Table 1. It is unclear why students living with a step-parent actually scored higher in reading, despite an accumulation of unexcused absences.

Table 1.





## **Assumptions**

It was assumed, based on data provided by the testing coordinator for the Georgia Department of Education, that the Georgia Criterion Referenced Competency Test was a valid and reliable assessment of student reading achievement. Furthermore, it was assumed that students put forth their best effort to answer questions on the test. The reading portion of the CRCT was administered on Monday, the first day of the testing week, which presumably would occur before students would begin to tire of the testing process.

It was assumed that each teacher administered the CRCT using standardized procedures to ensure uniformity. It is worth mentioning that a test cheating scandal in a large, nearby school district helped spur a great deal of interest in ensuring that proper testing protocols were followed.

To the extent poverty was a consideration in this study, it was assumed the free and reduced lunch applications submitted by students were accurate. These applications are the source for the data used to determine whether a school qualifies for Title I status. Parents provide information about their household income but this information is not verified by any outside source.

It was assumed that family structure information on the emergency consent cards was accurate and current. Parents and guardians are required to fill out new cards each school year in order to ensure up to date information. This contact information is used to contact parents in the event of an emergency, so it was assumed parents and guardians would have an interest in providing accurate information to the school.

Children present for half a day or more were counted as present for the day. It is possible some students were recorded as present at school, despite having missed the class in which reading was taught. It was assumed that the number of days present was reasonably close to the number of days present in literature class.

Finally, it was assumed that absence information was recorded accurately. Since students have six different classes during the day and attendance is taken each class period, it was relatively easy to determine whether a child was at school or not. Whether an absence was recorded as excused or unexcused, however, depended upon whether a parent or guardian provided written documentation about the absence. It was assumed, for the purposes of this study, that this information was accurate.

### **Limitations**

According to Cavanagh, Schiller, and Riegle-Crumb (2006) long term stability in a family structure arrangement is more conducive to student learning than *any* family structure which lacks permanency. When collecting family structure data from the emergency consent cards, it was noted that quite a number of them (perhaps eight to 10 per grade level) showed evidence of a change in family structure during the course of the school year. The father or step-father's name was crossed out on some cards, and others showed names which appeared to have been added after the card was originally completed. Some emergency consent cards actually indicated one parent was not allowed access to the child due to a court restraining order. While this study was able to examine reading achievement in light of the stated family structure, it was not able to account for disruption in family arrangement or for the length of time the family

arrangement had existed. Upheaval in a child's home situation has been shown to have an adverse effect on achievement (Potter, 2010).

Another limitation of this study was related to the way absences were recorded as having been excused or unexcused. When a child is absent from school, the parent is required, within three school days, to provide written documentation of the reason for the child's absence. If no documentation is provided, the absence is recorded as unexcused. As previously mentioned, the State of Georgia along with the local school system in this study have both implemented punitive measures which can be taken against parents who allow their children to accumulate five or more unexcused absences. Since implementation of these rules, unexcused absences and absences in general have declined sharply. School records revealed that during the 2002-2003 school year, 18.3% of students at this school were absent 15 days or more. This number has dropped steadily each year, with only 7.1% of students missing 15 or more days during the 2010-2011 school year (School Archival Records, n.d.).

Because of these aggressive measures to improve school attendance and the lower absence rates which resulted, the relationship between unexcused absences and achievement at this school may not be representative of typical middle schools in Georgia or across the country. Furthermore, it is possible that parents were writing excuse notes for absences which occurred for reasons which would not be excusable under school system guidelines. This would have been done in order to avoid sanctions for parents and their children. While this school can determine definitively whether a child is present or absent from school, they usually have only the word of parents as to whether the absence was for an excusable reason.

Out of school suspensions were recorded as unexcused absences, and in-school suspensions are counted as days present at school. Students assigned to in-school suspension were given assignments by their teacher but they spent their day in a room separate from their regular classes. This study was not able to account for the effect of lost instruction and modeling which may have resulted from students who, though present at school, were not in the classroom.

### **Recommendations for Future Research**

One of the family structure categories in this study was ‘student lives with a guardian’. Students in this category were reported to live with an adult(s) other than their biological parent(s). According to the data, very few of the high absence students who were in the guardian category lived in a foster home or group home situation, despite the fact this schools serves many such students. The majority (all but two) of guardian students had emergency consent cards which indicated the adult they lived with was a relative such as a grandparent or aunt and uncle.

The possibility exists that students living in foster homes with non-relatives have better attendance than those who live with relatives. This is not surprising given the fact non-relative foster parents are required to send children in their care to school regularly (Georgia Foster Parent Manual, 2011), whereas a grandparent might be at liberty to allow a child to stay home more frequently. Despite this, however, research has shown that children in foster care with non-relatives do not achieve as well as children in other family structure arrangements (McClung & Gayle, 2010).

The empathy factor arising from a familial bond might make a natural relative more inclined to allow unnecessary absences from school as compared to a traditional

foster parent. Since the sample size in this study was relatively small, a more extensive investigation would be needed to fully understand the association between the way a guardian is related to a student and school attendance patterns which arise.

Next, it should be noted that reading is a somewhat unique academic discipline in that many students choose to read outside of school as a leisure activity. Reading for pleasure outside of school may account for increases in reading proficiency which are not due to any school instructional activities. This is not true of many other academic areas.

Few students choose to study new types of mathematical procedures on their own time. Since math concepts often build upon previously acquired knowledge, it stands to reason that frequent absences may be more apt to affect academic progress in math than it was shown to in reading. An investigation into the relationship between absence type, family structure, and math achievement may well reveal a stronger association than were found in this study. The same might be true of an examination of how these independent variables relate to science or social studies achievement.

Finally, it was noted in the final research question that high unexcused absence students living with a step-parent actually had an increase in CRCT reading scores relative to low and medium absence step-parent students. Whether this was an anomaly or something substantive would require further research. Such an investigation would need to consider whether any reason exists for students with step-parents to excel in reading despite accumulating a large number of unexcused absences. It would also need to examine whether step-parents are less likely to provide written documentation following an excusable absence.

## **Conclusion**

The results of this study did show a statistically significant relationship existed between the reading achievement scores of students with eight or more absences as compared to students with seven absences or less. While many studies have shown a relationship between school attendance and achievement, most of them have focused on elementary, high school, and college settings. This research has contributed to the understanding of how students learn by focusing how these variables work in a middle-grades setting.

While this study did not find a statistically significant relationship between student family structure, unexcused absences, and achievement, the results suggest that further research in this area might be fruitful. First, as was case in the first part of this study, the variables of family structure and unexcused absences have mostly been done in the context of elementary and high school settings, despite the challenges associated with teaching students in early adolescence. Also, this study did not examine achievement in other subject areas such as mathematics and science where a large number of absences might be more apt to affect achievement. Finally, the fact over half the students in this sample were eligible for free or reduced lunch suggests poverty may have had an impact upon student learning.

In a school where poverty was not as big a factor, it is possible a stronger relationship might exist between the variables of family structure, unexcused absences, and achievement. Research done in a low poverty middle school or that which assesses achievement in other subject areas might help contribute to our understanding of how family structure and unexcused absences affect student learning.

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**APPENDIX A: LIBERTY UNIVERSITY IRB APPROVAL**



The Graduate School at Liberty University

January 16, 2012

James Hixson  
IRB Approval 1237.011612: The Relationship of Family Structure and Absence  
Type to Reading Achievement

Dear James,

We are pleased to inform you that your above study has been approved by the Liberty IRB. This approval is extended to you for one year. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB and we wish you well with your research project.

Sincerely,

A handwritten signature in black ink, appearing to read "Fernando Garzon".

**Fernando Garzon, Psy.D.**  
*IRB Chair, Associate Professor*  
**Center for Counseling & Family Studies**

**(434) 592-5054**



APPENDIX B: INVESTIGATOR AGREEMENT PAGE

IV. INVESTIGATOR AGREEMENT & SIGNATURE PAGE

BY SIGNING THIS DOCUMENT, THE INVESTIGATOR AGREES:

- 1. That no participants will be recruited or entered under the protocol until the Investigator has received the final approval or exemption email from the Chair of the Institutional Review Board.
2. That no participants will be recruited or entered under the protocol until all key personnel for the project have been properly educated on the protocol for the study.
3. That any modifications of the protocol or consent form will not be initiated without prior written approval, by email, from the IRB and the faculty advisor, except when necessary to eliminate immediate hazards to the participants.
4. The PI agrees to carry out the protocol as stated in the approved application: all participants will be recruited and consented as stated in the protocol approved or exempted by the IRB. If written consent is required, all participants will be consented by signing a copy of the approved consent form.
5. That any unanticipated problems involving risks to participants or others participating in the approved protocol, which must be in accordance with the Liberty Way (and/or the Honor Code) and the Confidentiality Statement, will be promptly reported in writing to the IRB.
6. That the IRB office will be notified within 30 days of a change in the PI for the study.
7. That the IRB office will be notified within 30 days of the completion of this study.
8. That the PI will inform the IRB and complete all necessary reports should he/she terminate University Association.
9. To maintain records and keep informed consent documents for three years after completion of the project, even if the PI terminates association with the University.
10. That he/she has access to copies of 45 CFR 46 and the Belmont Report.

Timothy Hixson
Principal Investigator (Printed) Principal Investigator (Signature) Date

FOR STUDENT PROPOSALS ONLY

BY SIGNING THIS DOCUMENT, THE FACULTY ADVISOR AGREES:

- 1. To assume responsibility for the oversight of the student's current investigation, as outlined in the approved IRB application.
2. To work with the investigator, and the Institutional Review Board, as needed, in maintaining compliance with this agreement.
3. That the Principal Investigator is qualified to perform this study.
4. That by signing this document you verify you have carefully read this application and approve of the procedures described herein, and also verify that the application complies with all instructions listed above. If you have any questions, please contact our office (irb@liberty.edu).

Karen L. Parker Faculty Advisor (Printed) Faculty Advisor (Original Signature) Date 12-21-2011

\*The Institutional Review Board reserves the right to terminate this study at any time if, in its opinion, (1) the risks of further experimentation are prohibitive, or (2) the above agreement is breached.







**APPENDIX D: SCHOOL APPROVAL LETTER**



[REDACTED]  
[REDACTED]  
[REDACTED], GEORGIA  
[REDACTED]

January 10, 2012

Dear Liberty University,

Tim Hixson has permission to conduct a research study at [REDACTED] Middle School consistent with Liberty University and [REDACTED] County School System guidelines. The research variables he will need to access include student attendance data (excused and unexcused absence totals for all students), family structure for high absence students, and cumulative CRCT reading scores from the 2010-2011 academic year. It is understood that no identifying information will be used in this study.

Respectfully,

[REDACTED]

Principal

## APPENDIX E: EMERGENCY CONSENT CARD

6th PLEASE COMPLETE BOTH SIDES

Homeroom _____	Student ID # _____
----------------	--------------------

**Emergency Information** (State ID is required for sign-out)

SSN: \_\_\_\_\_  
DOB: \_\_\_\_\_

Student's Legal Name: \_\_\_\_\_  
(Last) (First) (Middle) (Called)

Parents Marital Status:  Married  Divorced  Other

Mother's Name: \_\_\_\_\_  Natural Mother  Legal Guardian  
Current Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_  
Employer: \_\_\_\_\_ Hours of Employment \_\_\_\_\_ Work Phone \_\_\_\_\_  
Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_ Pager #: \_\_\_\_\_

Father's Name: \_\_\_\_\_  Natural Father  Legal Guardian  
Current Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_  
Employer: \_\_\_\_\_ Hours of Employment \_\_\_\_\_ Work Phone \_\_\_\_\_  
Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_ Pager #: \_\_\_\_\_

**Contact 1**  
Full Name: \_\_\_\_\_ Relationship \_\_\_\_\_  
Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

**Contact 2**  
Full Name: \_\_\_\_\_ Relationship \_\_\_\_\_  
Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

**Contact 3**  
Full Name: \_\_\_\_\_ Relationship \_\_\_\_\_  
Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

**Contact 4**  
Full Name: \_\_\_\_\_ Relationship \_\_\_\_\_  
Home Phone: \_\_\_\_\_ Work Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

## APPENDIX F: CRCT VALIDITY AND RELIABILITY BRIEF

An Assessment & Accountability Brief: 2011 CRCT Validity and Reliability



### Validity and Reliability for the 2011 Criterion-Referenced Competency Tests

The Georgia Department of Education (GaDOE) oversees the development of the Criterion-Referenced Competency Tests (CRCT) and adheres to the *Standards for Educational and Psychological Testing* (1999) as established by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME). The intent of these standards is “to promote the sound and ethical use of tests and to provide a basis for evaluating the quality of testing practices” (AERA, APA, NCME, 2). Key to any assessment is the adherence to the *Standards* that address the issues of validity and reliability. While validity is the most important consideration in the test development process, a test cannot be valid without a high degree of reliability.

#### Validity

According to the *Standards*, “validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests” (9). It is important to understand some key elements of validity. First, validity exists in context. A test may have a high degree of validity for one proposed use, but less validity for another. Second, validity is a matter of degree and is not an “all or nothing” condition. Finally, validity is associated with a multi-faceted process and collection of evidence over time. Questions of validity cannot be accurately summed up in a single statistic. Ultimately, the answer to a validity question for a test rests in careful documentation of the test development process. The *Standards* include 24 separate standards related to validity; however, these standards are not prescriptive for each test but should be considered as to whether they are applicable for the particular test under consideration. This brief will succinctly describe the major evidences of validity for the CRCT.

One of the first pieces of evidence for establishing a tests’ validity is a clear identification of the purpose of the test. In the case of the CRCT, the state legislature has identified the purpose to be a measure of how well students have mastered the state’s curriculum (O.C.G.A. § 20-2-281). The CRCT is mandated by state law and is designed to measure how well students acquire the skills and knowledge described in the Georgia Performance Standards (GPS). These tests are designed to measure the performance of students in grades one through eight in reading, English language arts, and mathematics and in grades three through eight in science and social studies. In addition to measuring how well students acquire the skills and knowledge described in the GPS, the CRCT have the additional goals of identifying the areas where the students need improvement, informing various stakeholders of the progress toward meeting academic achievement standards of the state, meeting the requirements of the *No Child Left Behind Act (NCLB)*, and gauging the overall quality of education in the state of Georgia. The assessments yield information on academic achievement at the student, class, school, system, and state levels. The evidence then for the validity of the CRCT relies primarily on how well the assessment instrument matches the intended curriculum and how the score reports inform the various stakeholders – students, parents, and educators – about the students’ performance.

Therefore, the test development cycle for the CRCT must begin with the state’s mandated curriculum – the GPS. Because the GaDOE believes that the curriculum resides both in the approved published curricular documents as