

THE EFFECTS OF THE GRADUATION COACH ON THE ATTENDANCE AND
MATH AND READING GEORGIA CRITERION REFERENCED COMPETENCY
TEST SCORES OF AT-RISK STUDENTS IN A NORTH GEORGIA MIDDLE
SCHOOL

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The Effects of the Graduation Coach on the Attendance and Math and Reading Georgia
Criterion Referenced Competency Test Scores of At-Risk Students in a Northwest
Georgia Middle School
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Abstract

Melissa Clark Travillian. THE EFFECTS OF THE GRADUATION COACH ON THE ATTENDANCE AND MATH AND READING GEORGIA CRITERION REFERENCED COMPETENCY TEST SCORES OF AT-RISK STUDENTS IN A NORTH GEORGIA MIDDLE SCHOOL. (Under the direction of Dr. Constance Pearson - School of Education, June 2010).

Until graduation coaches were added to all Georgia high schools for the 2006-2007 school year, the state of Georgia had one of the lowest graduation rates in the United States. After the high school graduation coaches were found to be successful in decreasing the dropout rate, coaches were added at the middle school level beginning in the 2008-2009 school year. The purpose of this study was to examine the effects of the middle school graduation coach on the attendance and the math and reading CRCT scores of the at-risk student. A control group of at-risk students that did not receive treatment was compared to the experimental group that received treatment from the middle school graduation coach during the 2008-2009 school year. The pretest and posttest math and reading CRCT scores and attendance were analyzed using an analysis of covariance (ANCOVA) to determine if the middle school graduation coach had a significant effect on the at-risk students. The hypotheses that the graduation coach would have an effect on the sixth, seventh, and eighth grade at-risk students' attendance and math and reading CRCT scores were rejected because the ANCOVA found that any significant increases or decreases were not due to the effect of the middle school graduation coach. Analysis of

gender was completed using a paired t-test and found significant increases in the math and reading CRCT scores of males in the experimental group and the reading CRCT scores of females in the control group.

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Dedication

I would like to dedicate this research study to my family. John, my husband and best friend, thank you for being my biggest cheerleader over the last two years. I never could have reached the finish line without your love and support. Maddie and Bryce, you are the two most precious children in the world; thank you for your unconditional love and patience throughout this process. I also dedicate this study to my parents who have inspired me to reach any goal I desire.

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Chapter One: Introduction

The No Child Left Behind Act has caused schools to focus a great deal of their attention on standardized test scores. In the meantime, 25% of the United States high school population is dropping out of school with one-third of the dropouts being minority students (Quad, 2008). The dropout rate disproportionately affects those students who come from low socio-economic levels, single parents, inner cities, and/or minorities (Bridgeland, Dilulio, & Morison, 2006). Declines in the graduation rate are thought to be attributed to the increase in graduation requirements, state demographic changes, decreased emphasis on technical and career studies, and the state accountability systems that have been implemented (Southern Regional Education Board, 2005). Libby Quaid (2008) reported that when comparing the industrialized countries of the world, the United States is the only country where the parents are more likely to earn a diploma than their children. Other industrialized countries have surpassed the United States while it is standing still. This will eventually have a negative effect on the United States' ability to compete with other nations (Quaid, 2008).

Each year about 2000 students in the state of Georgia drop out of school before they have entered the ninth grade (Schmidt, 2007). Unfortunately, Georgia has led the nation in having one of the highest percentages of dropouts. A report released in 2005 found that only the District of Columbia and four other states had lower graduation rates than the state of Georgia (Diamond, 2008). In 2006, Sonny Perdue, the Governor of Georgia, devised a program to place a full-time graduation coach in every high school in the state. After being in place for two years, the Georgia graduation program has created

thousands of high school graduates that might have otherwise dropped out of school. Many of the graduates will enter the workforce or enroll in higher education programs, which will directly contribute to Georgia's economy (Georgia Department of Education, 2008).

After the program was found to be successful at the high school level, the middle school graduation coach program was then offered to every Georgia public middle school for the 2007-2008 school year. The greater need was to start the intervention process at the middle school level because the middle school student's educational experiences were crucial to his future. Balfanz (2009) found that students at the middle grades level either head toward attainment and achievement or become frustrated, slide off track, and eventually exit from a path to success, which includes graduating from high school and moving towards career training or a post-secondary education.

During the middle school years, students have often demonstrate a decline in motivation. Some students develop negative attitudes and behavior problems, which seem to defeat the student's investment in schooling (Anderman & Maehr, 1994). The graduation coaches have been placed at the middle school level to devise intervention plans for those who have been targeted as at-risk students by their teachers and the National Dropout Prevention Network. Some of the responsibilities of the graduation coach have included: tutoring and assisting students with their academic subjects, helping students plan their courses for high school, and career planning with the middle school students (Tonn, 2006). When appropriate intervention is provided during the middle school years, it can make the difference between a student's academic success and failure (Garriott, 2007).

Statement of the Problem

All middle schools in the state of Georgia must meet certain requirements to achieve Annual Yearly Progress (AYP). These requirements are known as Annual Measureable Objectives (AMO) and are based on the standards that have been created by the No Child Left Behind Act of 2001. One of the indicators that a middle school has reached AYP is based on the percentage of students meeting or exceeding math and reading scores on the Georgia Criterion-Referenced Competency Test (CRCT). The second indicator requires that no more than 15% of the school population misses 15 or more days in a school year. The students who do not meet these requirements are often labeled as at-risk for not graduating from high school.

The middle school involved in this study has struggled over the past few years to reach Annual Yearly Progress after failing to meet AYP requirements in the areas of math CRCT scores and attendance during the 2004-2005 school year. The state of Georgia requires middle schools to meet an attendance rate of 85%. The attendance rate for the 2005 school year had reached 83.9%, which was unacceptable. The attendance rates improved to approximately 93.5% during the 2005-2006 and 2006-2007 school years but started to decrease in the 2007-2008 school year when it reached 89.1%.

There were enough students who met or exceeded math scores on the CRCT for the 2006 school year that the middle school achieved AYP status without any special considerations. The middle school was then labeled as reaching “safe harbor” for the 2007 school year. Safe harbor is reached when a subgroup has demonstrated that it has reduced by 10% the number of students that have scored below acceptable levels from the previous year. In the case of this middle school, the subgroup involved was the

students with disabilities. Although the students' math CRCT scores did not show much of an improvement from the previous year, the middle school then reached a confidence interval for the 2008 school year. The confidence interval can be found by using a statistical calculation that provides a school with a range of acceptable values within which the actual score would fall. The labels *safe harbor* and *confidence interval* allowed the middle school to reach AYP with special considerations from the state of Georgia.

This middle school hired its first graduation coach for the 2008-2009 school year. At the beginning of the year, the middle school graduation coach worked closely with the teachers and the Graduation Coach Work Management System to develop a caseload of 46 at-risk students who seemed to be most in need of services from the graduation coach. The National Dropout Prevention Network found that there were 466 students out of the approximately 750 student population that were considered to be at-risk for not graduating from high school. She prepared for her new position in the summer of 2008, by attending several professional learning programs provided by the Georgia Department of Education's School Improvement Services Secondary Redesign and Graduation Unit and Communities in Schools of Georgia. The coach also worked closely with regional high schools to share strategies and ideas that could be used during her first year at the middle school.

This study examined the effects of the middle school graduation coach on the math and reading Georgia CRCT scores and the attendance of the at-risk students on her caseload. The goals of the middle school graduation coach are to mentor, query, coach, and inspire students to find academic success (Georgia Graduation Coach Incentive,

2008). In order to succeed in school, middle school students must be provided with a nurturing and safe environment that supports adolescents as they find a sense of competence and achievement (Wilson, 1998).

Purpose

The purpose of this research project was to find out if the middle school graduation coach program was effective in helping at-risk students find academic success and improve student attendance. This research attempted to further study the new concept of middle schools adding graduation coaches to help assist the at-risk students.

Governor Sonny Perdue began placing graduation coaches in middle schools when he found that there was a number of struggling students dropping out of school even before they reached high school (Jacobson, 2007). A study by the state of Georgia suggested that an effective strategy was to place one person in charge of creating and monitoring graduation plans for students who are at risk of dropping out of school (Jacobson, 2007). Even though graduation rates have shown to improve significantly when at-risk students are targeted early, teachers and parents cannot just hope that adolescents will grow out of their negative feelings toward school (Garriott, 2007).

Questions and Hypotheses

This study attempts to find the answer to the following research problem:

What effect does the use of a middle school graduation coach have on the math and reading Georgia Criterion Referenced Competency Test scores and the attendance of sixth, seventh, and eighth grade at-risk students?

RQ₁: Does the use of a middle school graduation coach have an effect on the attendance of sixth, seventh, and eighth grade at-risk students?

H₁: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher attendance than the control group of students who do not.

RQ₂: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test math scores of sixth, seventh, and eighth grade at-risk students?

H₂: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test math scores than the control group of students who do not.

RQ₃: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test reading scores of sixth, seventh, and eighth grade at-risk students?

H₃: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test reading scores than the control group of students who do not.

RQ₄: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the female experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the female control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₄₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of female at-risk students who received services from the middle school graduation coach

H₄₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₃: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₄: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₅: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₆: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

RQ₅: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the male experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the male control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₅₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of male at-risk students who received services from the middle school graduation coach

H₅₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H₅₋₃: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of male at-risk students who receive services from the middle school graduation coach.

H₅₋₄: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H₅₋₅: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade

experimental group of male at-risk students who receive services from the middle school graduation coach.

H₅₋₆: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

Definition of Key Terms

Adequate Yearly Progress (AYP) – An indicator for each state that is required by the No Child Left Behind Act of 2001 to establish standards that measure student performance each year.

Annual Measureable Objective (AMO) – The comparison of a school's performance to a specific target which determines whether a school meets Adequate Yearly Progress.

At-Risk Student – A student at-risk of dropping out of school due to a history of school failure, academic struggles, poor attendance, disengagement from school, and/or frequent behavior problems.

Attendance Rate – The number of days present during a period of one school year.

A student must be present at least 165 out of the 180 day school calendar, otherwise the student may be retained due to poor attendance.

Dropout – One who withdraws from school before graduating.

Georgia Criterion-Referenced Competency Test (CRCT) – The standardized test that is administered to all students in grades one through eight that measures whether or not students have achieved the Georgia Performance Standards.

Georgia Graduation Coach – A person employed at the middle and high school level in

the state of Georgia, whose job is to identify and work with at-risk students so that they might graduate from high school. The qualifications of graduation coaches are that they have a bachelor's degree from an accredited four-year college, credentials are issued by the Professional Standards Commission, and they have three years' experience involving work with students (Georgia Department of Education, 2008).

No Child Left Behind (NCLB) – The No Child Left Behind Act was signed into law by President George W. Bush in 2002. It was built on the following principles: greater flexibility and control, accountability for results, emphasis on using scientific research to do what works, and more parent choice (No Child, 2008).

Risk Ratio – The ratio that is given to each student which represents the degree that a student is determined to be at-risk; such as attendance, standardized test scores, retention, ethnicity, and behavior (Georgia Department of Education, 2008). The risk ratio score ranges from 0 to 1, with 1 presenting the greatest risk for a student not graduating from high school (Georgia Department of Education, 2008)

The Study

The goal of the study was to examine the effects of a middle school graduation coach on the motivation of students who have been targeted as being at-risk of dropping out of school. The high school graduation coach program, which was initially implemented during the 2006-2007 school year, has shown to be successful during its first two years with the graduation rate having increased from 70.8% at the end of the 2005-2006 school year to 75.4% at the end of the 2007-2008 school year (Georgia Department of Education, 2008). Due to the success of the high school graduation coach program, graduation coaches were added at the middle school level in 2007 to ensure that

students had a smoother transition process from middle school to high school and to enlighten students on the importance of school to their future aspirations.

This study provided an in-depth examination of those at-risk students who received services from the middle school graduation coach and how their reading and math CRCT scores and attendance were affected. Other states may examine the strategies the Georgia graduation coaches have used to support their at-risk students and possibly decrease the number of students dropping out of school in order to attempt to increase their graduation rates and meet 100% graduation rate by the year 2014 that was set by the No Child Left Behind Act for all states to reach.

Organization of the Dissertation

This dissertation is organized into five different chapters. Chapter one included the introduction, purpose of the study, statement of the hypotheses, research questions, and the definition of key terms. Chapter two provides a review of literature that relates to the study. The methodology of the study, including the design of the study, selection of the site and subjects, and procedures, are discussed in chapter three. Chapter four discusses the results of the data analysis. A summary of the research, including a discussion of the results, implications, limitations, and applications are provided in chapter five.

Chapter Two: Literature Review

Students who drop out of school can become a problem to both themselves and to society. Preventing students from dropping out of school has been a difficult task. In 1982, the graduation rate in the United States had reached its highest point at 75% and then started a slow decline (Southern Regional Education Board, 2005). Between the years of 2002 and 2006, only one in three states was found to have made measurable progress in increasing the graduation rate (Balfanz & West, 2009). The nation started to understand that graduation rates were not as high as once realized, and the United States was facing a dropout crisis (Balfanz & West, 2009). Janosz, LeBlanc, Boulerice, and Tremblay (2001) found that the process that led to students dropping out of school did not usually involve personal characteristics of the individual but was usually determined by the student's achievement, motivation, and participation in school.

The decision to drop out of school can be a dangerous one for students in today's world. President Obama noted in a recent speech that when students drop out of school without a diploma, they are not only quitting on themselves but also on their country (Sum, Khatiwada, McLaughlin, & Palma, 2009). Those students who do not graduate from high school are more likely to commit crimes, live in poverty, receive public assistance, become divorced, and be unemployed (Bridgeland et al., 2006). In 2000, the Census Bureau found the estimated average income of a high school dropout was \$12,400 while the high school graduate averaged \$21,000 a year (Christle, Jolivet, & Nelson, 2007). Dropouts are eight times more likely to go to prison than those students who graduate from high school (Bridgeland et al., 2006). Currently, 86% of the Georgia

prison population did not graduate from high school (Georgia Department of Education, 2008). Students dropping out of school have become a national issue of importance for society and students (Christle, et al., 2007).

Theoretical Framework

The social learning theory is the foundation for the study of the middle school graduation coach. Many theorists such as Albert Bandura, Carole Ames, and Carol Dweck, felt that when people set goals, they were likely to reach their desired outcomes. When a person reaches his goals he achieves a higher self-efficacy, which is the person's belief in his ability to succeed in specific situations (Bandura, 1989). Bandura 1989) thought that people's ideas of efficacy had an influence over the scenarios they created and repeated. When people felt they had a high level of efficacy, they tended to visualize themselves in successful situations and had a positive guide for performance (Bandura, 1989). However, when people saw themselves as ineffectual, they undermined their own performance and had a weakened level of performance. A connection has been found to exist between a teacher's feeling of efficacy and a student's own feeling of efficacy, motivation, and increased achievement (Bridgeland, Balfanz, Moore, & Fright, 2010). The personal attention and encouragement strategies used by the graduation coach with at-risk students were the most effective in developing efficacy and personal value in these students (Georgia Department of Education, 2008).

The achievement goal theory refers to the reasons why a person pursues an achievement task (Pintrich, 2000). This theory is related to the social learning theory that presumes that students are usually mastery-goal centered or performance-goal oriented. Carole Ames (1992) found that mastery-goal centered students usually have the intrinsic

motivation to complete challenging tasks with enthusiasm and students often feel a sense of guilt if they put forth inadequate effort. Evidence has shown that students who are mastery-goal oriented have higher levels of achievement in subject areas such as science and English (Covington, 2000). Mastery-goal oriented students' sense of efficacy comes from the belief that hard work will lead to a sense of mastery and success (Ames, 1992).

Students who are performance-goal oriented often feel their self-worth comes from how well they achieve a desired goal (Ames, 1992). These students often avoid challenging tasks that they see may have set them up for failure and often have feelings of anxiety, boredom, and negative self-cognition (Ames, 1992). The performance-goal oriented student usually tries to outperform other students to increase his own ability status at his peer's expense (Covington, 2000). Unfortunately, research has shown that students in middle school are more performance goal oriented because the middle school classroom tends to emphasize more performance goal-oriented activities (Anderman & Midgley, 1997).

Dweck and Leggett (1988) suggested that the goals individuals created were based on how they interpreted and reacted to events. The two types of goals that were found to exist were performance goals, which were created by performance-goal oriented students, and learning goals, which were created by goal-oriented students. Performance goals were usually created by those individuals who were interested in gaining favorable judgments from their ability (Dweck & Leggett, 1988). The students who created performance goals and failed tended to show a decline in their academic performance over time (Dweck & Leggett, 1988). In contrast, learning goals were created by those

individuals who were interested in gaining ability, and those students sought challenges and focused on mastery through effort and strategy (Dweck & Leggett, 1988).

The social learning theory and achievement goal theories best correlate to the research design of this study. One of the main responsibilities of the graduation coach is to help the at-risk students set goals. The at-risk students have usually failed in so many areas that they have lost their motivation to do well. These students need to set goals and achieve success so that they can build their own self-efficacy. When students set short term goals they need to be monitored frequently for accomplishment recognition. The long term academic goal set by the middle school graduation coach and the at-risk students is that the students develop the intrinsic motivation to achieve to their fullest potential.

Transition to Middle School

Various investigators have stressed how crucial the early adolescent years are for development but worry about student motivation after the students make the transition into middle school. This is a time when the self-esteem of adolescents becomes lower and less stable while their self-consciousness increases (Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991). According to Balfanz, et al. (2007), students at the middle school level are the underperformers of the educational system. Middle school is a time period in their education when students have the ability to close achievement gaps and prepare to enter high school. However, middle school is also a time when student achievement gaps can widen and students enter high school without being truly prepared (Balfanz, 2009). Recent reform efforts have been designed to make the middle school

grades a more personalized, caring, and supportive learning environment (Dickinson, 2001).

According to student perception, the largest decline in the quality of school life occurs with the transition from elementary to middle school (Schumacher, 1998). Anderman and Maehr (1994) found that especially during the sixth and seventh grades, students' feelings about their abilities, attitudes toward school, and their levels of motivation decreased. They discovered that the students' attitudes towards specific academic areas such as science, math, and art also decreased at this time. Anderman and Midgley (1997) found that students' grades tended to decrease once they entered middle school even though there was no decrease in the students' IQ level or achievement test scores.

Between the 6th and 7th grades, characteristics of intrinsic motivation were found to drop sharply in a student's desire for independent mastery and challenge (Eccles et al., 1993). Anderman and Maehr (1994) found that as students moved to the middle school level they were likely to experience a school environment where relative ability became the area of focus and students were afraid to fail. Rather than to be thought of as "dumb" after trying and failing, some middle school students lost their motivation to try at all when they knew they could not compete academically (Anderman & Maehr, 1994). Eccles and her colleagues (1993) felt that the declines that occurred with the transition to middle school were tied to the change in the educational setting that was experienced by adolescents when moved from elementary to middle school.

The transition to middle school "is accompanied by intellectual, moral, social, emotional, and physical changes taking place in at least part of the transition group at any

given time” (Schumacher, 1998, para.7). When a student’s difficulties are found to last longer than a single grading period or when a long-term pattern begins to occur in problematic behaviors or poor school performance, the time has come for teachers and parents to intervene (Robertson, 1997). These students need assistance before, during, and after the transition period so that students’ psychological, academic, and social well-being is not put at risk (Schumacher, 1998). When students evaluated their transition years, they requested more information about study skills, extracurricular activities, and class schedules, and they showed an interest in how to better connect to their school (Robertson, 1997).

Periods of transition are major events in students’ lives, but the stresses related to transitions can be lowered when characteristics of the new environment are sensitive to the specific age group. When elementary students were asked what worried them about the transition to middle school, most boys and girls had concerns about social issues while the remainder of students was concerned with a mix of procedural and academic issues (Koppang, 2004). According to Schumacher (1998), a productive transition program would help respond to the needs and concerns of the student, build a sense of community, and provide appropriate approaches to make the process of transition easier. Schumacher (1998) found that middle school transition programs were effective if they responded to the needs of students as they entered the middle school and if the people involved developed a meaningful role and maintained that role during the transition process. Jackson and Davis (2000) found that connecting students to adults and school personalization were significant contributors to student success when the personalization and connection began before the students entered middle school. The students were more

successful in dealing with the transition to middle school when the environment around them provided support (Koppang, 2004). Minimizing the stress involved with the transition from elementary to middle school and from middle to high school is one of many ways to prevent students from becoming disengaged from school and eventually dropping out before reaching graduation.

Dropouts

Dropouts have cited many different reasons for their disengagement from school, and the conclusion can be made that those students who dropout from school display a variety of social and personal characteristics (Rumberger, 1987). When students drop out of school, a surprising or sudden event has usually not occurred. Approximately 80% of dropouts follow an observable path through their education that shows disengagement and difficulty often before the student reaches the tenth grade (Craig, 2007). Students could be divided into two subgroups that followed different paths to eventually drop out of school. Students who exited school between the seventh and ninth grade were known as *early dropouts* while students who dropped out of school between tenth and twelfth grade were known as *later dropouts* (Craig, 2007). Predictors such as low grades and poor attendance could be seen in early dropouts when they were in elementary school, however predictors for later dropouts did not show up until the students were in middle or high school (Craig, 2007).

Janosz, et al. (2000), discovered that school dropouts fell in one of four categories. The first group was labeled the *quiet dropout*. These students showed no evidence of behavior problems and had average to high levels of commitment to their education. The quiet dropout typically had lower achievement grades than those students

who graduated from high school. The second group was the *disengaged dropout* who also had few behavior problems and average grades when compared to the average high school student, but was not very committed to school. The third group consisted of the *low-achieving dropouts* who had few behavior problems, but they also had little commitment to their education and had low grades. The final group was the *maladjusted dropout* which had a high level of behavior problems, low grades, and low commitment to school. The study found that 77% to 85% of the dropouts studied fell in the quiet or maladjusted categories (Janosz, et al., 2000). Dropouts do not necessarily form a homogenous group, and it is unlikely that all dropouts share the same school, family, and social experiences that have led them down the same path of not graduating from high school (Rumberger, 1987).

School disengagement is a major reason for students to drop out of school. It is described as the level to which students are committed, involved, and connected to school and are motivated to achieve and learn (Simon-Morton & Chen, 2009). Craig (2007) found that those students who did not become involved in school by paying attention, showing up, and following the rules were more likely to fail academically. The Bill and Melinda Gates Foundation found that the dropouts they interviewed left school for five major reasons: boredom with school, inability to catch up on missed assignments after absenteeism, their friends were disinterested in school, lack of rules and too much freedom, and failing academically (Bridgeland, et al., 2010). Balfanz et al. (2007) found through the work of predicting future dropouts that even though students had different reasons for becoming disengaged from school, two paths clearly arose: one dealing with misbehavior or dislike of school and one dealing with academic trouble and failure.

Students who lost interest in school discussed how they hit a downward spiral of failure which led to prolonged absence from school, taking part in risky behaviors, drug and alcohol abuse, and becoming a member of a sub-culture that feels dropping out of school is cool (Bridgeland, et al., 2010). Alexander, Entwisle, and Kabban (2001) found that the impact of risk factors varied depending on when they occurred in the student's life.

Jordan, Lara, and McPartland (1996) found that two areas influence dropouts: push and pull effects. The push effects are characteristics within the school that have a negative impact on the connection that adolescents make with their school environment (Jordan et al., 1996). This feeling of rejection stems from how the school deals with absenteeism, disruptive behavior, and lack of academic effort. When students receive failing grades or suspension due to these behaviors, many feel they are incapable of succeeding in school (Jordan, et al., 1996). Pull effects are the factors such as caring for family members, pregnancy, and need to hold a job that pull the student away from school and may eventually lead the student to drop out from school (Jordan, et al., 1996).

Dropout Indicators

Balfanz (2009) found that the earlier in school that students tended to establish off-track indicators, their graduation odds appeared to be lower. Garriott (2007) discovered that as early as the sixth grade, there were four factors that may have led to students dropping out of school: behavior problems, failing grades in math, failing grades in English, or poor attendance. Research has shown that these indicators have predicted up to 60% of those students who did not graduate from high school on time (Garriott, 2007). One predictor of a future dropout might be if a student failed a course during middle school because failing a class could cause a student to be less engaged in

school (Balfanz, et al., 2007). Early intervention is important because research showed that the sixth grade students who were targeted as potential dropouts had only one or two risk factors, when at-risk high school students required more intervention because they demonstrated three or four of the risk factors for dropping out of school (Garriott, 2007). Balfanz (2009) found that the sixth grade students who showed signs of falling off the path to graduation usually stayed in school at least five additional years. The extra years in school allowed time for intervention so that the student might be motivated to succeed in school (Balfanz, 2009).

Poor attendance is also a key predictor of students dropping out of school before graduation. The Bill and Melinda Gates Foundation found that absenteeism was a significant warning sign of a student dropping out of school and was also a key indicator of student disengagement in school (Bridgeland, et al., 2006). After academic achievement, the school attendance rate showed the most powerful relationship of students not graduating from high school (Christle, et al., 2007). Those school districts that were found to have low graduation rates were also found to have chronic absenteeism at the middle school level (Balfanz, 2009). When students were in middle school they discovered that if they were absent from class there were very few if any repercussions (Balfanz, 2009).

According to Garriott (2007), sixth graders who were absent at least 17% of the year were 80% less likely to graduate on time. These excessive absences could have stemmed from a variety of reasons which might include disinterest in their education, medical conditions, or the inability to find transportation to school. Nichols' (2003) research demonstrated that those students who averaged 10 absences a year had a strong

correlation with poor math and English achievement. Nichols (2003) found that students with excessive absences had a history of poor achievement mainly because of their lack of interest in school and their inability to complete their make-up work after being absent. According to Roderick (1993), when students had a significant rise in absenteeism (a ten day or more increase over elementary school), they were more likely than low-achieving students not to graduate.

Another key dropout indicator was when students failed the subjects of math or English. Eccles, Wigfield, Midgley, Reuman, MacIver, and Feldlaufer (1993) found that students' belief in their personal ability levels regarding math and English showed the largest decline from the sixth grade year to the fall of the seventh grade year. Course failure was a better predictor of students dropping out of school than standardized test scores (Garriott, 2007). Course grades were found to be more sensitive to the student's effort and attendance over time (Balfanz, 2009).

Nichols (2003) found that students with poor standardized testing skills had not led teachers to have an accurate picture of a low socio-economic student's true abilities because norm-referenced tests were not matched well with these students' experiences when they were outside of the classroom. Usually only the standardized test scores that fell below the 15th percentile that were predictive of potential dropouts (Balfanz, 2009). Nichols (2003) also found that the students who did not do well on standardized tests as early as the third grade were the same students who did poorly in the tenth grade.

When students were retained at any time between kindergarten through the ninth grade, they were less likely to reach graduation. Approximately 61% of ninth grade dropouts had been retained at some point in their school career (Sparks, Johnson, &

Akos, 2010). Sparks et al. (2010) also found that 42% of the dropouts had failed the English portion of ninth grade standardized tests.

When looking at behavior as a dropout indicator, Garriott (2007) found that 71% of students who received out-of-school suspension rarely graduated on time. Approximately one-third of dropouts in the ninth grade had been suspended from school for more than 10 days when they were in the eighth or ninth grade (Sparks, et al., 2010). These students did poorly in school and had poor final grades because they missed several days of class time due to their out-of-school suspension. Ensminger and Slusarick (1992) found that seventh grade students who were shown to be at risk for dropping out of school had high levels of aggression and low levels of academic performance. This early aggressive behavior often led to confrontation with teachers and administrators. If an intervention plan was not developed for these students, they continued to misbehave and eventually alienated themselves from the school environment. Misbehavior was also found to lead to delinquency and drug use as the child became older (Ensminger & Slusarick, 1992). Balfanz, et al. (2007), found that most at-risk students only had one risk factor. When students had two risk factors, they were usually a combination of misbehavior and the failure of English or math (Balfanz, et al. 2007).

The majority of students in the middle grades, who developed off-path indicators, did so in the sixth grade (Balfanz, et al., 2007). The evidence showed that without some type of intervention, those struggling middle school students would not succeed in school. The behavioral at-risk student usually had little impulse control and was more likely to become agitated or disappointed by various events. These students did not have

the ability to fully comprehend the consequences of their actions before making them (Georgia Graduation, 2008). Scott (2005) found that students who were unable to understand cause and effect relationships were less successful in school and had created negative perceptions of their teachers. These students did not have the ability to see how their actions contributed to adverse interactions and the students developed a negative reflection of themselves and felt they were unable to succeed in school (Scott, 2005). Students with behavioral problems also had a hard time grasping long-term goals, such as the affects of dropping out of school, and these students needed constant feedback and reminders of their goals (Georgia Graduation, 2008).

Discipline issues can also have an impact on students' attendance in the classroom. Many times the underlying reason students are absent from class is due to the time they spend in the principal's office or how many days are spent in out-of-school or in-school suspension (Georgia Department of Education, 2008). Discipline-related absences can be detrimental to a student's success in the classroom if the existing problems cannot be resolved (Georgia Department of Education, 2008). Garriott (2007) found that the likelihood of students graduating from school continued to decrease with the number of out-of-school suspensions they received. Christle, et al. (2007) found that the schools that relied heavily on the discipline practice of suspension were actually supporting a failure cycle. Those students who were excluded from school had fewer chances to learn appropriate social behaviors and enhance their academic skills (Christle, et al., 2007). Even less serious misbehaviors such as talking back in class, not completing assignments, and not paying attention were also found to be predictors of students falling off the path to graduation (Garriott, 2007).

Parental Involvement and the At-Risk Student

Many times the at-risk student's problems were not part of the school environment. There were circumstances that counselors and teachers were not aware of that were occurring at home. The Georgia Graduation Coach Training Manual (2006) stated that a large percentage of students came from one or more of the following backgrounds: poor achievement was a part of the family history, a single parent household, families of low socio-economic levels or homes where English was a second language. Students who came from families of a low-socioeconomic status were 2.4 times more likely than students from middle-income families to drop out of high school before reaching graduation (Christle, et al., 2007). The early adolescent years are found to be a time of transition in social influence, in which the influences of peers begin to increase and the influence of parents on behavior tend to decline in importance (Georgia Graduation, 2006).

Downing and Harrison (1990) discovered that the odds of a student dropping out of school increased significantly when a student came from a family that did not provide a necessary support system on a regular basis. Simons-Morton and Chen (2009) found that during the middle school years parental involvement declined, even though parental involvement had been associated with middle school students' achievement, engagement, and educational aspirations. When schools involved the parents in the transition to middle school process, the parents were more likely to stay involved in the student's education throughout middle school (MacIver, 1990). Achievement effects have been shown to be more beneficial when parents were intensely involved in the education of their children (What Research Says, 2002). The United States Department of Education

found that when members of the family were involved in their child's education, the students showed an improvement in attitude, attendance, grades, standardized test scores, and completion of homework (Bridgeland, et al., 2006).

Services for At-Risk Students

When student disengagement from school seemed to stem from the school environment, educators found it was important to identify at-risk students during their early middle school years and intervene immediately (Balfanz, et al., 2007). Finn (1989) outlined three components of alternative programs for at-risk students. The organizational component involved providing a low student-teacher ratio, staff in-service on strategies to help at-risk students, programs to help the different types of dropouts, and a discipline policy which allowed for the flexibility in attendance and alternatives to suspension (Finn, 1989). The organizational component was mainly led by the school's administration. The instructional component involved: projects to improve attendance, cooperative learning, a wide range of instructional strategies, peer tutoring, and career development for future employment (Finn, 1989). The instructional component was usually administered by the school staff that worked directly with the at-risk students. The third area was the interpersonal component that helped to develop the self-esteem and confidence levels of the student by doing the following: providing a supportive climate to meet the student's needs, counseling, improving of a student's self-esteem and positive attitude toward school, and developing a sense of community within the school to foster a student's identification with the school (Finn, 1989).

Finn and Rock (1997) found that if a student developed a positive self-view and was able to constantly exhibit positive behaviors such as finishing school work, attending

school regularly, and participating in extracurricular activities, he may be able to have success in school despite being a member of an at-risk group. One of the most important reforms needed at the middle and high school level was to provide a community of support and caring for young people where they would have a feeling of safety, trust in others, and a sense of belonging (Osterman, 2000). Children who felt a sense of attachment to school and developed a commitment to succeed were found to be more successful academically (Battin-Pearson, Abbott, Hill, Catalano, Hawkins, & Newcomb, 2000). Eighth grade students were found to have lower dropout rates when they took part in extracurricular programs that focused on supporting achievement and promoting resiliency rather than programs that only focused on below grade level students (Sparks, et al., 2010). When students were academically successful, they were less likely to drop out of school before graduation. Educators found it important to comprehend the relationship between students developing a connection with their school and dropping out of high school (Battin-Pearson, et al., 2000).

When developing interventions to focus on the at-risk student, several steps are needed to lead them towards graduation. Studies have shown that methods specifically focused on attendance and behavior need to be included in the intervention model in order to keep students engaged in school (Balfanz, et al., 2007). According to Schumacher (1998), emphasizing improvement and mastery of information, was more important than social comparison and relative ability. Schumaker (1998) found that middle schools actually stressed competition and relative ability between students more than improvement and effort which led to the decline of ability goals, task goals, and academic efficacy in the middle schools. Anderman and Maehr's (1994) research

showed that a more positive, task-focused goal structure could be created by focusing on improvements and effort, working in groups, and giving students choices.

Balfanz, et al. (2007) found a common set of effective strategies that could be used to improve the behavior and attendance of students. The first strategy was to recognize, promote, and model good attendance and positive behavior (Balfanz, et al., 2007). The second strategy was to be consistent in the response to absences and misbehavior (Balfanz, et al., 2007). The third step was to develop simple analysis and data collection tools to enable administrators and teachers to identify which, where, and when students did not attend school or misbehave (Balfanz, et al., 2007). The final step was to create behavior and attendance teams composed of administrators, counselors, teachers, and occasionally parents who met regularly to analyze data and devise solutions to problems (Balfanz, et al., 2007).

Advisor Programs

Another way to provide services to at-risk students is through advisor and mentoring programs. Scott (2005) found that dropouts were not able to identify a single teacher they could approach for help and felt that there were no adults in the school building that cared about them. Gallassi and Gullede (1997) found evidence that there was a positive relationship between students' academic performance and their relationships with teachers and students. The basic idea behind advisory programs was to set aside a time when a caring adult could work with a small group of students and provide a support structure (Wilson, 1998). Linking disenfranchised youth with adult mentors helped to build supportive, healthy relationships (Young, 2008). Sparks et al. (2010) found when an adult had 10 positive contacts with a noncompliant student, he was

able to change the student's attitude and win his trust. An effective tool that has been identified in dropout prevention is mentoring. The mentor's ongoing support has been found to be invaluable when keeping students focused academically and on the right path to graduate on time (Young, 2008). Dropout rates were found to drop nearly in half when schools had teachers who were found to be highly supportive of their students (Craig, 2007).

Transescent students are those who are at the stage of development that ranges from the beginning of puberty through the first stages of adolescence (Gallassi & Gullede, 1997). Supportive adult attention has been found to be crucial at this time in a student's life (Gallassi & Gullede, 1997). Advisory programs allow students to build a supportive relationship with an adult at a time when they are going through a variety of emotional, physical, and social changes (Gallassi & Gullede, 1997). The National Middle School Association felt the use of adult advocates should become a central part of the school's culture because it was the "attitude of caring that translates into action when adults are responsive to the needs of each and every young adolescent in their charge" (Bridgeland, et al., 2006, p. 15). Wilson (1998) found that a young adolescent was less likely to fall through the cracks when he had a caring environment where an adult continuously checked on him.

Early adolescent students were found to be more vulnerable to negative influences because they were working to find connections to the world that were not related to their families (Gallassi & Gullede, 1997). Students who participated in programs such as work-study, job shadowing, and service-learning that showed a relationship between school and career were more likely to "achieve higher levels of educational attainment

and better labor market outcomes” (Bridgeland, et al., 2010, p. 15). When advisory programs helped students build relationships and connectedness in varieties of contexts, they also helped the students to find support, safety, and encouragement within their schools (Gallassi & Gullede, 1997).

The Graduation Coach Initiative

Balfanz, et al. (2007), found that the strategies that were the most effective in reaching a student who was unresponsive, usually required assigning him a specific adult who had the responsibility of shepherding the student by checking on him daily and giving him feedback immediately, building a close, personal relationship with him, and finding the sources of student engagement from school. Ryan and Patrick (2001) found that non-parental adults were found to be especially important sources of support and were role models to young adolescents. There were no strategies or methods more powerful in reducing the number of high school dropouts than overcoming poor relationships. Students were more likely to look forward to attending school rather than avoiding it when schools created positive relationships between staff members and students (Scott, 2005).

In 2006, Governor Sonny Perdue of Georgia established a new program that placed a graduation coach in each of the state’s public high schools. If Georgia’s students were going to reach the No Child Left Behind mandate of a 100% graduation rate by the year 2014, the Governor was going to have to make major changes (Georgia Graduation Coach Incentive, 2008). Jacobson (2006) reported that the state of Georgia budgeted \$15 billion dollars for the 2006-2007 school year to pay full-time employees on

staff to identify the at-risk students in schools and devise plans to help students graduate from high school.

The Georgia Department of Education partnered with Communities in Schools (CIS) to provide support and professional learning programs for the state's graduation coaches. CIS of Georgia is an organization dedicated to ending the problem of school dropouts by unifying the resources of the school's community to address educational hurdles (Georgia Graduation, 2008). The services provided by the CIS of Georgia include: providing initiatives for the whole school, sustaining services for students needing ongoing support to help them succeed in school, and providing short term services for students with immediate needs (Georgia Graduation, 2008).

Jacobson (2007) found that Georgia's graduation rate rose over one percentage point to 72.3 for the 2006-2007 school year, which was up from 70.8 for the 2005-2006 school year. The state's number of dropouts fell from 23,000 to 21,000 students statewide, which was a ten percent decrease (Jacobson, 2007). This occurred even after the 2006-2007 school year saw a population increase of 9,000 students, which brought the Georgia student population up to 446,500 students (Jacobson, 2007).

Governor Perdue decided that since the high school graduation coaches had been so successful and since struggling students were dropping out even before they reached high school, he would place a graduation coach in every middle school by the 2008-2009 school year (Jacobson, 2007). Balfanz and West (2009) found that there were a approximately 1.2 million ninth-grade students in the United States who were in need of additional support to help them graduate from high school. In 2006, The Georgia

Department of Education developed the following mission statement for the High School Graduation Coach Initiative:

The mission of the Georgia Graduation Coach Initiative is to ensure the successful transition of all students from middle to high school and from high school into post-secondary education or the workforce. Graduation coaches provide a comprehensive prevention and intervention program for students at risk of grade retention, and/or dropping out. The role of the graduation coach is to identify students in need of additional support and work with them to achieve academic success. Coaches work to ensure that all identified students receive the resources and services needed to guide them on the path to graduation. (Georgia Graduation, 2008, p. A-9)

Hargreaves, Earl, and Ryan (1996) found that in order to decrease the number of dropouts, the key was to create schools that provided supportive and caring communities for their students. When students were left to “figure it out or take responsibility,” they were more likely to fall into a deeper failure cycle (Robertson, 1997). Balfanz, et al. (2007) found that unresponsive students could be effectively reached when a specified adult was assigned to them. This specific adult would be responsible for shepherding the students by checking on them daily, building a close personal relationship with the students, and finding ways they could become more engaged in school. Successful relationships between the adult and student needed to begin with a climate of compassion and respect (Scott, 2005). If students have been excessively absent, an adult should call the students when they did not come to school and ask why they were absent.

The graduation coach is not normally expected to be involved with disciplinary issues; however, she should be proactive if students on their caseload have discipline problems (Georgia Department of Education, 2008). The graduation coach may also use shepherding techniques with the students who have behavior problems by having them complete a behavioral checklist each day and reward them for good behavior (Balfanz, et al., 2007). An open-door policy between the student and graduation coach may help students to solve emotionally-charged situations (Georgia Department of Education, 2008). The Georgia Graduation Coach Initiative (Georgia Department of Education, 2008) indicated that students found success in controlling and correcting their behavior when they have met consistently with the graduation coach.

Before a graduation coach can be successful, she must develop a positive relationship with her students. The social support of teachers and the degree to which students feel liked by their teachers, have shown to have a positive influence on academic achievements (Wentzel, 1994). Many times those students who possess risk factors that endanger them of dropping out of school need reliable role models for success in school and life (Georgia Department of Education, 2008). Students will be more likely to work for someone they like and respect. The graduation coach needs to make sure she takes the time to get to know her students, keep a positive attitude, maintain a calm, professional presence, and have a sense of humor (Georgia Graduation, 2008).

Graduation coaches have reported that some of their roles include being encouragers, role models, and persons the student wants to emulate (Georgia Department of Education, 2008). Students should be able to relate to graduation coaches and feel comfortable when they are around the coaches. The graduation coaches might mentor

students by interacting with them frequently in the halls, at extracurricular activities, and in the cafeteria (Georgia Department of Education, 2008).

The Georgia Graduation Coach Initiative (2008) stated that a large part of the graduation coach's time was spent tutoring students who were in danger of academic failure. Graduation coaches reported that they spent between 93% and 97% of their time assisting students in the classes where they were currently experiencing difficulty (Georgia Department of Education, 2008). Course work failure was found to be the hardest area to remedy due to the fact that if a student received a poor education in elementary grades they were poorly prepared for the secondary curriculum which was much more demanding (Jordan, et al., 1996). Students who were found to be academically at-risk had a difficult time demonstrating proficiency on necessary assessments such as the Georgia End-of-Course Tests (EOCTs) and the eighth grade Georgia Criterion Referenced Competency Test. The coaches had to work to remediate these students throughout the school year and worked to increase the number of students who passed the tests the first time (Georgia Department of Education, 2008). The graduation coaches worked with students in individual sessions to help keep them academically focused, while monitoring students' progress and performance. At-risk students were found to benefit from being taught study skills such as strategies for completing assignments and note-taking techniques and social skills such as conflict resolution and how to work cooperatively with other students (Balfanz, 2009).

The middle school years are a time when the middle school graduation coach needs to work closely with the elementary feeder schools to make sure the students have a smooth transition into middle school. Wentzel (1994) found that the transition from

elementary school is marked by the students feeling teachers do not care about them anymore, levels of mistrust rise between students and teachers, and students do not have as many chances to create meaningful relationships with their teachers. The graduation coach can help ease the transition by using strategies such as student-to-student mentoring, advisory sessions, study skills groups, and orientation guides (Georgia Graduation, 2008). During regular transition meetings with students, the graduation coach can discuss class schedules, take part in various extracurricular activities, set up meetings with future teachers, and tour the school (Georgia Department of Education, 2008).

The middle school graduation coach can also work to make a smoother transition process from the middle school to high school. A high school transition program could include activities to help provide social support for the students during the transition, provide parents and students with information about the high school, and bring the high school and high school personnel together to become familiar with each other's curriculum and requirements (MacIver, 1990). MacIver (1990) found that those students in middle school who were involved in high school transition programs were not as likely to be retained at the end of their ninth grade year. When students were in middle school they were curious about high school activities and it was beneficial that they learn about the procedures and programs offered at the high school level before they entered the ninth grade. Helpful transition activities that the middle school graduation coach could use to help prepare individual students for the high school transition also included: providing an opportunity to shadow a high school student, scheduling visits to the high school, and educating the students about the long-term effects of course decisions (Mizelle, 1999).

Downing and Harrison (1990) found that the “Small Wins” mindset focused on small social and academic achievements that would lead to the larger victory of completing school. This mindset was important for the at-risk student who had a hard time focusing on his long-term future. The Georgia Graduation Coach Training Manual (2008) indicated that the ability of a person to reach his short-term and long-term goals depended on the strength of the person’s coping skills. Additionally, students found goals to be more beneficial when they could see how their core of academic classes could be tied to the real world by introducing technical and career courses to students as early as ninth grade (Southern Regional Education Board, 2005).

Identifying the At-Risk Student

The Georgia Department of Education added the Graduation Coach Work Management System during the 2007-2008 school year, which allowed graduation coaches to identify the students who were at risk of not graduating from high school (Georgia Department of Education, 2008). The graduation coach was able to pull a roster of all the students in the school and their risk ratio from the National Dropout Prevention Network. The risk ratio was calculated based on factors such as retention, attendance, and standardized test scores. The closer the student’s risk ratio was to 1 the more the student was assumed to be at-risk for not graduating from high school Georgia Graduation Coach Initiative, 2008). The information regarding the risk ration could then be used to coordinate services, devise interventions, and prioritize assistance for the at-risk students (Georgia Department of Education, 2008). Treatment of at-risk students could be provided in individual, small group, large group, and whole group settings.

Figure 2.1 shows the percentage of time the graduation coach usually spent in each setting during the 2007-2008 school year.

Figure 2.1. Service Session Emphasis by Setting

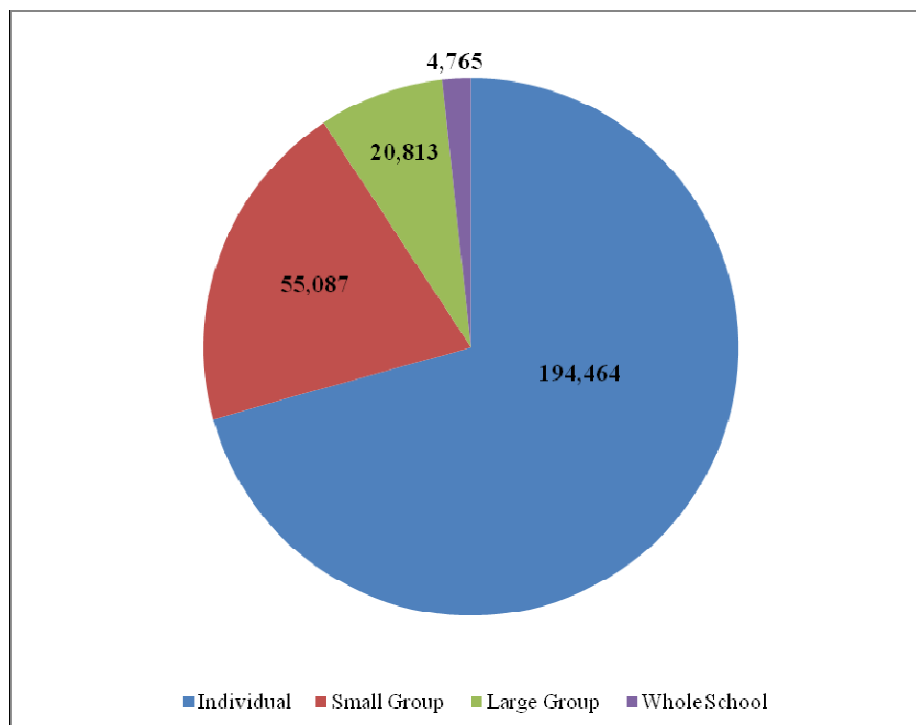


Figure 2.1 – Visual representation of how much time the average graduation coach spends in various educational settings. Adapted from “*Georgia Graduation Coach Initiative*”, 2008, Georgia Department of Education, p. 11).

Graduation Coach Strategies

The first step the graduation coach could take would be to help students keep sight of the big picture would be to constantly remind them of their overall goal of being promoted to high school so that they would eventually reach graduation (Georgia Graduation, 2008). Balfanz (2009) found that middle school students need to be taught that positive behavior is desired and will be recognized, life success will come from hard work, and effort must be applied if the student is to succeed. Many potential dropouts

have learned through their experiences that negative behavior is what gets attention, school is something that must be endured, and barely passing a class is acceptable for students (Balfanz, 2009). Students who have been targeted as being at-risk of dropping out of school often feel abandoned by the school culture and they require guidance in helping them to find success (Georgia Graduation, 2008).

The next step would be to increase achievement and the self-image of the student, which could be achieved by recognizing small accomplishments such as a good grade on a midterm or perfect attendance for a small, specified item. The graduation coach also needs to provide the at-risk student with guidance in choosing appropriate classes each semester and consistent updates on their grades to help lead the student to graduation (Georgia Graduation, 2008).

Once the at-risk students have been identified within a school, the graduation coach needs to set up a team approach for working with at-risk students. The responsibility is too much for one person to be in charge of stopping all potential dropouts. In order for the team approach to be successful in providing support for the at-risk student, all members involved (teachers, advisors, administrators, social workers, and counselors) must be included in the development of practices, policies, evaluations, and implementations (Georgia Graduation, 2008). This was important because Wentzel (1994) found that when there was a stronger focus on the relationships of teachers and students during the middle school years, there were less social behavior problems and increased levels of motivation by adolescents. The graduation coach served as the mediator between the student and the school. Constant communication must occur between the teacher, graduation coach, and the administration.

Mizelle (1999) found the relationship between the graduation coach and the parents of the at-risk student to be very important. Mizelle's (1999) research showed that parents who were involved with their student's school experience and stayed involved as their student transitioned to middle and high school would lead to the students adjusting better, making better grades, and staying in school. Although the at-risk student may not want their parents to be involved, the graduation coach should encourage the parents not to drop their level of support (Georgia Graduation, 2008). The absence of parental involvement could lead to a decrease in intrinsic motivation (Osterman, 2000). Positive parent practices have been proven to protect adolescents from substance abuse and promote school achievement and adjustment (Simons-Morton & Chen, 2009).

The following were strategies the graduation coach could use to encourage parental involvement: make parents feel welcome when they visit the school, invite parents to take part in summer transition programs, and maintain communication with the parents of students who are attendance problems (Georgia Graduation, 2008). Constant positive communication needs to take place with the parent as much as with the student. Eighty-five percent of the Georgia graduation coaches reported that they used parent meetings to work with those parents who felt there was little hope for their child's graduation from high school (Georgia Department of Education, 2008). Koppang (2004) found that when parents were involved in their student's education, the students achieved more, regardless of parents' level of education, race, or socioeconomic status.

Georgia and No Child Left Behind

Under the No Child Left Behind Act, adequate yearly progress (AYP) was used by individual states to measure the goal of 100 percent of a school's students reaching

academic standards in at least math and reading/language arts by the 2013-2014 school year (No Child, 2008). In order for a school to make AYP in the state of Georgia, it must meet criteria in the areas of academic performance, test participation, and a second indicator (Frequently Asked, 2003). In the area of academic performance, the school must meet annual measurable objectives (AMO) in the areas of math and language arts and reading, combined on the Criterion Referenced Competency Test (CRCT) or the Georgia High School Graduation Test (GHSGT). In order to achieve test participation requirements, at least 95% of the school's enrolled students must take the test. Finally, a school must make progress on a second indicator. The second indicator for grades three through eight is that the percentage of students missing fifteen or more days is less than 15%. The second indicator for grades nine through twelve is that the graduation rate must be above the present level of sixty percent or it must show improvement over the previous year (Frequently Asked, 2003).

The No Child Left Behind Act allows the high school graduation targets to be set by the states and not the federal government. In the past, there were two methods used to report the dropout rate. The event dropout rate was found by figuring out how many students left school during a particular year (Christle, et al., 2007). The status dropout was found by figuring out how many students in a specific age group left school (Christle, et al., 2007). Under No Child Left Behind, the federal government created a way to calculate the estimated graduation rate that could be fairly applied to all states (Balfanz & West, 2009). The calculation was found "by dividing the total number of regular diplomas awarded in the cohort's on-time graduation year by an average of the eighth grade, ninth grade, and tenth grade enrollments of that cohort" (Balfanz & West,

2009, p. 4). This calculation demonstrated that the national graduation rate was closer to 75% rather than 90%, and that the rate was even lower for minority and poor students (Balfanz & West, 2009). The dropout rate is usually greater than what is actually reported because the national data does not include students under the age of 16, students below tenth grade, or those students who have been incarcerated (Christle, et al., 2007).

Libby Quaid (2008) reported that most states feel their low graduation rates are acceptable because they are able to show they have maintained a status quo or had an increase in their graduation rate. It is even acceptable in states such as Delaware and New Mexico to meet the graduation goal as long as the states maintained the current graduation rate, which was 76% in Delaware and 67% in New Mexico (Quaid, 2008). Currently, more than half of the nation's states do not have graduation targets of improvement (Quaid, 2008).

Summary

Governor Sonny Perdue of Georgia reported at the end of the 2007-2008 school year there were 18,859 students who had dropped out of school before reaching graduation (Diamond, 2008). This was a decline in the number of Georgia's high school dropouts by 10.6% or 2,241 students from the previous year (Diamond, 2008). Governor Purdue credited the success to the graduation coach positions that had been created in 2006. As the number of dropouts in Georgia decrease, the graduation rate would increase, giving the state the ability to compete in a global economy by increasing the educated workforce (Diamond, 2008). Over the course of a lifetime, a person who has not received a high school diploma will have made approximately \$300,000 less than an individual who graduated from high school (Southern Regional Education Board, 2005).

When graduation rates increase, the school systems will in turn be able to provide benefits for their communities, such as boosting the employment rate, saving the taxpayers money, reducing the crime rate, and expanding tax revenues (Craig, 2007).

Currently there are approximately 800 graduation coaches in Georgia's middle and high schools (Georgia Department of Education, 2008). During the 2007-2008 school year, the graduation coaches had documented almost 11 million hours spent working with students and 282,400 interventions had been put into place (Georgia Department of Education, 2008). "The term 'graduation coach' has come to represent a caring adult role model for thousands of students across the state of Georgia" (Georgia Department of Education, 2008, p. 3). A basic human desire is to feel a connection to other people (Scott, 2005). When students attended schools that were supportive and had personnel who promoted and cared about students' successes and individuality, they were more likely to graduate from high school (Christle, et al., 2007).

Chapter three discusses the methodology of the study including the design of the study, selection of the site and subjects, and procedures that will be used in the data analysis.

Chapter Three: Methodology

This chapter describes the methodology and procedures used to measure the effectiveness of the middle school graduation coach on the math and reading Georgia Criterion Referenced Competency Test scores and attendance of at-risk students. The first section of the methodology provides a description of the participants that were involved in the study. The second part of the chapter describes the instruments that were used to measure the effectiveness of the middle school graduation coach. The third section of the methodology discusses the procedures used to select the participants, administer the measures, and collect the needed data.

Overview

Due to the successful increase in graduation rates after implementing a graduation coach in every Georgia public high school, the governor of Georgia added a graduation coach to every middle school in the state by the 2008-2009 school year. The purpose of the middle school graduation coach is to work closely with the high school graduation coaches, by guiding students in the selection of their high school courses, informing parents and students regarding how grades in middle school affect high school placement, beginning to explore career options with students at an earlier age, and helping students to connect with the high school graduation coaches as they transfer to high school (Governor Purdue, 2007). The experiences students have in middle school have an impact on whether they will eventually graduate from high school and it is believed that the middle school graduation coach will help students reach this goal.

The middle school involved in the study hired its first graduation coach for the 2008-2009 school year. She worked with the Graduation Coach Work Management System and the school's teachers to develop a caseload of approximately fifty at-risk students. At-risk students were identified as those who were disengaged from school, had poor attendance, struggled academically, had frequent behavior issues, and had a history of school failure. The at-risk students received services from the graduation coach for the duration of the 2008-2009 school year. The students that the graduation coach targeted were usually not motivated to do well or behave in the classroom and many times the same students were not motivated to come to school. The graduation coach usually pulled the at-risk students out of class during non-instructional time. She helped the students complete their academic work by breaking it down into small segments and working with the students on a more individualized basis. The graduation coach also used a reward system for those students who came to school, behaved in class, and completed their homework and/or class work. If the students had their checklists successfully completed, they were rewarded with various prizes.

Design of the Study

A pretest posttest, nonrandomized control group was used in the design of this study. The students involved in the study were divided into two groups: those at-risk students who received services from the middle school graduation coach for one year (experimental group) and those at-risk students who did not receive any services from the middle school graduation coach. The experimental and control groups could not be chosen by random assignment because the subjects involved in the experimental group were chosen by the middle school graduation coach.

Statement of the Problem:

This study will determine if the graduation coach was effective in helping the sixth, seventh, and eighth grade at-risk students in a North Georgia middle school increase their math and reading Georgia Criterion Referenced Competency Test scores and attendance after one year of receiving services.

Research Questions

The study attempted to answer the following questions:

RQ₁: Does the use of a middle school graduation coach have an effect on the attendance of sixth, seventh, and eighth grade at-risk students?

H₁: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher attendance than the control group of students who do not.

RQ₂: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test math scores of sixth, seventh, and eighth grade at-risk students?

H₂: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test math scores than the control group of students who do not.

RQ₃: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test reading scores of sixth, seventh, and eighth grade at-risk students?

H₃: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test reading scores than the control group of students who do not.

RQ₄: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the female experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the female control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₄₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of female at-risk students who received services from the middle school graduation coach

H₄₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₃: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₄: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control

group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₅: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₆: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

RQ₅: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the male experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the male control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₅₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of male at-risk students who received services from the middle school graduation coach

H₅₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H_{5.3}: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of male at-risk students who receive services from the middle school graduation coach.

H_{5.4}: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H_{5.5}: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade experimental group of male at-risk students who receive services from the middle school graduation coach.

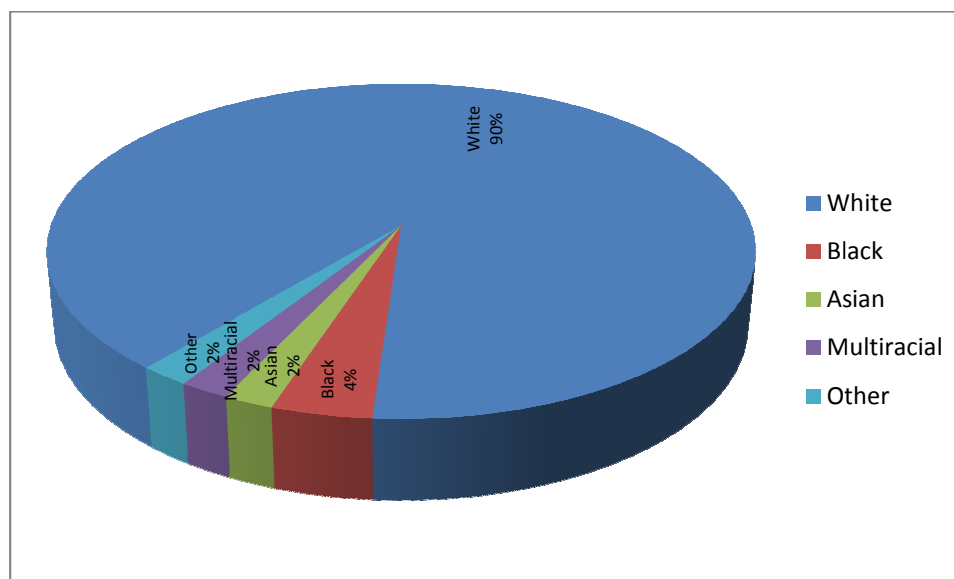
H_{5.6}: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

Site

The middle school involved in the study was a rural school located in northwestern Georgia. The total number of students enrolled in the middle school was approximately 750 students during the 2008-2009 school year. The ethnicity of the school included: 90% white, 4% black, 2% Asian, 2% multiracial, and 2% other races combined, as shown in Figure 3.1. The school had a low socio-economic status based on the approximately 60% of the school population that qualified for the free and reduced

lunch program. Fifteen percent of the school's population qualified for special education services and 1% of the population qualified for the English Learner program. The number of students who missed more than fifteen school days per year averaged 14% of the students.

Figure 3.1. Ethnicity of the North Georgia Middle School



Subjects

There were 466 students at the northwest Georgia middle school who were found to be at-risk for failure during the 2008-2009 school year. The risk ratio given to each student represents the degree that a student is determined to be at-risk for not graduating from high school such as attendance, grades, standardized test scores, retentions, ethnicity, and behavior (Georgia Department of Education, 2008). The risk ratio score ranges from 0 to 1, with 1 presenting the greatest risk of not graduating from high school

(Georgia Department of Education, 2008). Any student who had a risk ratio greater than 0 was labeled as an at-risk student. The middle school graduation coach chose the 46 students she provided services by using a combination of the National Dropout Prevention Network on the Georgia Department of Education's website and teacher recommendations. The students who received services from the middle school graduation coach were chosen after the graduation coach met with the academic teachers to find which at-risk students were in most need of treatment. The population involved in this study consisted of 11 at-risk sixth grade students, 19 seventh grade students, and 16 eighth grade students enrolled in the middle school for the 2008-2009 school year.

The students in the control group were chosen to closely match the characteristics of the students in the experimental group. The students who received services from the middle school graduation coach were matched with students who did not receive services in the areas of risk-ratio, gender, ethnicity, similar math and reading CRCT scores, and similar attendance rates. The experimental and control groups were each made up of 28 male students and 18 female students. Each group also contained the same number of students from each grade level: 11 sixth grade students, 19 seventh grade students, and 16 eighth grade students.

Table 3.1. Demographics of the Experimental and Control Groups

Demographic Information		
	<u>Experimental Group</u>	<u>Control Group</u>
6th Grade	11	11
7th Grade	19	19
8th Grade	16	16
Total # of Students	46	46
Male	28	28
Female	18	18

Although there was little diversity in this middle school, there was a small difference found between the two groups of students. Because of the small amount of diversity in the middle school, it was difficult to perfectly match the ethnicity of the students in the control group with the students in the experimental group.

Table 3.2. Ethnicity of the Experimental and Control Groups

Ethnicity Information		
	<u>Experimental Group</u>	<u>Control Group</u>
White	39	43
Black	3	2
Hispanic	3	1
Asian	1	0

The Graduation Coach

The middle school graduation coach involved in the study was the first person to hold this position at the school. She had graduated from college two years earlier with a

degree in psychology and this was her first time working in the field of education. The graduation coach worked closely with the school's guidance counselors and the graduation coaches from the surrounding middle and high schools in the area. She periodically checked in with the teachers of the at-risk students on her caseload to stay up to date on the students' progress.

Selection of Site

The middle school involved in the study reached Annual Yearly Progress (AYP) for the 2008-2009 school year, according to No Child Left Behind criteria. This meant that attendance rates and Georgia Criterion Reference Competency Test (CRCT) scores met the standards set by the state of Georgia. This site was chosen as an area of study because the school failed AYP for the 2004-2005 school year due to failing math CRCT scores and attendance problems. It has maintained AYP since 2005 while the areas of math and attendance have remained areas of concern. The graduation coach was put in place for the 2008-2009 school year to help improve grades, attendance, and behavior of the at-risk students.

Procedures

The CRCT was administered to the students during the spring of the 2007-2008 school year. The CRCT test was considered to be the pretest in the study. The math and reading CRCT scores and attendance records were collected on the at-risk students and the control group for the 2007-2008 school year.

At the beginning of the 2008-2009 school year, the middle school graduation coach targeted approximately 50 of the most at-risk students using the Graduation Coach Work Management System (WMS) Candidate Roster and referrals from the academic

teachers. The National Dropout Prevention Network identified potential dropouts by focusing on the following characteristics: attendance problems, history of school retention or failure, receiving special education services, low CRCT scores in the areas of reading and math, behavior problems, family risk factors, and disengagement from school (Georgia Graduation, 2008). The program then gave each student a risk-ratio. It was assumed that the closer the student's risk ratio was to 1.0, the more at risk he was for dropping out of school. The graduation coach then met with the academic teachers in the school to see which of the at-risk students were most in need of services from the coach. A caseload was then created by the graduation coach so that she could coordinate services, devise intervention programs, and decide how to provide assistance to these at-risk students.

The middle school graduation coach worked with the targeted students during the 2008-2009 school year. During her time with the students she used research-based strategies such as helping the students develop short and long-range goals, constantly monitoring student progress, recognizing accomplishments, mentoring, tutoring, monitoring attendance, and monitoring behavior.

The students that the graduation coach has targeted are usually not motivated to do well or behave in the classroom and many times the same students are not motivated to come to school. The graduation coach used a reward system for those students who came to school, behaved in class, and completed their homework and/or class work. At the beginning of the school year the graduation coach would meet with each student on her caseload at the beginning of the week and give them a checklist to have completed by his teachers each day. The checklist allowed the teachers to make comments about the

student's behavior, attendance, and academic performance. At the end of the week, the students were to turn in their checklists to the graduation coach for a reward. The students received one "warrior buck" for turning in the checklist and additional warrior bucks depending on the teacher comments for the week. As the student collected warrior bucks, he could turn them in for various prizes such as candy, drinks, pencils, and tickets to school functions. The graduation coach used the checklists to discuss the students' behavior, attendance, and class work each week and work with the students to set goals for the next week or grading period.

When students were failing a class or were getting behind with their class work, the graduation coach would pull the at-risk students out of class during non-instructional time. She helped the students complete their academic work by breaking it down into small segments and working with the students on a more individualized basis. Throughout the week, if the students needed help with an assignment, they could meet in the graduation coach's room during their non-academic classes and receive extra tutoring.

As the academic year progressed, some of the students stopped meeting with the graduation coach on a regular basis. The graduation coach did not force those students who were passing their academic classes and regularly attending school to meet with her any longer. However, she did seek out the students who were still having problems to give them checklists, but the graduation coach did not force these students to meet with her regularly and the students rarely returned their completed checklists. A portion of the at-risk students who were not motivated to do their class work and come to school were

often times the students who were not motivated to come to the meetings with the graduation coach, even if it was to take part in the rewards system.

Since the graduation coach had chosen the students to be involved in the experimental group, a random sample could not be used in this study. In the case of this study, matching was done “on a subject-to-subject basis to form matched pairs” (Ary, et al., 2006, p. 367). The group of 46 at-risk students who received treatment from the graduation coach was matched with a control group of at-risk students who did not receive services. The researcher paired students in the experimental group and control group based on their risk ratios. Some of the students served by the graduation coach did not have an at-risk indicator because they were new to the school during the 2007-2008 school year. Only two of the students involved in the study fell into this category. If there was no risk ratio available, students were matched based on similar math and language arts CRCT scores and similar attendance rates. Students were also paired based on gender. After the risk ratios and gender were matched, the researcher tried to match students as closely as possible based on similar ethnicity, math CRCT scores, reading CRCT scores, and attendance. Tables 3.3, 3.4, and 3.5, show the differences in attendance and reading and math CRCT scores between the experimental and control groups involved in the study. Even though the risk ratio and gender were perfectly matched between groups, it was difficult to keep all other variables the same.

At the end of the 2008-2009 school year, the students were again administered the CRCT. The test was considered the posttest of the study. The pretest and posttest scores of the students were compared to see if there was any significant difference. Attendance data was also collected at the end of the school year to see if there was any change from

the previous year. The following tables show the math and reading pretest scores and the attendance of the experimental and control groups.

Data Collection

The county superintendent, school principal, and middle school graduation coach granted the necessary permission to obtain the data needed to complete the study. Liberty University's Institutional Review Board (IRB) also granted the necessary permission to complete the study. The school's academic coach provided the student CRCT scores for the 2007-2008 and the 2008-2009 school years. The school's attendance secretary provided the attendance data for each at-risk student. The middle school graduation coach used the Graduation Coach Work Management System to provide information about the students' risk ratios, gender, and race.

The math and reading CRCT pretest and posttest scores were compared to see if they were significantly different. The attendance data was also recorded for the 2007-2008 and the 2008-2009 school years to see if there was any improvement in the group that received services from the middle school graduation coach. The confidentiality of the individual students and the school was maintained at all times during the research process.

Tables 3.3 and 3.4, show the performance levels of the experimental and control groups involved in the study before and after treatment by the graduation coach. Level one represents a CRCT score of less than 800 and indicates that the student did not meet the standards set forth by the state of Georgia in the specified area of instruction. A level two represents a CRCT score of 800-849 and indicates that the student did meet the

standards in the specific subject area. A level three represents a CRCT score of 850 and above and indicates that the student exceeded the standards in the specific subject area.

Table 3.3. Math Pretest and Posttest Levels on the CRCT

	2008			2009		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Experimental Group	19	26	1	15	28	3
Control Group	23	23	0	15	28	3

Table 3.4. Reading Pretest and Posttest Levels on the CRCT

	2008			2009		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Experimental Group	9	36	1	7	33	6
Control Group	11	34	1	6	35	5

Table 3.5 demonstrates the attendance for the experimental and control groups before and after treatment by the graduation coach. The state of Georgia has specified

that middle school students must attend 165 days of the school year to be promoted to the next grade level.

Table 3.5. Attendance for the Experimental and Control Groups

	2008		2009	
	0-14 Absences	15+ Absences	0-14 Absences	15+ Absences
Experimental Group	29	17	32	14
Control Group	37	9	42	4

Instruments

The Georgia Criterion Referenced Competency Test was used to show the academic progress of the students during the 2008-2009 school year. The CRCT was designed in 2000 to measure how well students acquire the knowledge and skills described in the Georgia Performance Standards (GPS). The initial development of the CRCT was overseen by the Georgia Department of Education and followed the guidelines of the *Standards for Educational and Psychological Testing* (Validity and Reliability, 2009). The CRCT gave information pertaining to the achievement of the student, class, school, system, and state levels (What Georgia, 2008). The test had been used to find the individual strengths and weaknesses of the students.

The CRCT contained selected-response test items. The data from the test provided information regarding the performance of all students, all special education

students, gender, and ethnicity, from grades one through eight (What Georgia, 2008). The data provided scores for the areas of mathematics, language arts, reading, science, and social studies.

Two types of accommodations could be given to the students taking the CRCT to help provide equity between all students with and without disabilities. Standard accommodations provided assessment without altering the construct that is measured by the test (What Georgia, 2008). Conditional accommodations could also be given for students with disabilities who might not otherwise be able to take the assessment without assistance (What Georgia, 2008). Conditional accommodations might include the testing administrator reading the test questions aloud to the student, allowing the student to use a calculator on the math section, and small group test administration.

In the scoring systems, the scale score that was reported for each content area was found by converting the raw score (the number of correct questions on the test) to the CRCT scale. The Georgia Department of Education uses performance levels to determine the AYP status of the school. The performance levels were as follows: below 800 points indicated the student did not meet the standards (level one), 800-849 points indicated that the student did not meet the standards (level two), and at or above 850 points indicated that the student exceeded the standards in that content area (What Georgia, 2008). Although the test is administered in grades one through eight, the state of Georgia has mandated that students must pass the test in grades three, five, and eight before going onto the next grade level.

According to Ary, Jacobs, Razavich, and Sorenson (2006, p. 638), reliability was defined as “the extent to which a measure yields consistent results; the extent to which

scores are free of random error.” According to the Georgia Department of Education, the reliability of the CRCT was evaluated by statistical methods such as the Cronbach’s alpha reliability coefficient and the standard error of measurement (SEM) (Validity and Reliability, 2009). In 2004, the CRCT total test reliabilities ranged from 0.87 to 0.91 for mathematics, 0.79 to 0.86 for reading, 0.89 to 0.90 for science, 0.85 to 0.89 for language arts, and 0.88 to 0.91 for social studies (What Georgia, 2008).

Validity of a measurement was defined as “the extent to which a measure actually taps the understanding concept that it purports to measure” (Ary, et al., 2006, p. 640). According to the Georgia Department of Education (What Georgia, 2008), the validity of the CRCT began with the purpose of the assessment and continued through review and item writing. Qualified, professional content specialists wrote all the test items for the Georgia CRCT. Committees of Georgia educators and curriculum specialists reviewed the test items after they were written. The test items were evaluated for content coverage and appropriateness, grade appropriate stimuli that emphasizes higher order thinking skills, alignment to the curriculum, and overall quality and clarity (What Georgia, 2008). The test’s validity strongly relied on its input from Georgia educators through the various stages of test development and the CRCT’s alignment with Georgia’s standards (Validity and Reliability, 2009). To further ensure validity, the Georgia Technical Advisory Committee (TAC), met on a quarterly basis to continually review the test development and the implementation process (What Georgia, 2008).

The attendance for each student was retrieved from the school’s Infinite Campus program. The web-based program allowed parents, educators, and students the ability to access information from any location. Teachers were able to enter their classroom

attendance into Infinite Campus and standard attendance reports could be retrieved from the system.

Data Analysis Procedures

A quantitative research perspective was used to study the effect of the middle school graduation coach on the at-risk student. A causal-comparative research design was used to determine the cause and effect relationship of the at-risk students after they have received services from the middle school graduation coach for a period of one school year. The subjects could not be randomly chosen for the study because the graduation coach had already chosen the treatment group. The graduation coach's caseload was created by determining the student's risk ratio for dropping out of school and then meeting with the school's teachers to see which students most needed services from the graduation coach. The independent variable involved in the research was the services provided by the graduation coach and the dependent variables were the attendance and the math and reading CRCT scores of the students involved in the study. A control group was created by matching each student receiving services from the graduation coach with a student who had the same risk ratio and similar math and reading CRCT scores and attendance.

The standardized test scores came from the CRCT that was administered in the spring of the 2008-2009 school year. The attendance of the students was also observed during the same school year. The experimental treatment was the services that the middle school graduation coach provided the chosen at-risk students during the 2008-2009 school year. The control group of at-risk students did not receive any services from the middle school graduation coach.

The information was analyzed using the SPSS Computer Software program. A paired *t*-test was performed first to see if there was a significant difference between the pretest and posttest CRCT scores in the areas of reading and math and the attendance rates between the 2007-2008 and the 2008-2009 school years. After finding results using the paired *t*-test, an analysis of covariance (ANCOVA) was used to test if the graduation coach was main effect on the experimental group of students. An analysis of covariance can be defined as “a statistical technique that provides partial statistical control for one or more variables, removing their influence from the comparison of groups on the dependent variable” (Ary, et al., 2006, p. 629). In order to confirm that the hypotheses were true, the experimental group would need to have significantly higher attendance and math and reading CRCT scores than the control group. These results would confirm that the middle school graduation coach was using appropriate strategies when working with at-risk students.

Summary

The study compared the math and reading Georgia CRCT scores and the attendance rates of two groups of at-risk students in a northwest Georgia middle school. The treatment group consisted of 46 sixth, seventh, and eighth grades at-risk students who received services from the middle school graduation coach during the 2008-2009 school year. The control group consisted of 46 closely matched sixth, seventh, and eighth grade at-risk students who did not receive any services during the same school year. The 2007-2008 math and reading CRCT tests were used as pretests in the study. According to the literature review, the at-risk students who received services from the middle school graduation coach should have increased their attendance and math and

reading CRCT scores for the 2008-2009 school year. A paired t-test and an analysis of covariance (ANCOVA) were the statistical methods used to find if there was a significant difference between the CRCT scores and the attendance of the treatment group and the control group. If the data find that there is no effect on the attendance and math and reading CRCT scores by the middle school graduation coach, she will need to modify and improve the strategies that are being used to help the at-risk students succeed.

The results of the study are discussed in chapter four.

Chapter Four: Results

The purpose of the study was to determine if the middle school graduation coach was effective in helping the at-risk students increase their attendance and math and reading Georgia Criterion Referenced Competency test scores after one year of receiving services. This chapter describes the results of the study.

Research Questions

RQ₁: Does the use of a middle school graduation coach have an effect on the attendance of sixth, seventh, and eighth grade at-risk students?

H₁: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher attendance than the control group of students who do not.

RQ₂: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test math scores of sixth, seventh, and eighth grade at-risk students?

H₂: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test math scores than the control group of students who do not.

RQ₃: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test reading scores of sixth, seventh, and eighth grade at-risk students?

H₃: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test reading scores than the control group of students who do not.

RQ₄: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the female experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the female control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₄₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of female at-risk students who received services from the middle school graduation coach

H₄₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₃: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₄: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control

group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₅: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₆: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

RQ₅: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the male experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the male control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₅₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of male at-risk students who received services from the middle school graduation coach

H₅₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H_{5.3}: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of male at-risk students who receive services from the middle school graduation coach.

H_{5.4}: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H_{5.5}: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade experimental group of male at-risk students who receive services from the middle school graduation coach.

H_{5.6}: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

This study examined the effects the middle school graduation coach had on the math and reading Georgia Criterion Referenced Competency Test (CRCT) scores and the attendance of at-risk students. In 2008, Sonny Perdue, the governor of Georgia, implemented the middle school graduation coach program in all public middle schools in the state after it was found to be so successful at the high school level. The graduation coach was added to the staff of the northwest Georgia middle school for the 2008-2009 school year. After using the National Dropout Prevention Network and input from the

teachers she identified 46 of the school's most at-risk students in need of services. The services included working with the students in individual and small group settings on academics, attendance, and behavior. The graduation coach also worked with students to create short and long term goals to help students find success in their areas of need. The student groups involved in the study consisted of an experimental group of 46 at-risk students who received services from the middle school graduation coach during the 2008-2009 school year and a control group of 46 at-risk students who did not receive services. The hypothesis was that there would be a significant difference between the math and reading CRCT scores and the attendance of the experimental group that received services from the middle school graduation coach and the control group that did not receive services. The data analysis used in the study would help identify strategies used by the middle school graduation coach were successful in helping the students to increase their math and reading CRCT scores and attendance.

The two groups involved in the study demonstrated at-risk characteristics in at least one of the following areas: a history of school failure, academic struggles, poor attendance, frequent behavior problems, and disengagement from school. This study attempted to answer the question of whether the middle school graduation coach had an effect on the at-risk students who received services during the 2008-2009 school year.

The Georgia Department of Education uses three performance levels to describe student outcomes on the Georgia Criterion Referenced Competency Test (CRCT). Level one (below 800) demonstrates that a student has not met the standards set forth by the state in the specific subject area and is considered unacceptable by the state of Georgia. A level two (800-849) demonstrates that the student has met the standards and a level

three (850 and above) demonstrates that the student has exceeded the standards. Figures 4.1 and 4.2 show the differences in the pretest and posttest math and reading CRCT performance levels. Figures 4.3 and 4.4 show the differences in the CRCT scale scores for the experimental and control groups.

Figure 4.1. Math CRCT Performance Levels for the Experimental and Control Groups

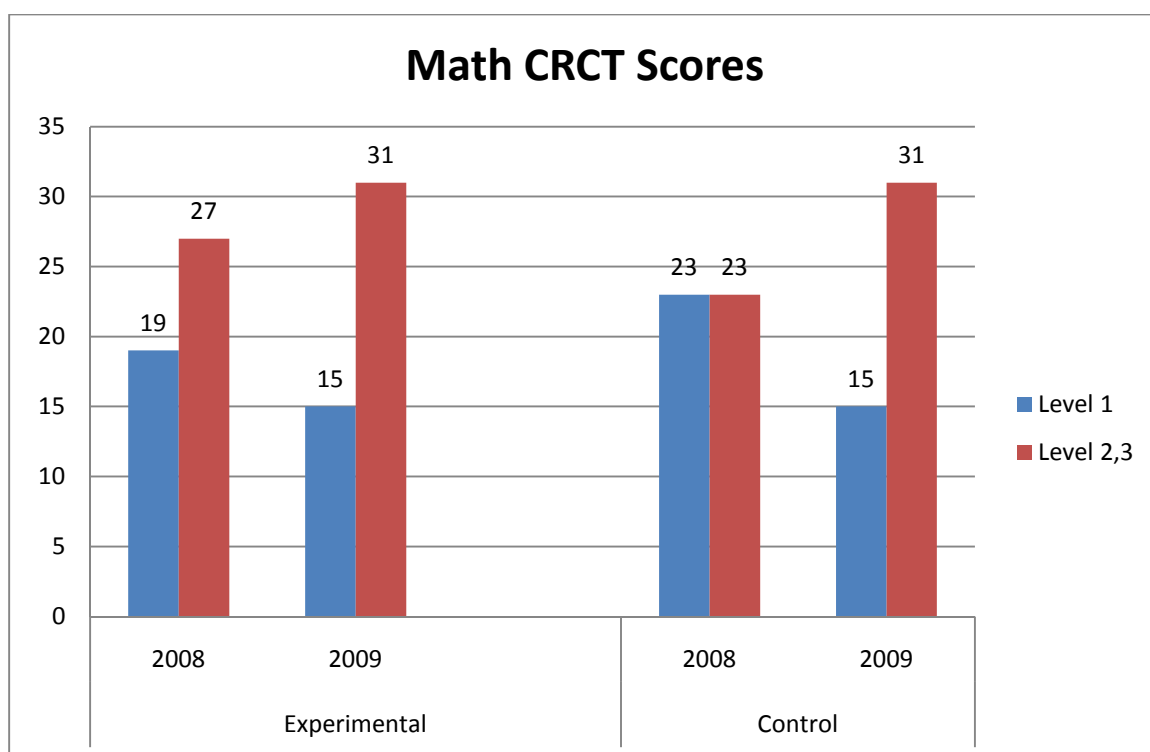


Figure 4.2. Reading CRCT Performance Levels for the Experimental and Control Groups

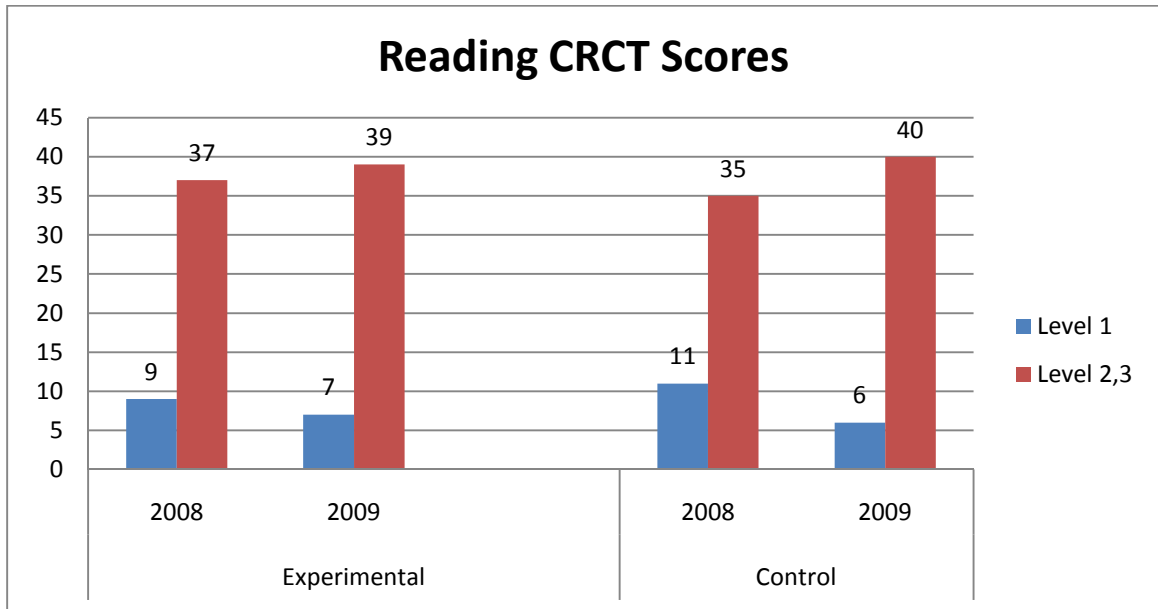


Figure 4.3. Math CRCT Scale Scores for the Experimental and Control Groups

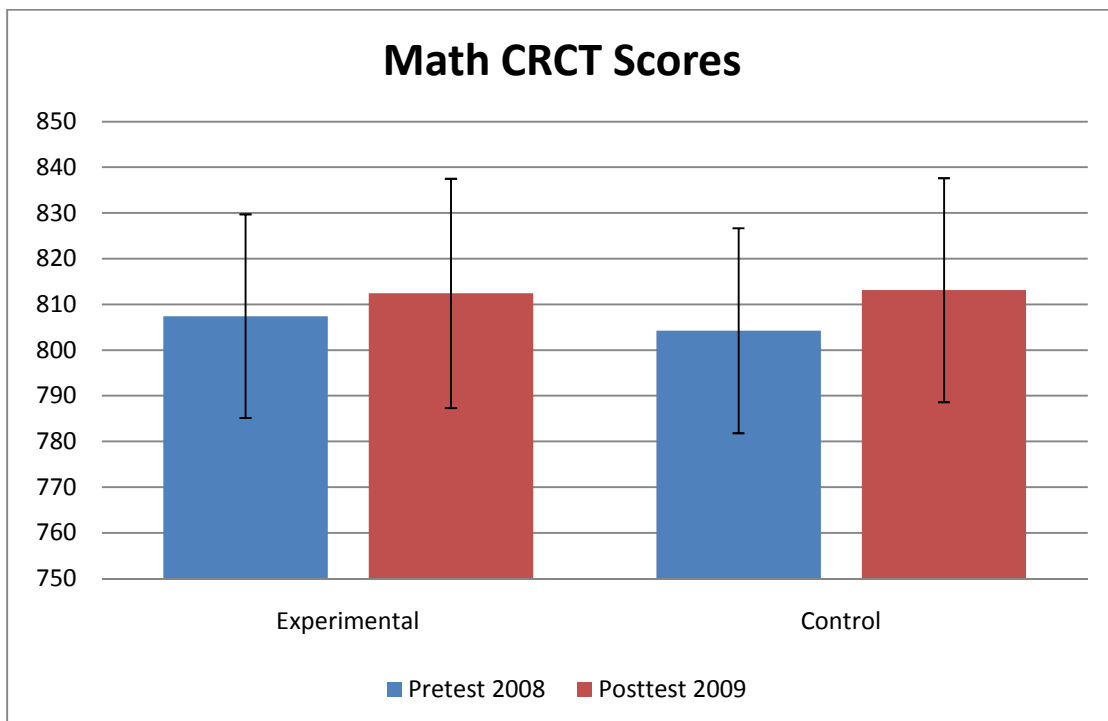
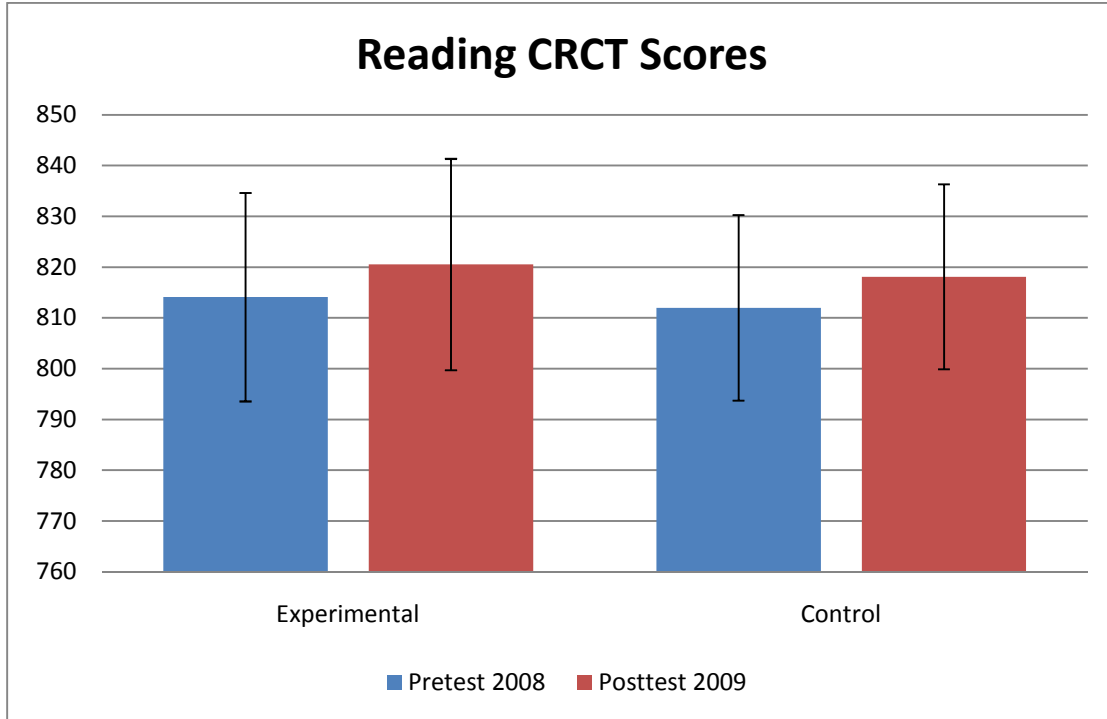
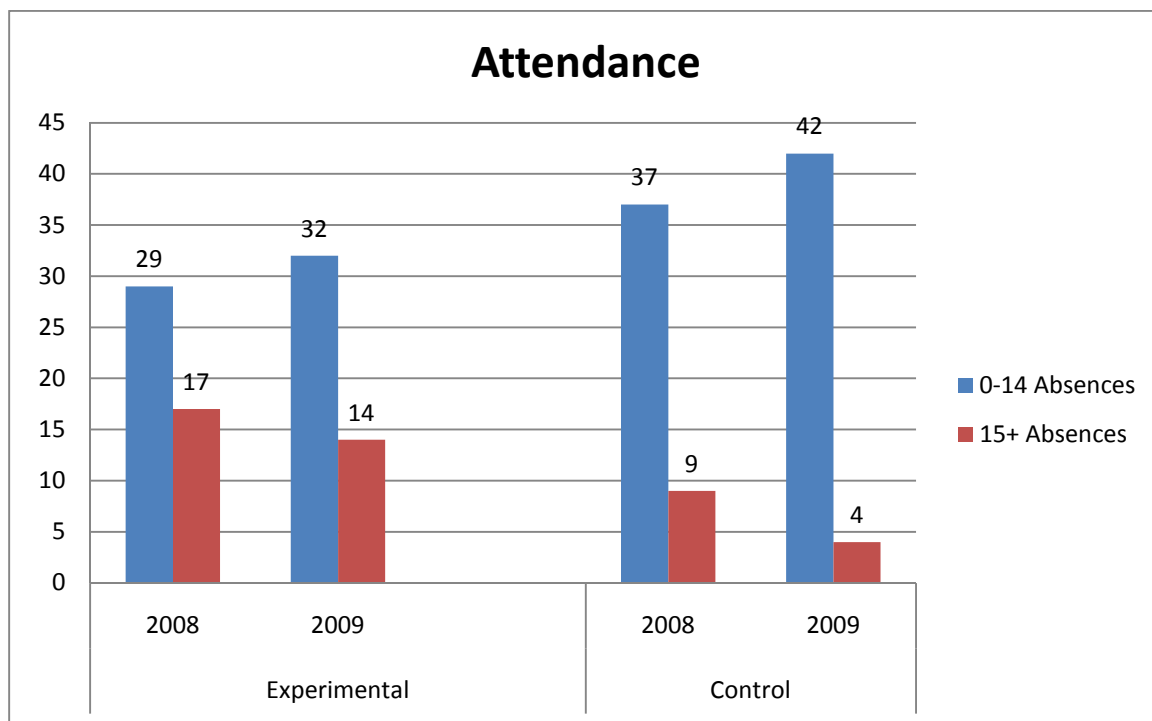


Figure 4.4. Reading CRCT Scale Scores for the Experimental and Control Groups



The state of Georgia also considers more than 15 absences in a school year unacceptable and the student can be retained for excessive absences. Figure 4.5 shows the number of students in the experimental and control groups with acceptable and unacceptable absences for the 2007-2008 and 2008-2009 school years.

Figure 4.5. Attendance for the Experimental and Control Groups

Analyzing the Data

The students in the experimental group were matched to students in the control group that had the same risk ratio number using the National Dropout Prevention Network. After the risk ratio numbers were found, the students were matched as closely as possible according to their gender, race, attendance rate, and similar math and reading CRCT scores (see Appendix). After the attendance and math and reading CRCT scores were collected for each student involved in the study, an analysis of covariance (ANCOVA) was performed to determine if the middle school graduation coach had an effect on the attendance and CRCT scores of the at-risk students. Table 4.1 shows the overall descriptive statistics when all students are included in the analysis. Table 4.2 and 4.3 show descriptive statistics of the experimental and control groups separately.

Table 4.1. Overall Descriptive Statistics – All students included, n=92

	Reading <i>mean ± SD</i>	Math <i>mean ± SD</i>	Attendance (in Days) <i>mean ± SD</i>
Pretest	813.05 ± 19.36	805.54 ± 22.30	11.43 ± 7.74
Posttest	819.32 ± 19.49	812.77 ± 24.66	10.14 ± 8.92

Table 4.2. Descriptive Statistics Experimental Group, n = 46

	Reading <i>mean ± SD</i>	Math <i>mean ± SD</i>	Attendance (in Days) <i>mean ± SD</i>
Pretest	814.11 ± 20.53	807.43 ± 22.29	12.82 ± 7.84
Posttest	820.52 ± 20.83	812.41 ± 25.09	12.33 ± 10.23

Table 4.3. Descriptive Statistics Control Group, n = 46

	Reading <i>mean ± SD</i>	Math <i>mean ± SD</i>	Attendance (in Days) <i>mean ± SD</i>
Pretest	812.00 ± 18.29	804.26 ± 22.43	10.04 ± 7.46
Posttest	818.11 ± 18.21	813.13 ± 24.51	7.96 ± 6.81

When looking at the scores of all the students involved in the study, the CRCT math and reading scores increased while the attendance rate decreased during the 2008-2009 school year. The analysis of the attendance data found that the average number of days missed by the experimental group before treatment was 12.82 days and the average number of days missed after treatment from the graduation coach was 12.33 days.

However, the number of days missed by the control group during the 2007-2008 school year was 10.04 days while the number of days missed during the 2008-2009 school year was 7.96. The students who did not receive treatment from the graduation coach (control group) actually showed a larger decrease in the number of days missed during the 2008-2009 school year than the group of students who received treatment from the middle school graduation coach.

The first research question was whether the middle school graduation coach had an effect on the attendance of sixth, seventh, and eighth grade at-risk students. An analysis of covariance (ANCOVA) was conducted to determine if there was a statistically significant difference between the experimental and control groups of at-risk students.

The first research hypothesis was as follows:

The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher attendance than the control group of students who do not.

The ANCOVA results in Table 4.4 indicated that there was not a significant difference in attendance for the experimental and control groups ($p = .074$). The research hypothesis was rejected.

Table 4.4. ANCOVA Results of Attendance**Tests of Between-Subjects Effects**

Dependent Variable: Post Attendance

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1632.747 ^a	2	816.373	12.964	.000
Intercept	618.617	1	618.617	9.824	.002
PreAttendance	1193.606	1	1193.606	18.955	.000
Case/Control	206.298	1	206.298	3.276	.074
Error	5604.416	89	62.971		
Total	16699.000	92			
Corrected Total	7237.163	91			

a. R Squared = .226 (Adjusted R Squared = .208)

The second research question was whether the use of a middle school graduation coach had an effect on the math CRCT scores of sixth, seventh, and eighth grade at-risk students. The specific research hypothesis was as follows:

The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test math scores than the control group of students who do not.

An ANCOVA was performed to control for initial differences in the experimental and control groups to determine if there was a significant difference in the math pretest and posttest CRCT scores. The ANCOVA results in Table 4.5, indicate that there were no significant differences between the experimental and control groups in terms of math achievement. ($p = .550$). The research hypothesis was rejected.

Table 4.5. ANCOVA Results of Math Test Scores

Tests of Between-Subjects Effects

Dependent Variable: Math Post Test Scores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	16305.953 ^a	2	8152.976	18.581	.000
Intercept	7445.699	1	7445.699	16.969	.000
Math PreTest	16294.116	1	16294.116	37.134	.000
Case/Control	157.929	1	157.929	.360	.550
Error	39052.254	89	438.789		
Total	6.083E7	92			
Corrected Total	55358.207	91			

a. R Squared = .295 (Adjusted R Squared = .279)

The third research question was whether the use of a middle school graduation coach had an effect on the reading CRCT scores of sixth, seventh, and eighth grade at-risk students. The specific research hypothesis was as follows:

The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test reading scores than the control group of students who do not.

An ANCOVA was performed to determine if the differences in the reading CRCT scores were due to the middle school graduation coach. Table 4.6 indicates that there were no differences between the experimental and control groups ($p = .749$). The research hypothesis was rejected.

Table 4.6. ANCOVA Results of Reading Test Scores**Tests of Between-Subjects Effects**

Dependent Variable: Reading PostTest Scores

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	16134.782 ^a	2	8067.391	38.935	.000
Intercept	3521.139	1	3521.139	16.994	.000
Reading PreTest	16000.858	1	16000.858	77.223	.000
Case/Control	21.432	1	21.432	.103	.749
Error	18441.076	89	207.203		
Total	6.179E7	92			
Corrected Total	34575.859	91			

a. R Squared = .467 (Adjusted R Squared = .455)

The fourth research question dealt with whether there were significant gains in attendance and Georgia Criterion Referenced Competency Test scores in math and reading of sixth, seventh, and eighth grade female at-risk students who received services from the middle school graduation coach and the female control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach. The final analyses were examined by gender and the changes, if any,

on the attendance and math and reading CRCT scores. The first null hypothesis for this research question was as follows:

There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of female at-risk students who received services from the middle school graduation coach.

Results for a paired-sample t-test are shown in Table 4.7. There were no significant gains for the experimental group in terms of attendance, so the null hypothesis was accepted.

Table 4.7. Female Attendance T-Test Results -Experimental Group

Group	n	M	SD	t	p<
2008	18	13.17	6.70	0.50	.622
2009	18	14.56	10.62		

The second null hypothesis for research question four was as follows:

There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

Results of the t-test are shown in Table 4.8. No significant gains were indicated, so the null hypothesis was accepted.

Table 4.8. Female Attendance T-Test Results - Control Group

Group	n	M	SD	t	p<
2008	18	8.61	6.75		
				0.91	.371
2009	18	6.83	4.87		

The third null hypothesis for research question four was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

Results of the t-test for hypothesis 4-3 are shown below:

Table 4.9. Female Math CRCT Scores T-Test Results - Experimental Group

Group	n	M	SD	t	p<
Pretest	18	811.72	23.14		
				1.84	.084
Posttest	18	802.83	25.18		

Results indicate no significant gains in math scores for the experimental group, so the null hypothesis was accepted.

The fourth null hypothesis for research question four was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of female at-risk students who receive services from the middle school graduation coach.

Results of the t-test for hypothesis 4-4 are shown below:

Table 4.10. Female Math CRCT Scores T-Test Results - Control Group

Group	n	M	SD	t	p<
Pretest	18	809.50	23.13		
				2.05	.0557
Posttest	18	819.56	24.01		

Results indicate no significant gains in math scores for the control group, so the null hypothesis was accepted.

The fifth null hypothesis for research question four was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade

experimental group of female at-risk students who receive services from the middle school graduation coach.

T-test results for this comparison are shown below:

Table 4.11. Female Reading CRCT Scores T-Test Results - Experimental Group

Group	n	M	SD	t	p<
Pretest	18	820.22	21.48		
				1.12	.277
Posttest	18	824.00	24.19		

Results indicate no significant gains in reading scores for the experimental group, so the null hypothesis was accepted.

The sixth null hypothesis for research question four was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of female at-risk students who did not receive services from the middle school graduation coach.

T-test results for this comparison are shown below:

Table 4.12. Female Reading CRCT Scores T-Test Results - Control Group

Group	n	M	SD	t	p<
Pretest	18	813.78	16.97		
				3.01	0.008
Posttest	18	824.11	15.29		

As indicated above, the control group did make significant gains in CRCT reading scores ($p=0.008$), so the null hypothesis was rejected.

The fifth research question dealt with whether there were significant gains in attendance and Georgia Criterion Referenced Competency Test scores in math and reading of sixth, seventh, and eighth grade male at-risk students who received services from the middle school graduation coach and the male control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach. The final analysis performed looked at gender and the changes, if any, on the attendance and math and reading CRCT scores. The first null hypothesis for this research question was as follows:

There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of male at-risk students who received services from the middle school graduation coach.

Results for a paired-sample t-test are shown in Table 4.13. There were no significant gains for the experimental group in terms of attendance, so the null hypothesis was accepted.

Table 4.13. Male Attendance T-Test Results - Experimental Group

Group	n	M	SD	t	p<
2008	28	12.61	8.61	0.89	.382
2009	28	10.89	9.89		

The second null hypothesis for research question five was as follows:

There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

Results of the t-test are shown in Table 4.14. No significant gains were indicated, so the null hypothesis was accepted.

Table 4.14. Male Attendance T-Test Results - Control Group

Group	n	M	SD	t	p<
2008	28	10.96	7.86		
				1.61	.118
2009	28	8.68	7.82		

The third null hypothesis for research question five was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of male at-risk students who receive services from the middle school graduation coach.

Results of the t-test for hypothesis 4-3 are shown below:

Table 4.15. Male Math CRCT Scores T-Test Results - Experimental Group

Group	n	M	SD	t	p<
Pretest	28	804.68	21.71		
				3.36	.002
Posttest	28	818.57	23.43		

Results indicate no significant gains in math scores for the experimental group, so the null hypothesis was accepted.

The fourth null hypothesis for research question five was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of male at-risk students who receive services from the middle school graduation coach.

Results of the t-test for hypothesis 4-4 are shown below:

Table 4.16. Male Math CRCT Scores T-Test Results - Control Group

Group	n	M	SD	t	p<
Pretest	28	800.89	21.72		
				1.95	.061
Posttest	28	809.00	24.35		

Results indicate no significant gains in math scores for the control group, so the null hypothesis was accepted.

The fifth null hypothesis for research question five was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade

experimental group of male at-risk students who receive services from the middle school graduation coach.

T-test results for this comparison are shown below:

Table 4.17. Male Reading CRCT Scores T-Test Results - Experimental Group

Group	n	M	SD	t	p<
Pretest	28	810.18	19.27		
				2.68	.012
Posttest	28	818.29			

Results indicate no significant gains in reading scores for the experimental group, so the null hypothesis was accepted.

The sixth null hypothesis for research question five was as follows:

There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of male at-risk students who did not receive services from the middle school graduation coach.

T-test results for this comparison are shown below:

Table 4.18. Male Reading CRCT Scores T-Test Results - Control Group

Group	n	M	SD	t	p<
Pretest	28	810.86	19.30		
				1.11	.278
Posttest	28	814.25	19.13		

As indicated above, the control group did make significant gains in CRCT reading scores ($p=0.008$), so the null hypothesis was rejected.

Summary

An analysis of covariance (ANCOVA) was performed to find out if the differences in pretest and posttest scores were due to the effects of the middle school graduation coach. The results of the ANCOVA indicated that inclusion in a group that utilized the services of a middle school graduation coach had no effect on the attendance or the math and reading CRCT scores of the experimental group and control groups after the groups did or did receive services from the graduation coach.

The final analysis was completed to determine if there were significant differences in attendance and math and reading CRCT scores according to gender for the experimental and control groups. For females, paired samples t-tests indicated significant increases in the attendance and in reading scores, but only for the control group. No other significant changes were noted. For males, the results of paired samples t-tests

indicated a significant increase in math scores and reading scores for the experimental group. No other significant changes were indicated.

Chapter five is a summary of the study including a discussion of the results, implications, limitations, applications, and recommendations for future research.

Chapter Five: Summary

This chapter summarizes the results of the study. The first section of the summary restates the problem and reviews the methodology. The second part of the chapter summarizes and discusses the results of the study. The third section of the summary contains recommendations and suggestions for further study.

Introduction

The goal set by the No Child Left Behind Act for graduation rates to reach 100% by the year 2014, caused states such as Georgia to take steps to increase their already low graduation rate. The Georgia Department of Education and Communities in Schools worked together to create a Georgia graduation coach program that would help students who were at-risk of dropping out of school to get back on track to graduation. The graduation coaches were first introduced at the high school level in 2006. They were found to be so successful in decreasing the dropout rate that Georgia's Governor Sonny Perdue also added graduation coaches to all public middle schools in 2008.

The middle school involved in the study hired its first graduation coach in the fall of 2008. She attended several training sessions in the summer and fall of 2008, which prepared her to identify and work with those middle school students who were found to be at risk of not graduating from high school. The middle school graduation coach used the student risk ratios from the National Dropout Prevention Network and worked closely with the academic teachers to create a caseload of 46 sixth, seventh, and eighth grade students.

During the 2008-2009 school year, the middle school graduation coach used strategies such as goal-setting, tutoring, mentoring, study skills groups, and transition activities to help the student be more successful in the school environment. She met with the students at least once a week to make sure they were meeting their academic, behavior, and attendance goals.

Purpose

The long-term goal of the middle school graduation coach is to increase the high school graduation rate. However, the short-term goals include helping students to improve their academic achievement, attendance, and behavior. These goals are important for the middle school involved in the study, which has been in danger of not meeting Annual Yearly Progress (AYP) due to poor attendance and failing math CRCT scores.

The purpose of the study was to determine if the middle school graduation coach was effective in helping the at-risk students increase their math and reading CRCT scores and attendance after one year of receiving services. The students involved in the study were divided into two groups: those at-risk students who received services and students who did not receive any services from the middle school graduation coach (control group).

Research Questions

RQ₁: Does the use of a middle school graduation coach have an effect on the attendance of sixth, seventh, and eighth grade at-risk students?

H₁: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher attendance than the control group of students who do not.

RQ₂: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test math scores of sixth, seventh, and eighth grade at-risk students?

H₂: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test math scores than the control group of students who do not.

RQ₃: Does the use of a middle school graduation coach have an effect on the Georgia Criterion Referenced Competency Test reading scores of sixth, seventh, and eighth grade at-risk students?

H₃: The experimental group of students who utilize the services of the middle school graduation coach will have significantly higher Georgia Criterion Referenced Competency Test reading scores than the control group of students who do not.

RQ₄: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the female experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the female control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₄₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of female at-risk students who received services from the middle school graduation coach

H₄₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₃: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₄: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

H₄₋₅: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade experimental group of female at-risk students who receive services from the middle school graduation coach.

H₄₋₆: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of female at-risk students who do not receive services from the middle school graduation coach.

RQ₅: Is there a significant increase in attendance and in the Georgia Criterion Referenced Competency Test math and reading scores of the male experimental group of sixth, seventh, and eighth grade at-risk students who received services from the middle school graduation coach and the male control group of sixth, seventh, and eighth grade at-risk students who did not receive services from the middle school graduation coach?

H₅₋₁: There will be no significant increase in attendance for the sixth, seventh, and eighth grade experimental group of male at-risk students who received services from the middle school graduation coach

H₅₋₂: There will be no significant increase in attendance for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H₅₋₃: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade experimental group of male at-risk students who receive services from the middle school graduation coach.

H₅₋₄: There will be no significant increase in Georgia Criterion Referenced Competency Test math scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

H₅₋₅: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade

experimental group of male at-risk students who receive services from the middle school graduation coach.

H₅₋₆: There will be no significant increase in Georgia Criterion Referenced Competency Test reading scores for the sixth, seventh, and eighth grade control group of male at-risk students who do not receive services from the middle school graduation coach.

Review of Methodology

Design of Study

A pretest posttest, nonrandomized control group was used in the design of this study. The students involved in the study were divided into two groups: those at-risk students who received services from the middle school graduation coach for one year (experimental group) and those at-risk students who did not receive any services from the middle school graduation coach. The experimental and control groups could not be chosen by random assignment because the subjects involved in the experimental group were chosen by the middle school graduation coach.

Participants

The northwest Georgia middle school involved in the study enrolled approximately 750 students during the 2008-2009 year. Although 466 students in the school were found to be at-risk according to the National Dropout Prevention Network, the graduation coach had only 46 students on her caseload. She developed her caseload based on the students' risk ratios and academic teacher input. The ethnicity of her caseload did not match that of the school's population. The experimental group consisted of 85% white, 7% black, 7% Hispanic, and 1% Asian students. Thirty-seven percent of

the students in the experimental group missed more than 15 days of school. Forty-one percent of the experimental group failed the math portion of the CRCT, while 20% of the students failed the reading section.

The 46 students in the experimental group were matched with 46 students who had the same risk ratio and gender but did not receive services from the middle school graduation coach during the 2008-2009 school year. The students were also matched based on similar attendance rates, math and reading CRCT scores, and ethnicity. The control group consisted of 94% white, 4% black, and 2% Hispanic students. Twenty percent of the students in the control group missed more than 15 days of school during the year. Fifty percent of the control group failed the math portion of the CRCT and 24% of the students failed the reading section.

Procedures

The math and reading CRCT scores from the spring of 2008 were used as the pretest scores for the control and experimental groups. The attendance for all of the students involved in the study was retrieved from the Infinite Campus web-based program at the end of the 2007-2008 school year.

The middle school graduation coach targeted 46 students who were labeled at-risk of not graduating from high school according to teacher referrals and the risk-ratios provided by the National Dropout Prevention Network. Students were considered to be more at-risk for becoming a dropout if they had been previously retained in a grade, failed academic classes, attendance problems, low math and reading CRCT scores, behavior problems, and family risk factors. The graduation coach created her caseload in the fall of 2008. At the beginning of the school year, she met with the students at least

once on a weekly basis to check on their attendance, academics, and behavior. Each student was responsible for keeping a checklist each week to be signed by their teachers and parents each day. Rewards were given to the students based on results of each week's checklist.

At the end of the 2008-2009 school year, the CRCT was again administered and the math and reading scores were used as posttests for the study. Attendance for all students involved in the study was again gathered at the end of the 2009 school year.

A causal comparative research design was used to determine the cause and effect relationship of the at-risk students after they had received services from the middle school graduation coach during the 2008-2009 school year. The experimental group was made up of 46 at-risk students who received treatment from the graduation coach for a period of one year. A control group of at-risk students who did not receive services from the graduation coach was created by matching students with those from the experimental group that had the same risk ratios and similar attendance, math and reading CRCT scores, gender, and ethnicity.

Summary of Results

SPSS was used to conduct an analysis of covariance (ANCOVA) to determine if the differences in the pretest and posttest scores were due to the effects of the middle school graduation coach. The results of the ANCOVA found that the middle school graduation coach had no effect on the attendance ($p = .074$), math CRCT scores ($p = .550$), or reading CRCT scores ($p = .749$) of the at-risk students.

The separate genders were then analyzed to see if there were significant differences in the female and male attendance, math, and reading CRCT scores. The

paired t-test results found no significant differences in attendance between the experimental or control groups for the female or male students. The paired t-test of the math CRCT scores only found a significant difference ($p < .002$) in the male experimental group with a 1.7% increase in the scores. The paired t-test of the reading CRCT scores found a significant difference with an increase ($p < .008$) of 1.3% in the female control group and an increase ($p < .012$) of 1% in the male experimental group.

Discussion

Adequate Yearly Progress (AYP) is the formula used by the state of Georgia to decide whether a school has met the standards that have been set in place. The first indicator that a middle school meets AYP is that a specific number of students pass the reading and math sections of the Georgia Criterion Referenced Competency Test. The second indicator used by the middle school involved in the study was attendance. The current attendance policy at the middle school states that the student must not exceed fifteen absences per year or he will be retained. Much of the research in the literature review supported the idea that students would perform better academically and would be more likely to come to school when they felt that the school was a caring, safe environment. The Georgia middle school graduation coach was put into place to provide at-risk students an adult to mentor and guide them to the goal of graduation. The purpose of this study was to determine if the middle school graduation coach had an effect on the math and reading CRCT scores and the attendance of the at-risk students to whom she provided treatment.

The students the graduation coach chose to serve during the 2008-2009 school year struggled with either attendance and/or academics. Balfanz, et al. (2007) found

these areas to be high predictors of future dropouts. Once the students were chosen, the graduation coach set up once a week meetings with the students on her caseload. The graduation coach used research-based strategies when working with the students such as: mentoring, monitoring academic progress, developing short and long range goals, tutoring, monitoring behavior, and monitoring attendance (Georgia Department of Education, 2008). At that time she would check over the students' attendance and grades for the week, help the students with assignments, and work on developing long and short-term goals with the students.

At the beginning of the school year, the students were more consistent in meeting with the graduation coach on a weekly basis. However, as the school year progressed some of the students stopped attending on regularly. If a student's teacher had academic or attendance concerns about a student, the graduation coach would pull the student from his non-academic classes and work to get him back on track. Those students who had stopped attending meetings and continued passing their academic classes and attended school regularly were not forced to meet with the graduation coach again during the year. Some of the original 46 students on the middle school graduation coach's caseload did not consistently receive services throughout the 2008-2009 school year.

After one year of treatment from the middle school graduation coach, analysis of the students' attendance and math and reading CRCT scores indicated that the graduation coach had no significant effect on the students' scores. However, the experimental group of students had slight increases in each area even though they were not found to be significant. The area of attendance showed the least amount of improvement with a 4% improvement from an average of 12.8 days of school missed during the 2007-2008 school

year to 12.3 days of school missed during the 2008-2009 school year. The reading CRCT scores of the experimental group were found to have the most improvement with a 0.8% increase going from an average of 814.11 to 820.52. The math CRCT scores of the experimental group increased 0.6% with an average score of 807.43 in 2008 to an average score of 812.41 in 2009.

Although the graduation coach was not found to make a significant difference on the increase in attendance and math and reading CRCT scores, an increase was still found in all of these areas. It was this increase that helped the school involved in the study to reach Annual Yearly Progress (AYP) for the 2008-2009 school year. Positive results showed that most of the students involved in the study did find success with their attendance and academics during the 2008-2009 school year.

Implications

Since the results of the research found that the graduation coach did not have a significant effect on the attendance and math and reading CRCT scores, the middle school graduation coach might need to change or improve the strategies that were used to help the at-risk students succeed. Because attendance showed the least amount of improvement, it should probably become the area of most focus. One of the main causes of growing achievement gaps is that students are not in school to keep up academically (Balfanz, et al., 2007). Currently the graduation coach has a checklist for attendance and if the students come to school each day for a week, they are given a reward. However, according to Balfanz, et al. (2009) each absence should elicit a response. The graduation coach should call the students every day that they are absent to let the students know they was missed and to help in solving problems that might be causing the student to miss

school (Balfanz, et al., 2007). It is important for the graduation coach to help students understand that they need to make positive decisions about their level of school engagement, which includes coming to school on a daily basis (Balfanz, et al., 2009).

The middle school graduation coach also worked with students to help them find academic success, but did not necessarily work towards improving the student's actual CRCT scores. One of the areas graduation coaches can focus on is remediating students to help increase the pass rate and then remediating those students again who do not pass the test (Georgia Department of Education, 2008). The extra help should be designed to address the specific deficiency a student has in an area of weakness if it is to be effective (Balfanz, 2009).

Another important area of improvement would be providing a consistent schedule for the students. Once the at-risk students are chosen at the beginning of the school year, they should be required to check in with the graduation coach at the beginning and the end of the week, while also having a designated time they meet during the week. There should not be a choice whether or not these students meet with the graduation coach and this routine should be continued throughout the school year. At-risk students need structure and routine and early adolescence is not a time when these students are able to take the full responsibility of meeting with the graduation coach voluntarily. Balfanz, et al. (2007), discovered that one of the most effective strategies in reaching an unresponsive student was to assign him an adult who would be responsible for shepherding the student by consistently checking on him and providing feedback.

Limitations

It is often difficult to determine which methods of intervention are effective when there are usually several interventions going on at the same time (Balfanz, 2009). There were several factors that could have influenced the attendance and CRCT scores of the students involved in the study. One important factor that was not taken into account was the socio-economic level of the students. The school involved in the study had a student population that 60% of the students qualified for the free or reduced lunch program. Christle, et al. (2007) found that a strong positive relationship existed between school failure and poverty. When a school is located in an area of poverty, the level of education it offers is not equal to schools located in middle to high socio-economic areas due to inequalities in the number of experienced administrators and teachers and the amount of federal funding the school receives (Christle, et al., 2007).

The study also did not take into account the number of students who were receiving academic assistance from the after school program while receiving treatment from the middle school graduation coach. The 21st Century Learning Center after school program offered the students a time period for math skill enrichment, reading skill enrichment, homework completion, and enrichment activities. The program was offered to all students who had been determined to be at-risk of dropping out of school. Some of those same students were also included in the graduation coach's caseload. However, the after school program only had an approximately 25% attendance rate for the students who attended the program on a regular basis.

The CRCT math and reading scores for the 2008-2009 school year might have also been influenced by the regular classroom teachers. Student outcomes have been found to be greatly influenced by the behaviors and characteristics of their teachers

(Christle, et al., 2007). When students attended schools where the personnel promoted and cared about student accomplishments and recognized their individuality, they were more likely to graduate from high school (Christle, et al., 2007).

Another factor that might have influenced the outcome of the study was that only one school with one middle school graduation coach was used in the study and that coach had very limited educational experience. Seventy-five percent of Georgia's middle and high school graduation coaches had been previously employed as teachers and/or counselors, with an average of 15 years work experience in education. The graduation coach involved in the study was a recent psychology graduate with no experience in the field of education. Her lack of knowledge and experience might have hindered her from being more effective as the graduation coach.

The fact that the study was done over the period of only one year was another factor that might have limited the results of the study. A study that takes into account data from a period of more than one year would provide more accurate results; such as studying a group during their sixth, seventh, and eighth grade years. Because it was the middle school graduation coach's first year, a prolonged study would also allow the graduation coach to gain experience and refine her strategies.

The study's results might not be a true indicator of the effects of the middle school graduation coach program due to its small area of focus. The study only involved one graduation coach in one school in the state of Georgia. More accurate results would have been achieved using a study that focused on the effects of several graduation coaches across the state of Georgia and perhaps across the nation.

Applications

Several steps could be taken to possibly make the middle school graduation coach program more effective. At the local level, the school administrator could hire a graduation coach who had a degree in education and experience in a school setting. This person might be more successful in working with at-risk students if she was more familiar with the day-to-day routine of the classroom. The administration could also insist on more accountability for the middle school graduation coach. Since the program was implemented, the coach has not been required to have a formal observation by the administrators in the building. The graduation coach could also be required to demonstrate student progress at the end of the school year as do the other classroom teachers.

The state level could also provide more opportunities for graduation coach training. When this program was first implemented, there were several training sessions available to the coaches. At the present, most graduation coaches rely on meetings with local coaches to learn about which strategies are working in surrounding schools rather than taking advantage of more formal training.

Funding has also been an issue with the graduation coach program. The state of Georgia fully funded the program during its first two years of implementation. However, the funding became the responsibility of the counties at the beginning of the 2009-2010 school year. Those counties that have chosen to continue funding the program usually hire beginning teachers at the bottom of the pay scale to keep costs low; however this usually comes at the cost of the graduation coach having little to no experience in education.

Recommendations for Future Research

The first recommendation for future research would be to complete a longitudinal study. It is possible that one year of treatment is not enough time to show the true effects of the program. The middle school graduation coach might be found to have improved results if the academics and attendance of the experimental group could be tracked in a longitudinal study throughout the three middle school years. An even stronger study would take the same students from the beginning of middle school until their graduation from high school.

The experimental group involved in the study was very small with only 46 participants. The research might have stronger results if the research study included the at-risk students who received services in all three middle schools from the northwest Georgia county. Each of the middle schools hired a new graduation coach for the 2008-2009 school year. The middle school graduation coach program is relatively new and further research is important in determining whether or not it is a program worth funding by the state of Georgia.

Conclusion

Dropping out of school is not usually an impulsive decision that is made by students, but one that is a cumulative process that takes place over time. It occurs when students have unsuccessful school experiences that cause them to develop a feeling of alienation from school (Martin, Tobin, & Sugai, 2002). These experiences might include: retention, behavior problems, academic problems, discipline problems, and absenteeism. Approximately 85% of the students who decide to drop out of school show disengagement and educational difficulty before tenth grade and often before they reach high school (Craig, 2007). Schools should have the ability to identify potential dropouts

and intervene. The graduation coach program was added to Georgia middle schools to place a “caring adult in the building” (Georgia Department of Education, 2008, p. 17), who would meet with at-risk students and help them find a sense of belonging to their schools, while at the same time helping the students find the path to graduation (Georgia Department of Education, 2008).

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Appendix

Experimental Group

	Grade	Math		Reading		Attendance		Risk Ratio	Gender	Ethnicity
		2008	2009	2008	2009	2008	2009	2008		
1	6	772	757	818	800	15	23	0.85	F	W
2	6	775	800	788	803	14	3	0.85	M	W
3	6	792	801	804	830	14	11	0.57	F	W
4	6	826	847	831	857	14	11	0	M	W
5	6	836	844	815	841	14	13	0	M	W
6	6	786	811	831	834	18	12	0.42	F	W
7	6	820	832	824	830	15	4	0.14	M	W
8	6	814	825	835	841	4	33	0.14	F	W
9	6	817	788	788	785	13	4	0.57	F	W
10	6	789	822	810	805	17	34	0.42	M	W
11	6	794	792	804	816	12	8	0.42	F	W
12	7	786	819	801	821	9	15	0.42	M	W
13	7	854	865	838	850	20	32	0.14	F	W
14	7	833	853	783	809	8	3	0.42	M	B
15	7	791	800	786	811	6	6	0.71	M	W
16	7	818	797	838	827	14	20	0.71	F	W
17	7	788	819	822	806	5	0	0.28	M	W
18	7	788	771	800	792	3	2	0.42	M	B
19	7	816	837	831	816	15	13	0.28	M	W
20	7	795	829	806	821	2	0	0.42	M	W
21	7	782	812	801	795	25	18	0.71	M	W
22	7	777	831	774	821	10	10	0.71	M	H
23	7	784	831	806	800	18	3	0.57	M	B
24	7	818	831	822	818	17	6	0.28	M	W
25	7	803	812	842	824	7	6	0.28	M	W
26	7	777	806	800	824	3	2	0.57	M	W
27	7	795	797	816	813	5	1	0.42	F	W
28	7	808	815	800	811	5	10	0.28	M	W
29	7	784	801	816	792	13	24	0.42	F	W
30	7	802	840	777	795	15	3	0.57	M	A
31	8	846	830	826	838	10	12	0.14	M	W
32	8	829	830	821	831	13	4	0.14	M	W
33	8	802	790	792	817	22	26	0.42	F	W
34	8	789	762	795	802	8	13	0.57	M	H
35	8	829	833	840	858	29	6	0.28	F	W
36	8	787	800	809	814	18	15	0.42	M	W

Experimental Group

	Grade	Math		Reading		Attendance		Risk Ratio	Gender	Ethnicity
		2008	2009	2008	2009	2008	2009	2008		
37	8	800	779	804	795	3	13	0.57	M	W
38	8	804	776	809	819	11	27	0.14	F	W
39	8	843	821	830	822	27	30	0.28	M	W
40	8	843	795	821	817	6	4	0.14	F	W
41	8	820	792	785	795	14	5	0.42	F	W
42	8	835	795	845	831	17	9	0.28	F	H
43	8	806	792	818	825	4	3	0.14	F	W
44	8	846	844	866	882	6	14	0.14	F	W
45	8	811	792	845	852	10	39	0.14	M	W
46	8	832	855	836	858	42	17	0.14	M	W

Control Group

Grade		Math		Reading		Attendance		Risk Ratio	Gender	Ethnicity
		2008	2009	2008	2009	2008	2009	2008		
1	6	775	786	782	811	14	9	0.85	F	W
2	6	778	763	782	785	9	8	0.85	M	W
3	6	792	779	815	834	14	11	0.57	F	W
4	6	829	847	853	851	14	8	0	M	W
5	6	829	838	800	811	11	5	0	M	W
6	6	792	790	801	808	3	6	0.42	F	W
7	6	803	813	807	824	18	11	0.14	M	W
8	6	823	813	839	827	12	4	0.14	F	W
9	6	817	818	796	830	13	7	0.57	F	W
10	6	772	813	810	850	17	12	0.42	M	W
11	6	792	825	815	851	6	11	0.42	F	W
12	7	797	797	819	788	8	8	0.42	M	W
13	7	830	846	838	851	16	16	0.14	F	W
14	7	791	817	814	818	14	4	0.42	M	W
15	7	786	781	796	790	7	6	0.71	M	W
16	7	782	834	794	806	2	5	0.71	F	W
17	7	791	795	814	816	2	4	0.28	M	W
18	7	769	819	811	809	9	6	0.42	M	W
19	7	838	834	822	821	16	1	0.28	M	W
20	7	801	774	804	785	5	4	0.42	M	W
21	7	772	815	762	788	4	7	0.71	M	W
22	7	786	784	796	809	5	2	0.71	M	B
23	7	777	801	809	802	18	11	0.57	M	B
24	7	803	821	806	806	34	29	0.28	M	W
25	7	801	824	822	813	6	6	0.28	M	W
26	7	797	826	800	816	3	5	0.57	M	W
27	7	791	795	806	804	2	1	0.42	F	W
28	7	800	829	825	790	12	6	0.28	M	W
29	7	791	801	811	809	4	4	0.42	F	W
30	7	786	801	796	809	10	0	0.57	M	W
31	8	843	837	830	831	10	11	0.14	M	W
32	8	822	860	836	828	0	3	0.14	M	W
33	8	782	805	804	822	13	8	0.42	F	W
34	8	793	784	792	805	7	11	0.57	M	H
35	8	802	855	811	814	26	18	0.28	F	W
36	8	784	779	816	831	5	10	0.42	M	W

Control Group										
Grade		Math		Reading		Attendance		Risk Ratio	Gender	Ethnicity
		2008	2009	2008	2009	2008	2009	2008		
37	8	791	776	792	817	7	10	0.57	M	W
38	8	827	810	821	807	12	8	0.14	F	W
39	8	822	790	836	831	17	38	0.28	M	W
40	8	840	824	821	838	4	1	0.14	F	W
41	8	837	844	797	819	3	7	0.42	F	W
42	8	840	860	840	838	0	1	0.28	F	W
43	8	815	830	821	828	4	3	0.14	F	W
44	8	843	837	836	837	7	3	0.14	F	W
45	8	827	810	809	825	8	7	0.14	M	W
46	8	837	824	845	850	31	10	0.14	M	W