THE EFFECT OF GROUP COUNSELING INTERVENTION ON THE PERFORMANCE OF RURAL STUDENTS ON THE GEORGIA HIGH SCHOOL GRADUATION TESTS

by

Donna A. Caudell

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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APPROVED BY:

Casey Reason, Ph.D., Committee Chair

Sam C. Smith, Ph.D., Committee Member

Steven McDonald, Ed.D., Committee Member

Scott Watson, Ph.D., Associate Dean, Advanced Programs

ABSTRACT

With an increase in high-stakes testing, educators continue to search for the best methodologies for assisting students in maximizing academic achievement and successful completion of graduation requirements including mandatory tests for high school graduation. At the time of this study, students graduating from Georgia high schools were required to pass five academic subject area tests in order to receive a high school diploma. The Georgia High School Graduation Tests (GHSGT) tested English language arts, math, science, and social studies while the Georgia High School Writing Test (GHSWT) assessed writing. Psychometric theory, social cognitive theory, and cognitive behavioral theory provided the theoretical framework for this study. Students from a rural high school in Georgia comprised the sample. This quantitative study employed a posttest-only control group design with randomization. Students who had failed at least one of the GHSGT were randomly placed into control and treatment groups. Students in the treatment group participated in an 8-session group guidance program, Student Success Skills. Control and treatment groups were compared using Mann-Whitney *U* tests for math, social studies, and English language arts due to abnormal data and small sample sizes. The results of this study found no significant difference between the groups' test scores.

Keywords: exit exams, graduation tests, GHSGT, certificate of attendance, Student Success Skills, group guidance

Dedication

This dissertation is dedicated to my husband and children. My husband, Doug, is the most intelligent and highly practical person I have ever had the privilege to know. Without his unwavering faith and incredible support throughout this process, this dissertation might not have seen completion. My children, Derrick, Dianna, and Dillon, have been my faithful encouragers and wonderful examples of perseverance throughout my dissertation journey.

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I am thankful to God for leading me through this experience. Proverbs 3:6 has been made real to me as I have completed this document. When I started this process, I was unsure of why God was leading me in this direction. As the time has unfolded, He has steadfastly opened and shut doors leading me to knowledge of His perfect plan for me and allowing me to understand why He chose this path.

I am extremely grateful to Dr. Casey Reason for his patient leadership throughout this process. His willingness to answer each question and to keep me on a logical track has been invaluable. Also, to Dr. Steven McDonald to whom I owe many thanks for his help with the methodology part of this dissertation. There were many times I would have faltered without his patient encouragement and explanations of statistical nuances. Additionally, I owe a debt of gratitude to Dr. Sam Smith for his help and willingness to read the many installments of this document and for his intricate attention to detail. They have all provided both support and a sounding board that I have truly valued.

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List of Abbreviations

Adequate Yearly Progress (AYP)

Center on Education Policy (CEP)

Cognitive Behavioral Theory (CBT)

College and Career Ready Performance Index (CCRPI)

End of Course (EOC)

End-of-Course Test (EOCT)

English Learner (EL)

English Language Arts (ELA)

Every Student Succeeds Act (ESSA)

Florida Comprehensive Achievement Test (FCAT)

Georgia Department of Education (GADOE)

Georgia High School Graduation Tests (GHSGT)

Georgia High School Writing Test (GHSWT)

Governor's Office of Student Achievement (GOSA)

Grade Point Average (GPA)

No Child Left Behind (NCLB)

Organisation for Economic Cooperation (OECD)

Programme for International Student Assessment (PISA)

Social-Emotional Learning (SEL)

Statistical Package for the Social Sciences (SPSS)

Student Success Skills (SSS)

CHAPTER ONE: INTRODUCTION

Background

While educators have always been concerned with helping students succeed, the importance of increasing a school's graduation rate has become more urgent with the implementation of the No Child Left Behind Act (NCLB) beginning in 2002 (Swanson, 2004; U.S. Government Accountability Office, 2005). In a nation with an overall dropout rate of almost 25%, schools are under increased scrutiny to improve graduation rates and produce students who are ready for the job market upon completion of high school (Berger, 2000; Bush, 2001; Goertz & Massell, 2005; Stillwell, Sable, & Plotts, 2011; U.S. Department of Education, 2010.). One focus of NCLB was to evaluate student ability, achievement, and performance through the use of high-stakes standardized testing.

Standardized testing is currently used as a measure of achievement and intelligence utilized for entrance into college, employment, college athletics, and graduation from high school (Mathews, 2006; Noble & Sawyer, 2002). NCLB required the use of reading and math scores as part of the formula for determining a school's AYP score. The Every Student Succeeds Act (ESSA) signed by President Obama alleviates many of the restrictions of the NCLB, but still requires the use of standardized test scores as part of the formula for assessing student and school achievement (U.S. Department of Education, n.d.).

Standardized testing is a foundational premise in education that has deep roots in our society. The use of tests began in Imperial China when applicants for government jobs were required to write essays on Confucianism (Mathews, 2006). The use of testing continued, and in the early 1900s educational leaders encouraged school standardization (Sherman & Theobald, 2001; Wiebe, 1967), and began to make attempts at statewide educational standards (Sherman &

Theobald, 2001). The Stanford Binet Intelligence test, which assesses mental ability, was developed to determine appropriate educational placement for children and initiated the current emphasis on standardized testing. In 1914, Frederick Kelly developed multiple-choice questions, which fostered an increase in the use of standardized testing. Standardized testing became so widely used that even immigrants processing through Ellis Island completed a standardized test as part of the process for being allowed into America (Barton, 2010; Jaffe, 1998; Mathews, 2006; Schlenoff, 2015).

Psychologists impacted educational thought as they developed theories that supported the expanded use of testing. Piaget's theories highlighted the development of competencies or benchmarks that could be expected at specific stages in children's lives. Testing for expected age-related competencies became an acceptable part of a student's educational experience (Gray, 1978). Psychometric theories emphasized the importance of measureable skills and intelligence at specific stages of development and further highlighted the expectations that students should meet certain benchmarks to signify normal physical, emotional, and conceptual behavior (Cattell, 1971; Jaffe, 1998).

Current methods of standardized testing can be traced to the theoretical work of Alfred Binet and Raymond Cattell. Their work laid the foundation for measuring mental abilities, as well as academic achievement (Jaffe, 1998; Plucker & Esping, 2014). Cattell used the scientific method to develop a methodology for identifying personality and motivation ("Raymond Bernard Cattell," n.d.).

As educators and psychologists continue to pursue testing as a tool for understanding human development, politicians, parents, institutions of higher learning, and communities have chosen to use testing as a method for measuring academic achievement in schools and students.

Exit exams have become a common approach for measuring academic achievement in high school students.

The use of exit exams became common as part of a state's accountability progress report to measure the adequate yearly progress (AYP) of individual schools, school systems, and state public education departments as required by NCLB (Georgia Department of Education [GADOE], n.d-a; GeorgiaStandards.org, n.d.; Kornhaber, 2004; Simpson, 2009). NCLB required states to close achievement gaps by providing every child with a high quality education. The law mandated that states use standardized testing to increase student performance in reading and math (U.S. Department of Education, n.d.). Students who failed to pass the exit exams were classified as dropouts and were not awarded a high school diploma, regardless of the successful completion of the required high school courses (Downey, 2010; Stillwell et al., 2011). Failure to complete these exams left students with postsecondary status equivalent to that of a high school dropout (Pedraza-Vidamour, 2008; Stillwell et al., 2011; Technical College System of Georgia, 2015). Additionally, students who received a GED or certificates of attendance were classified as dropouts in a state's national reporting data with regard to AYP status (Downey, 2010; Stillwell et al., 2011). Further research indicates that high school dropouts are at increased risk for poverty, social hardships, unemployment, and even incarceration (Sum, Khatiwada, McLaughlin, & Palma, 2009). Little research is available that discusses long-term consequences for students who complete high school, but are classified as dropouts since they have only received a certificate of attendance rather than a high school diploma.

From 1995 until 2015, seniors in the state of Georgia were required to pass the Georgia High School Graduation Tests (GHSGT) in each of four content areas of mathematics, English language arts (ELA), social studies, and science, in addition to the Georgia High School Writing

Test (GHSWT) to obtain a valid high school diploma (GADOE, n.d.-e). Due to this requirement, thousands of Georgia students were denied diplomas and received certificates of attendance instead because they were unable to pass one or more areas of the GHSGT. Longitudinal data collected by the Governor's Office of Student Achievement (GOSA) shows that 2,894 Georgia high school completers in 2009 were awarded certificates of attendance instead of a high school diploma, followed by 2,602 in 2010, and 3,902 students in 2011. Even as the state began to relax the criteria for the GHSGT and the End-of-Course Tests (EOCT), the number of students receiving certificates of attendance remained high. The number of certificates of attendance issued in 2012, 2013, and 2014 were 3,461, 4,536, and 4,120, respectively. These numbers do not include students who received special education diplomas (GOSA, n.d.-a).

In 2011, state departments of education were invited, by the U.S. Department of Education, to submit waivers requesting flexibility in the method used for meeting NCLB goals (U.S. Department of Education, n.d.). Georgia requested a waiver and received approval to implement the College and Career Ready Performance Instrument (CCRPI) as evidence of their accountability (GADOE, n.d.-b).

On December 10, 2015, President Obama signed the ESSA, replacing NCLB. ESSA was designed to give states more flexibility in assessing student achievement. Standardized testing is still required by ESSA, but is used as one of a battery of measures to assess each state's progress in closing academic gaps (U.S. Department of Education, n.d.). With the continuing reliance on standardized testing as a measure of academic achievement, educators must search for successful programs and methods for helping students increase their success rate on high stakes graduation tests (exit exams).

Problem Statement

The problem is a lack of research on interventions designed to help students perform well on standardized tests such as high school exit exams. Much research is available for predictive factors that contribute to low student achievement, including poor attendance and behavior problems (Balfanz, Herzog, & MacIver, 2007; Garriott, 2007; Jerald, 2007). Researchers have also studied student disengagement (Balfanz et al., 2007b), intrinsic motivation (Organisation for Economic Cooperation [OECD], 2007) and early reading problems (Goffreda, Diperna, & Pedersen, 2009; National Reading Panel, 2000; Scarborough, 1998; Scarborough, 2001; Snow, Burns, & Griffin, 1998; Storch & Whitehurst, 2002; Whitehurst & Lonigan, 2001). There is little research, however, that addresses methodologies for helping students successfully complete their high stakes exit exams. Students who fail their exit exams are classified as dropouts and face the same risk factors as students who drop out of school before graduation (Atkinson & Geiser, 2009; Bruce, Getch, & Ziomek-Daigle, 2009).

Between 70% and 90% of students fail their exit exam on the first attempt (McIntosh, 2012). While some states are transitioning away from exit exams, some states are implementing these tests for their students (McIntosh, 2012). Some states, such as Georgia, have replaced their exit exams with other forms of standardized testing as part of their school's academic achievement instrument (GADOE, n.d.-e). The gaps in the literature become quite evident for those searching for empirically supported interventions for students who have failed standardized tests. Whatever the form, standardized testing remains an essential part of the national academic and accountability landscape.

Results from recent research, however, indicate that short-term, empirically-based interventions, in the form of group counseling, academic support, and social frameworks, can

have a significant positive impact on student achievement (Ascher & Maguire, 2007; Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Savitz-Romer & Jager-Hyman, 2009). Brigman et al. (2007) found positive statistical results in the implementation of the Student Success Skills (SSS) program for students taking the Florida Comprehensive Assessment Test (FCAT). The researchers utilized the SSS curriculum (see Appendix A) to provide intervention, via group guidance, for students who had previously failed one or more content areas of the GHSGT.

Purpose Statement

The purpose of this experimental posttest-only control group design with randomization was to determine if the 8-week guidance portion of the Student Success Skills (SSS) program could statistically impact the Georgia High School Graduation Test (GHSGT) scores of students who had previously failed at least one portion of the GHSGT. The independent variable was participation in the SSS program. The dependent variable was student achievement as measured by GHSGT scores.

It was not known if student participation in the SSS program would affect their ability to pass the GHSGT. Randomly selected students were guided through the SSS curriculum in activities that facilitated cognitive and meta-cognitive skills, social skills, and self-management skills. The scores of these treatment group students were compared to the scores of the control group students to determine if the SSS intervention was statistically effective. Due to small sample sizes and abnormal data, the study employed Mann-Whitney *U* tests to determine statistical significance for the null hypotheses.

Significance of the Study

Early intervention has been studied as a strategy for students who struggle with taking

standardized tests. Research indicates that identifying students who exhibit academic risk factors for the purpose of establishing a plan for intervention has been found to be statistically positive in helping students achieve academically (Allensworth & Easton, 2005; Garriott, 2007; Kurleander, Reardon, & Jackson, 2008; Montes & Lehmann, 2004). Jerald (2007) indicates that 80%–85% of students who are at-risk for failing to successfully complete high school exhibit observable signs of educational difficulty and school disengagement prior to entering high school.

With a current national dropout rate of almost 25%, which includes students who received certificates of attendance, educators are charged with raising the graduation rate and exploring multiple options for helping students succeed academically (Stillwell et al., 2011; U.S. Department of Education, 2010). This research, utilizing the SSS curriculum, sought to determine the potential statistical significance of a standardized group intervention process as it impacted students' ability to pass the GHSGT. Specifically, this experiment studied the implementation of a group intervention strategy for the purpose of helping students who had failed to successfully complete one or more content areas of the GHSGT. This study contributes to the research body regarding successful strategies that are available for school personnel to provide intervention for students who have difficulty passing high-stakes exams.

While GHSGT is no longer required for students to receive their diploma in Georgia, other states have implemented and are still using exit exams for their seniors (McIntosh, 2012). Additionally, Georgia schools still administer standardized exams that impact student scores and school performance accountability measures such as CCRPI (GADOE, n.d.-e). This research may be useful for K–12 educators seeking to find effective methods for improving standardized test scores on high stakes tests including high school exit exams. Also, policy makers may find

this study helpful as they develop accountability measures for students and schools.

The rural Georgia school that hosted this study failed to meet AYP for the 2009–2010 and 2010–2011 school years due to the low test scores of the students with disabilities subgroup for both years and a low graduation rate in 2011 (GADOE, 2011). On February 9, 2012, the state of Georgia was granted a waiver from the AYP requirements of NCLB. Under the auspices of this waiver and during the time of this study, Georgia schools were required to meet state standards via a comprehensive rubric called the CCRPI including evaluation of student's scores on the Georgia EOCTs, GHSWT, SAT, ACT, Compass, Advanced Placement exams, and International Baccalaureate exams (GADOE, n.d.-a.). The CCRPI rubric is currently in use and is updated yearly to reflect changes implemented by the Georgia Board of Education. The state of Georgia implemented a new testing system called Georgia Milestones in the spring of 2015 that is a blended criterion-referenced and norm-referenced assessment (GADOE, n.d-e). The CCRPI has been updated to reflect these changes including the use of End of Course (EOC) measures. The school in this study as well as other schools will be able to analyze the results of this study in light of how to best implement the SSS program in order to help students who struggle to pass high stakes exams.

Research Questions

RQ1: Is there a difference in Georgia High School Graduation Test scores in math for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

RQ2: Is there a difference in Georgia High School Graduation Test scores in social studies for students who participated in the group guidance portion of the Student Success Skills

curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

RQ3: Is there a difference in Georgia High School Graduation Test scores in English language arts for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

Null Hypotheses

$H_0$1: There is no significant difference in Georgia High School Graduation Test scores in math for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

$H_0$2: There is no significant difference in Georgia High School Graduation Test scores in social studies for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

$H_0$3: There is no significant difference in Georgia High School Graduation Test scores in English language arts for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

Definitions

1. *Certificate of Attendance* - Students failing to pass the GHSWT and all four of the GHSGT received a certificate of attendance rather than a high school diploma. Students were allowed to retake any failed exam after their graduation date, but were

not awarded a diploma until they successfully completed all exams. Students were allowed unlimited attempts to replace their certificate of attendance with a diploma (GADOE, n.d.-d).

2. *College and Career Ready Performance Index (CCPRI)* - Georgia's school accountability instrument was first utilized in 2014 and seeks to promote college and career readiness in students by assessing their schools on student achievement, student progress, and achievement gap. Schools are rated on a scale of 0–100, with a possibility of earning up to an additional 10 challenge points. The CCRPI is scored on a complex formula accounting for Georgia Milestones EOC scores, participation in a career pathway, number of graduates, SAT and ACT scores, as well as the number of students completing college level classes while still in high school. Additionally, schools can earn points for the number of high school completers, the percentage of underclassmen on track for graduation, and the number of teachers who utilize the state's data system (GADOE, n.d.-a).
3. *End of Course (EOC)* - As part of the Georgia Milestones Assessment System, high school students are required to take EOC exams upon completion of Ninth Grade Literature and Composition, Analytic Geometry, United States History, American Literature and Composition, Geometry, Coordinate Algebra Physical Science, Economics, Algebra I, and Biology. The EOC grade counts as 20% of the student's final score in the course (GADOE, n.d.-e).
4. *End-of-Course Tests (EOCT)* - Students were required to take EOCTs in the academic areas of Physical Science, Biology, Ninth Grade Literature, American Literature, Math I, Math II, United States History, and Economics as the final exam for these

courses. The EOCT scores counted as 15% of the student's overall grade point average (GPA) in the respective course. Beginning in 2013, students who passed the EOCT in a content area could exempt the GHSGT in that content area (GADOE, n.d.-c).

5. *Exit Exams* - Exit exams are minimum competency tests that must be passed before a student can be awarded a high school diploma. The exams are designed to encourage school systems and students to attain a level of academic achievement that allows employers to be confident of the student's level of achievement, (Holme, Richards, Jimmerson, & Cohen, 2010). In the state of Georgia, students who entered grade 9 from July 1, 1991, to June 30, 2011, had to pass both the GHSGT and the GHSWT in order to earn a high school diploma (GADOE, n.d.-d).
6. *Georgia High School Graduation Tests (GHSGT)* –GHSGT were required for students who entered grade 9 from July 1, 1991, to June 30, 2011, in order to demonstrate proficiency in the four content areas of ELA, math, science, and social studies. These exams served as Georgia's exit exam, provided insight into the proficiency of high school students, and helped identify areas in which students needed additional instruction (GADOE, n.d.-d).
7. *Georgia High School Writing Test (GHSWT)* – The GHSWT was an exit exam used to assess writing for students who entered grade 9 from July1, 1991, to June 30, 2011 (GADOE, n.d.-d).
8. *High School Dropout* - In Georgia at the time of this study, a high school dropout was a student who failed to earn a diploma from an accredited high school or who earned a GED. Students who completed their high school course work, but were unable to

pass any of the GHSGT were also classified as dropouts (Downey, 2010; Stillwell et al., 2011).

9. *Student Success Skills (SSS)* – The SSS program is a K–12 program designed as a school counselor-led program that helps student develop cognitive, social, and self-management skills leading to improved academic student performance. The program has classroom, parent, and group guidance components. The program's group guidance component of this program was used for this experiment (Brigman & Campbell, 2003).

Summary

Until 2015, Georgia high school students were required to pass an exit exam, the GHSGT, in order to receive a diploma. Many students across the state failed to pass this high stakes standardized test. Consequently, they were awarded certificates of attendance and considered dropouts. A review of the literature revealed that there is a lack of research on interventions designed to help students perform well on standardized tests such as high school exit exams. The purpose of this experimental posttest-only control group design with randomization was to determine if the 8-week guidance portion of the Student Success Skills (SSS) program could statistically impact the Georgia High School Graduation Test (GHSGT) scores of students who had previously failed at least one portion of the GHSGT. This study will be useful for K–12 educators in search of ways to improve test scores of students who struggle to pass high stakes standardized tests as well as policy makers as they endeavor to develop accountability measures for students and schools. Chapter 2 presents the theoretical framework underpinning the study and a review of the relevant literature.

CHAPTER TWO: LITERATURE REVIEW

Introduction

As educators in the United States continue to work to prepare the next generation for participation in the global market, they face increasing pressure from the public to improve the nation's current graduation rate of just over 75% (Stillwell et al., 2011). NCLB, which was enacted in 2001, required that school systems work toward 100% of their students, regardless of subcategory, meeting or exceeding state minimum proficiency requirements. Student scores for schools and states were measured annually to track progress on ELA scores, math scores, and high school graduation rate. Schools meeting the year's set criteria were identified as having met AYP. Schools not meeting AYP were classified as *needs improvement* and were required to implement measures to increase student test scores and graduation rate (Bush, 2001).

The increasing dependence on testing as a measure of academic rigor and achievement has had a profound effect on the teaching methodologies used by educators. Research results have shown that intervention strategies focused on cognitive abilities, self-management, school climate, promotion of extracurricular activities, and social skills can have positive influence on a student's successful completion of standardized tests (Brigman & Campbell, 2003; Brigman et al., 2007; Bruce et al., 2009; Campbell & Brigman, 2005; Dennis, 2010; Miranda, Webb, Brigman, & Peluso, 2007; Nichols, 2003). Further research by Campbell and Brigman (2005) found that short-term group intervention that focused on cognitive, social, and self-management skills yielded significant improvement in student performance on the FCAT.

Theoretical Background

The theoretical basis for standardized testing can be traced to various philosophies including Piaget's work in cognitive development (Gray, 1978; Jaffe, 1998), the psychometric

theories of Alfred Binet and Raymond Cattell (Cattell, 1971; Jaffe, 1998), and the social cognitive theory espoused by Bandura (1991) and Zimmerman (1989). All of these theories define calculable and quantifiable expectations and identify developmental tasks based on a student's age and educational level.

Cognitive Behavioral Theory (CBT), established by Aaron Beck in the 1960s, borrows from both psychoanalytic theory and behavioral theory to propose that one's thoughts and illogical assumptions can cause one's behavior to be positive or negative. The SSS program used in this experiment is based on CBT as it works to help students establish goals and change thought processes while working to increase academic knowledge as they prepare for exit exams (Brigman et al., 2007).

Cognitive Development Theory

Jean Piaget, a predecessor to psychometric theory, defined stages in cognitive development at which children and adolescents are able to comprehend information and acquire knowledge. Piaget identified age-defined stages and patterns for proper development and stages of cognition (Jaffe, 1998). His work further emphasized the continuous and changing development of a child's expected age-related competencies that could easily be identified as benchmarks in today's educational terminology (Gray, 1978).

Similarly, psychometric theories deal with the statistical measurement of differences in individual's cognitive abilities. According to these theorists, intelligence is quantifiable and measureable. Their work provides the foundational thought that verbal, spatial, and mathematical skills should be relatively standard at certain stages of development and are able to be calculated via standardized means of measurement (Cattell, 1971; Jaffe, 1998).

Psychometric Theory

Alfred Binet and Raymond Cattell further advanced the importance of statistical measurement in psychology and human development. However, Binet, in conjunction with Theodore Simon, also laid the foundation for various versions of standardized testing with the development of a battery of tests designed to measure mental abilities. The Binet-Simon Intelligence Scale was unique in that it measured mental abilities, such as memory and attention, rather than simply testing for specific academic achievement (Jaffe, 1998; Plucker & Esping, 2014). Cattell, influenced by his background in chemistry, further worked to identify the spheres of personality and motivation through the use of the scientific method (Cattell, 1971). The work of these researchers is easily identified as a precursor to today's standards-based assessments.

Social Cognitive Theory

The tenets of the social cognitive theory can be found in the continuing reliance on standardized testing to elicit positive change in academic processes within state and federal departments governing curriculum advancement. The concept that successful learners demonstrate self-regulated learning based on internal and external motivations and choices of behavior can be found in the work of Paul Pintrich, a leading social cognitive theorist, when viewing his three generalizations about the relationship between motivation and self-regulated learning:

- Students must feel confident they can accomplish what needs to be done.
- Students must value and be interested in the required classroom assignments.
- Students who are focused on self-improvement and the goals of learning and understanding are more likely to be self-regulating (Pintrich & DeGroot, 1990).

Zimmerman (1989), building on Pintrich's work, suggested a triadic view of self-

regulation with regard to students' learning, environment, and behavior, indicating that these factors influence an individual's self-monitoring and affect change in self-esteem and personal competence (Bandura, 1991; Zimmerman, 1989). Learners work toward self-regulation as they set personal goals and monitor their own progress toward those objectives. A learner's accomplishments increase his or her feelings of self-efficacy, while focusing on failures undermines personal value (Zimmerman, 1989).

Through the use of external stimuli such as AYP, monitoring of student scores on exit exams and distribution of monetary incentives for schools whose students perform well on tests, governing agencies hope to elicit self-regulating processes within the local school system that will demonstrate increased student performance. Colleges and universities exhibit the same confidence in students' abilities to self-regulate as they work toward their college admissions. Students who continue to take college admissions tests, monitor their scores, work to improve their scores, and retake the tests are seen as exhibiting self-regulating qualities that will make them successful college students.

Cognitive Behavioral Theory

CBT proposes that one's thoughts and illogical assumptions can cause one's behavior and beliefs to be either positive or negative. Following training in Freudian therapies, Aaron Beck and his associates wanted to understand how they could reverse negative thinking in their clients seeking treatment for depression. In his treatment of patients with unipolar depression, Beck felt that maladaptive attitudes and illogical thinking led people to repetitively view themselves and their circumstances in a destructive light. He felt that these consistently harmful thought patterns led to automatic and unrelenting negative thoughts that would flood the client's mind leading to depression.

Beck's treatment initially utilized methods for changing cognitive processes and later incorporated behavior-changing interventions. CBT therapists employ four phases to assist clients in revising their thought patterns. First, the therapist introduces techniques for the patient to increase his activities, working toward improving his mood. Time is spent each week creating a schedule detailing activities for the week to follow.

The second phase of treatment teaches clients to recognize and record their automatic thoughts. They are assigned to bring their list of automatic thoughts to the therapy session and discuss them with the therapist. The job of the therapist is to help the client discover the reality behind their automatic thoughts. The third phase of treatment continues as the therapist helps clients discover the flaws and lack of logic in their negative automatic thoughts and begins to help the person test and challenge their harmful attitudes. The fourth phase of CBT is when the therapist helps clients begin to change their harmful attitudes, replacing them with more positive approaches and behaviors. Overall treatment time for CBT is relatively short in comparison to other types of therapy. CBT treatment ranges from nine to 25 sessions dependent on the patient's diagnosis and the severity of his symptoms (Comer, 2015).

The SSS program utilized in this research experiment is based on the premises of CBT. In their study of CBT interventions appropriate for schools, Zyromski and Edwards (2015) described SSS as "the only empirically supported school-based cognitive behavioral intervention study to directly impact academic achievement" (p. 8). They describe the SSS program as a program that utilizes a CBT approach to help students improve their educational goals, behaviors, and strategies while assisting students in reducing their academic anxiety.

Review of the Related Literature

Historical Background

The history of standardized exams can be traced to 7th century A.D. Imperial China when applicants for government jobs were required to complete essays that included writing poetry and discussing Confucianism. The improvement and expansion of technology and modern inventions, such as the printing press, improved paper manufacturing, personal computers, and the Internet, have fueled the increased use of tests and have continued to be key factors in the growth of standardized testing (Mathews, 2006).

As the American focus in areas such as law, medicine, and manufacturing trended toward standardization, educational leaders also promoted school homogeny during the first two decades of the 1900s, which was part of the Progressive Era (Sherman & Theobald, 2001; Wiebe, 1967). Iowa established the first statewide school-improvement program, marking the first attempt at developing a set of statewide educational standards (Sherman & Theobald, 2001). Atlanta schools implemented standardization in hiring of and tenure for teachers, centralized purchasing methods, and employed curricular practices designed to align schools to the best national practices ("Progressive Era," n.d.).

Horace Mann first advocated standardized testing for the public schools in the form of essays, but the Stanford Binet Intelligence test is credited as the inaugural document that birthed the trend toward today's focus on standardized testing due to its easily definable method for assessing an individual's mental abilities. With the inception of multiple-choice questions by Frederick Kelly in 1914, standardized testing became increasingly prominent as an assessment method. Ellis Island was a foundational testing center where immigrants were given a form of standardized tests as part of the processing and approval procedure for entering America (Barton,

2010; Jaffe, 1998; Mathews, 2006; Schlenoff, 2015).

Today's use of standardized testing has morphed into a measure of learning rather than a measure of intelligence and is utilized, with increasing frequency, for varying educational and noneducational purposes. Admission to college, for the average student, relies heavily on SAT or ACT scores (Mathews, 2006; Noble & Sawyer, 2002). With the implementation of Proposition 48 in 1985, standardized testing has become more critical for students wishing to participate in college athletics, with Division I colleges requiring a minimum of 700 on the SAT combined verbal and math score or a composite ACT score of 17 as well as a minimum 2.0 GPA in academic subjects (Klein & Bell, 1995; Wainer, 2006). NCLB utilized a school's test scores, attendance, and graduation rate in determining a school's AYP status (Berger, 2000; Bush, 2001; Goertz & Massell, 2005; U.S. Department of Education, 2010).

Test scores have also had far reaching effects outside of the educational setting. An IQ cut score was the determining factor in the execution of Jerome Bowden in the 1986 case of Bowden v. Georgia. Jerome Bowden was convicted of murdering two women and sentenced to execution. Eight hours before he was to die on June 18, 1986, Bowden was issued a 90-day stay of execution pending the results of an IQ exam. Bowden's previous IQ score was 59. On the second exam, however, Bowden scored a 65. The State Board of Pardons and Paroles ruled that Bowden's score was high enough to warrant his execution. Bowden was executed on June 24, 1986 (Human Rights Watch, 2001). The resulting public outcry questioned the validity of the Board's decision, which was seen as having been singularly based on a standardized test (Amnesty International, 1996).

Accountability Measures

The overarching dilemma facing both politicians and educators is the need to establish

criteria that puts student achievement in a measurable, yet understandable, form for the stakeholders and taxpayers of the American public educational system. With increasing calls for accountability in the public school arena, educators cannot ignore the fact that taxpayers and politicians rely on tangible data and sets of numbers to make judgments on the progress their schools are making. The utilization of prescriptive testing requirements to identify successful schools, as well as schools that are failing to adequately prepare their students, has been ongoing since the early 1900s (Hartel & Hermon, 2005).

When the Soviet Union successfully launched Sputnik in 1957, Americans began to question the U.S. educational system's ability to produce students who could lead the world in math and sciences. The public began to put increased pressure on the public school system to demonstrate and produce data on student performance (Barton, 2010; Mathews, 2006). The 1954 Brown v. Board of Education, arguably, began the process of providing equal educational opportunities for all students in the American public school system, giving hope to many that the achievement gap between students of varying races and socioeconomic levels would be eliminated (Slavin & Madden, 2006). The U.S. educational system still struggles in its efforts to narrow that achievement gap, and the debate continues over the use of testing as an adequate measure of accountability for student academic success.

Brooks and Miles (2006) stated, "In the United States, 2001's NCLB signaled the beginning of an educational policy era marked by accountability and an emphasis on increasing student achievement" (p. 26). Specifically, NCLB was intended to improve student achievement by delineating the basics of what would be taught, establishing an expected level of performance, constructing an equality of opportunity by coordinating the operations of a district, refocusing the efforts of education on student learning, and alleviating variability by ensuring more

consistency from school system to school system and from state to state. NCLB additionally sought to provide feedback on performance to students and parents, act as a benchmark for expectations, create high expectations, and align instruction to the curriculum (Berger, 2000; Goertz & Massell, 2005). In short, NCLB was intended to raise the standards of academic achievement of students (Bush, 2001).

The premise of NCLB was to establish accountability for educators by focusing on the performance of student cohorts as opposed to evaluating the scores of individual students. Schools were evaluated on the proportion of students in each grade level achieving a defined proficiency. The mandate indicated that the level of competency of various student subgroups within the school was expected to increase each year until all cohorts reached 100% proficiency by the year 2014 (Wiliam, 2010a). Hanushek and Raymond (2005) viewed NCLB as simply a formalization of the move toward standardized testing that has been sweeping from state to state since the early 1990s. ESSA is currently the most widely recognized accountability measure in the public view having replaced NCLB when it was signed into law on December 10, 2015.

Perspectives on Standardized Testing

As can be expected with almost any issue within the educational arena, one can find both proponents and critics of the current trend toward testing as an indicator of student achievement. An area of pervasive dispute between advocates and opponents of increased testing for accountability purposes is whether a standardized test actually measures improved instruction and increased acquisition of knowledge as well as the degree to which test results are affected by other influences that might impact a student's scores.

Some argue that a myriad of external factors that cannot be controlled in the educational environment, such as the racial composition of a school (Hanushek & Raymond, 2005), student

grouping within the school (Figazzolo, 2009), general intelligence, work drive, self-discipline, perseverance, and motivation (Geiser, 2009; Ridgell & Lounsbury, 2004), and even state-specific educational policies (Hanushek & Raymond, 2005) may influence student achievement on standardized tests. Opponents of standardized testing also claim that both the rewards and consequences imposed on schools due to student test scores forces schools to structure their curriculum toward teaching to the test, rather than meeting the individual needs of students. They argue that forcing schools to spend so much time preparing students for tests prevents educators from helping students develop proficiency in necessary skills such as time-management and short-range planning, which are necessary competencies for success in the post-secondary job market (Kitsantas, Winsler, & Huie, 2008; Nodding, 2004). Kornhaber (2004) asserts that the current focus that policymakers have on using standardized testing for attempting to solve many educational problems should be balanced by creating assessments that enable students to successfully function as citizens in varying capacities outside the educational setting.

Heilig (2011) found that high stakes exit testing among English learners (ELs) in Texas impacted not only their academic focus, but also added additional stress, causing some students to drop out of high school because they felt that they would not be able to successfully pass the Texas Assessment of Knowledge and Skills. This research further looked at the impact of exit testing on the trust between parents and the school. Heilig found that parents of ELs tended to implicitly trust that teachers and administrators would do what is best for their children, but the students did not share that trust. Many of the students in this study indicated that focus on preparing for the Texas Assessment of Knowledge and Skills negatively impacted their education. So, while test scores of these EL students were improving, their dropout rates had

increased, with 60% of ELs not graduating in 2007 (Heilig, 2011).

While the majority of research is negative toward standardized testing, Wang, Beckett, and Brown (2006) chose to study both sides of the standardized assessment controversy. Their investigation found that high-stakes assessment can drive and has driven improvements in student achievement in the United States. U.S. students are still lagging behind in skills that are necessary for success in the global market, but Wang et al. (2006) asserted that the changes generated by standardized assessment have produced positive modifications at the school level in learning models, curriculum, and staff development opportunities.

Some researchers argue that the educational system is too reliant on testing as a measure of knowledge achievement (Geiser, 2009; Kornhaber, 2004; Nodding, 2004; Volger, 2008; Wiliam, 2010b) rather than implementing a variety of assessment types. Further questions have been raised regarding the current high-stakes testing required by NCLB and whether it has benefitted or harmed students. Researchers have raised questions as to whether this type of high-stakes testing moves educators toward teaching to the test and away from teaching students to think critically (Nodding, 2004). Some argued that NCLB was the equivalent of declaring academic martial law forcing schools to focus on raising student test scores, while neglecting other important school factors that were more difficult to measure ("Interview: Beyond 'the stone age' of testing," 2004). Even the widely accepted SAT is charged with having a negative impact on poor and minority college applicants when used as a criterion for college admissions (Geiser, 2009; Zwick & Himelfarb, 2011). Other researchers maintain that high-stakes testing is punitive in nature and fails to adequately test students' in-depth knowledge and ability to function in the world. The argument is made that more focus must be placed on helping students make the transition from high school to the workplace or to postsecondary education, rather than

requiring schools to expend so much time and energy on raising test scores (Conely, 2001; Kornhaber, 2004; Nodding, 2004).

Those who disagreed with the current focus on test scores argued that standardized testing is highly utilized because policymakers see it as a simple way to ensure that students are taught a standard curriculum and view numerical test results as a way to prove to their constituents that students are achieving at acceptable levels. It can be argued, however, that the impact of testing on student learning has yet to be adequately established. Volger (2008) along with Firestone and Martinez (2007) reported significant uncertainty regarding the impact that standardized testing has on actual classroom experience and instructional practice, while Pintrich (1988) cautioned that any assessment program designed to improve instruction should be based on strong theoretical models of student learning, motivation, and instruction rather than political expediency.

Conversely, Phelps (2005) provided data promoting testing as a motivator for both students and educators. He indicated that using test scores as stimuli for receiving awards, whether monetary for school systems and schools, or more tangible prizes, as in the awarding of a high school diploma to seniors, worked as inspiration for harder and more focused work for teachers and students alike. Wiliam (2010a) concluded that "it is only through assessment that we can find out whether instruction has had its intended effect" (p. 107). The fundamental thought behind the entirety of this reform is that "schools will have to show through testing that achievement is going up for all students and for those across lines of color, disability, income, and English proficiency" (Kornhaber, 2004).

Both opponents and promoters of high-stakes testing cite teaching to the test as a negative effect of the standardized assessment process. In their research on the effects of testing in both

Maine and Maryland school systems, Firestone, Mayrowetz, and Fairman (1998) found that "the effects of state testing on teaching may be overrated by both advocates and opponents of such policies" (p. 111). Their research indicated that state assessment programs had more impact on reorganizing learning opportunities for educators than impacting specific teaching behaviors and curriculum changes within the classroom. Vogler (2008) found that 83.2 % of responding Mississippi educators reported spending some portion of their instructional hours preparing students for graduation exams. Additionally, 61.9% of the studied educators from Mississippi indicated that they spent at least 20% of their school year prepping their students for standardized tests.

Other research studies view achievement from a differing perspective and indicate that factors such as general intelligence, work drive, self-discipline, perseverance, and motivation are the strongest predictors of student success (Geiser, 2009; Ridgell & Lounsbury, 2004). Kitsantas et al. (2008) found that students exhibiting strong time-management skills and short-range planning ability were more successful in the postsecondary setting. Focusing so much of the school's effort on testing and achieving a certain level of scores in order to meet state and federal standards is viewed by many as preventing schools from helping students develop necessary life management skills which are necessary for success in postsecondary education and careers. Kornhaber (2004) argued that the creation of assessments that enable students to successfully function outside of the school setting may be more beneficial to students than the current political focus on using standardized testing to attempt to solve educational problems.

Even at the federal level, opinions on the best methods for measuring student achievement continue to evolve. On January 31, 2010, *The New York Times* reported that the Obama administration recommended massive changes to the NCLB legislation. While pledging

to maintain the spirit of the law, the White House sought to implement changes in the funding formulas based on a school's academic progress via as yet unnamed assessments rather than assessing AYP through standardized testing. The plan included recognizing schools that were succeeding and utilizing funds to improve or close schools that were unsuccessful in closing the academic gap (Dillon, 2010). The goal of the proposed reform was for students to be college or career ready upon earning a high school diploma (Dillon, 2010). Funding for the accompanying assessments would have been provided through Race to the Top, a grant program for states working to provide innovative reforms to increase student achievement and work readiness (U.S. Department of Education, 2009).

While the 2002 reform proposal was never passed into law, continuing efforts were offered for the revision of NCLB. One revision offered in the 2015 legislative session sought to reduce some of the federal control over student achievement. Those who opposed this measure indicated that the proposed legislation also decreased federal funding for educational programs and argued that states may not continue their efforts for student achievement without federal oversight (Executive Office of the President, 2015).

Regardless of arguments on both sides of the political debate, it is clear that student achievement and the increasing dropout rate is an educational factor that warrants the concern of educators, parents, and politicians alike. As the debate continues regarding the best way to provide quality, measurable educational services to all children, many educators feel caught in a vortex of negative public opinion and increasingly stringent controls and expectations from the state and federal levels.

Success on standardized tests. While many researchers have conducted studies on the overall reliability and broad educational effects of standardized testing, little research targets

specific interventions for student success on high school exit exams. Studies have been done in California, Indiana, Tennessee, Georgia, and Florida that focus on high school exit exams (Brigman et al., 2007; Bruce et al., 2009; Dennis, 2010; Kurleander et al., 2008; Nichols, 2003; Pedraza-Vidamour, 2008). However, three of the research projects focused on finding predictive factors for student success on standardized tests.

In searching for predictive factors for successful completion of the California High School Exit Examination, Kurleander et al. (2008) found that students' eighth grade Algebra I grades, in combination with their eleventh grade GPAs, was a strong forecaster of potential failure on the California High School Exit Examination for first-time test takers, especially when viewed in light of students' socioeconomic status. Additionally, their research revealed that students scoring significantly below average on other standardized California assessments had very low rates of passing the CAHSEE on their first attempt. This research corroborated the results of a study conducted by Silver, Saunders, and Zarate (2008) who found that test scores at every middle school level were predictive of successful high school graduation.

Similarly, Nichols (2003), in an effort to describe students who failed to pass Indiana's ELA and mathematics exit exams, examined students' ninth, eighth, sixth, and third grade standardized test results, along with their attendance and GPAs. This study found strong predictive correlations between English and math achievement on standardized test scores, high absenteeism (indicative of lack of student engagement), elementary and middle school grades, and failure on high school exit exams.

Dennis (2010) utilized testing data in conjunction with other factors to predict overall student academic success in the class. She studied the criterion-referenced test scores from the Tennessee Comprehensive Assessment Program, along with additional assessments that

measured “phonemic awareness, phonics, fluency, vocabulary, and comprehension skills” (p. 285) to determine core reading weaknesses for her sixth grade students. Through the use of the combined data from these appraisals, she was able to target her students’ unique areas of weakness in relation to their reading achievement so that she could create interventions within her classroom for helping her students increase their academic achievement.

Standards-based assessments. Testing in the 1980s and 1990s utilized the concept of assessment of authentic student work. Student portfolios were often the chosen method for assessment and proved to have a positive impact on student learning. This type of appraisal, however, proved to be costly and difficult to establish reliability in traditional psychometric terms (Wiliam, 2010a). So the pendulum swung back toward an easier form of assessment measurement.

In the last century, criterion-referenced testing, which is designed to measure specific knowledge of a particular set of information and skills, has become the standard for measuring student success on multiple educational fronts and is becoming the standard for progression to the next grade or educational level in many school systems nationwide (Atkinson & Geiser, 2009; FairTest, 2007). Twenty-six states require some form of exit exam as a criterion for issuing diplomas to high school graduates (GreatSchools Staff, n.d.; Pytel, 2007). College admissions testing has grown exponentially (Atkinson & Geiser, 2009) with most colleges requiring scores from the SAT or ACT for admission to their institutions. Even technical colleges now require students to attain set scores on the ASSET or COMPASS tests for admission to various programs in the curriculum (Technical College System of Georgia, 2015).

High School Exit Exams

National trends for exit exams. The significance of researching methods for helping

students successfully complete standardized tests becomes evident when viewing the ever-changing landscape of exit exam testing in the public school system. The most recent report from the Center on Education Policy (CEP) highlights the current status and expected changes in testing in American schools (McIntosh, 2012). The report found that almost 70% of students across the U.S. continue to be impacted by exit testing. While four states, including Georgia, are phasing out, many states, including Georgia, are transitioning to EOC exams, which are typically more closely aligned with the Common Core State Standards.

Many states are now using, or plan to use, exit exams as evidence of college and career readiness. In the CEP report, Georgia indicated that its high school exit exam was intended to assess college and career readiness for its high school graduates. However, it is interesting to note that 17 of the states responding to this report indicated that scores from their high school exit exams are not used in college decisions about student admission, while other states either did not know that information or did not confirm it for this report (McIntosh, 2012).

The report also indicated that 25 states require students to pass an exit exam in order to receive a high school diploma with Rhode Island planning to implement an exit exam for 2014 graduates (McIntosh, 2012). Most schools use either a comprehensive or EOC exam. A comprehensive exam is typically standards-based and administered in the student's 10th or 11th grade year. The tests vary from state to state in the number of subject area tests that comprise the overall exit exam. States typically test from one to four academic areas. All states test students in some form of ELA (reading, writing, etc.) and most states assess students' math skills on their exit exam. Some states include science and social studies as part of their test battery.

EOC exams are content area tests given on completion of a specified academic course. Some states require that students pass the EOC in specified content areas to earn a diploma,

while other states do not require a passing grade but count the EOC as a percentage of a student's course average. Two states, Georgia and South Carolina, were using both types of exams simultaneously at the time of the CEP report (McIntosh, 2012).

Nationally, between 70% and 90% of students fail to pass their high school exit exam on the first attempt. Students who initially fail exit exam(s) are typically provided multiple opportunities to retake the test. States offer varied retake opportunities before a student's date of graduation. Some states offer unlimited opportunities to reattempt the test, while others allow only two additional attempts. Most states offer additional testing opportunities through the summer and during the school year until the time of the student's graduation (McIntosh, 2012). The state of Georgia allowed students to continue to take the test after the date of graduation, with the possibility of unlimited attempts (GADOE, n.d.-d). Twenty-two states offer alternate paths to graduation for students who cannot pass the high school exit exam. Several states offer alternative paths to graduation for students with disabilities and language issues.

Some states are moving away from their exit exam policies. Tennessee, North Carolina, Alabama, and most recently Georgia have transitioned from exit exams to EOCs as their form of student assessment (McIntosh, 2012). Over the course of this research, Georgia allowed the EOCT in any academic area to substitute for the exit exam in the same academic area as an alternate path for graduation (GADOE, n.d.-d). Twelve states allow students to take an alternative assessment to substitute SAT or ACT scores for failing exit exam scores (McIntosh, 2012). Georgia and six other states allowed students to appeal their failing test scores after meeting specific criteria (McIntosh, 2012). In 2015, legislation was passed that allowed Georgia students who had failed any portion of their exit exam, the GHSGT, to submit an appeal to their local school board. Upon verification that the student has completed all coursework and has only

been denied a diploma due to failing test scores on the GHSGT, the student is awarded a high school diploma (GADOE, n.d.-d). Similarly, Texas Senate bill 149, enacted in May 2015, allows students in the graduating classes of 2015, 2016, and 2017 to receive their diplomas if they only fail one of their three exit exams. As expected, these retroactive measures have opponents who feel that the policies are reducing the rigor required for earning a high school diploma. Much of the dispute comes from politicians who feel that allowing students to have a diploma without having passed all of the graduation tests essentially reduces the significance of having earned a high school diploma (Gewertz, 2016).

Another area of concern with the current changes in exit exam practices is the capricious nature of the literature surrounding this subject. Baker and Lang (2013) stated that, "The existing literature reaches inconsistent conclusions about the consequences of exit exams" (p. 7). They found that exit exams had very little impact on graduation rates, employment, or wage, but did have a small, implied impact on future incarcerations. Hemelt and Marcotte (2013) found that high school exit exams increased the dropout rates for seniors, especially among African-American students. Their research also indicated an increase in female dropouts for states with high school exit exams. Papay, Murnane, and Willett (2014) found that students who failed their high school exit exam the first time they attempted it were less likely to attend a post-secondary institution.

It is evident that the landscape of high school exit exam tests appear to be ever-changing, with varying opinions on what is right or wrong with exit exam policies. McIntosh (2012) addressed the frequent testing changes in state policy as she described her data collection methodology of having states verify and respond to surveys and state profiles for the report. In her caveat she stated, "However, because events in this field move quickly some policies will

undoubtedly have changed soon after publication of this report" (McIntosh, 2012, p. 5). An example of the frequent change in testing policy as indicated by McIntosh can be found in the timeline of modification in Georgia's testing program from the beginning of the exit exam program to present.

History of exit exams in Georgia. Exit testing in Georgia has undergone many changes in the last three decades. In the 1980s, the Basic Skills Test was implemented as a form of exit exam. For students entering ninth grade in 1991, however, students' eligibility to graduate was based on successful completion of the newly implemented GHSGT and GHSWT, a battery of tests in math, ELA, science, social studies, and writing. The tests were based on the state's Quality Core Curriculum (GADOE, n.d-d).

The A+ Educational Reform Act of 2000 mandated the additional implementation of EOCTs in Algebra I, Algebra II, Physical Science, Biology, U.S. History, Economics, Ninth Grade Literature, and American literature. Students were required to take these tests, but their scores did not greatly impact their course grade until 2003, when the EOCT score was counted for the first time as 15% of the student's final grade in the specified course (GADOE, n.d-c). In 2004, the state of Georgia began transitioning the GHSGT to reflect the newly implemented Georgia Performance Standards. The requirement for passing all five tests remained the same under the new performance standards (GeorgiaStandards.org, n.d.).

High school math courses in the state of Georgia were changed with the incoming ninth graders of 2008 to Math I, Math II, Math III, and Math IV to reflect a combined curriculum of Algebra, Geometry, and Statistics in sequential levels for each course. The EOCTs for math were changed to reflect the new math curriculum (GADOE, n.d.-b).

In April of 2011, the Georgia State Board of Education ruled that students entering ninth

grade that year would no longer be required to pass all of the four academic GHSGTs if they were able to demonstrate proficiency in an equivalent academic area by passing one of the two EOCTs in that academic group. This ruling allowed students to meet their exit exam requirement by successfully completing the GHSGT or an EOCT in math, ELA, science, or social studies. Under the new ruling, EOCT scores counted 15% of the student's final grade in that academic course. All students, however, were still required to pass the GHSWT. This change was made retroactive so that all students at that time could use either the GHSGT or the EOCT to satisfy their exit exam requirement (GADOE, n.d.-e). An additional change was made requiring the EOCT grade to count 20% for those students who entered ninth grade after July 1, 2011 (GADOE, n.d.-b).

With the incoming ninth graders in 2012, the state of Georgia transitioned to the Common Core Curriculum. The math courses were changed to reflect Common Core standards, and students began taking the EOCT in Coordinate Algebra I and Analytic Geometry. The EOCT continued to count as 20% of a student's final grade in academic classes requiring an EOCT (GADOE, n.d.-a; Common Core Standards Initiative, 2009).

With the incoming sixth graders of 2014, the state of Georgia is implementing another change in its testing landscape, the Georgia Milestones Assessment System. According to the GADOE website, Georgia Milestones currently consists of both end-of-grade (grades 3–8) and end-of-course (grades 9–12) measures. The EOC assessments include Ninth Grade Literature and Composition, American Literature and Composition, Coordinate Algebra, Analytic Geometry, Physical Science, Biology, U.S. History, and Economics (GADOE, n.d-e).

Even as the state of Georgia is implementing on-going modifications to its current assessment program, it joins other states in simultaneously making ex post facto changes to

previous assessments. Georgia House Bill 91, enacted in March 2015, allows students to petition their school district to receive their diplomas. Students are eligible to petition for their diplomas if they have passed all required coursework to graduate and were previously denied a diploma solely on the basis of having failed one or more graduation tests (GADOE, n.d.-d). Since the passage of this bill, Georgia has granted more than 17,000 diplomas to former nongraduates and the numbers continue to rise for students who are receiving diplomas years after completing high school (Gewertz, 2016).

It is evident that the face of testing has changed multiple times in the state of Georgia and continues to evolve throughout the nation. What has remained static, however, is the fact that standardized testing continues to be a critical assessment factor for student and school accountability. As states transitions from the NCLB accountability measure known as AYP to new accountability methods.

In Georgia's current accountability instrument, the CCRPI, the importance of test scores continues to be evident. The new assessment tool is comprised of a rubric with multiple factors. A significant area of the rubric evaluates students' scores on the Georgia EOCs, SAT, ACT, Compass, Advanced Placement exams, and International Baccalaureate exams (GADOE, n.d-a). Implementing methodologies to assist students in successfully completing these standardized exams will assist students as they progress toward their postsecondary education, as well as helping the school perform well as it seeks to meet state standards.

Georgia's graduation assessments. At the time of this study, the state of Georgia utilized two forms of criterion-referenced testing, the GHSGT and the EOCT, to assess student progress and determine eligibility for graduation from high school (GADOE, n.d.-g; GADOE, 2011; Simpson, 2009). Seniors were ineligible for a diploma until they were able to pass either

an EOCT or a GHSGT in the academic areas of math, ELA, science, and social studies. Students' scores on the GHSGT functioned as the dependent variable for this experimental study. More information regarding the GHSGT and EOCT is located in Chapter 3.

High School Dropouts

In the current global society, high school students are expected to emerge from their late teen years educated and ready to successfully enter post-secondary education or the job market (Balfanz, 2008). The minimum expectation is that each high school student will earn a high school diploma. However, the national high school graduation rate is currently 81%, indicating about one fifth of the U.S. population currently fails to achieve a diploma during their high school experience (U.S. Department of Education, 2015).

Minorities were disproportionately represented in these statistics, with Blacks and Hispanics having graduation rates of only 61.5% and 26.35%, respectively. In the same time period, the state of Georgia had 20,135 dropouts, with only 55.4% of Hispanic students graduating. Students who received certificates of attendance or a GED were not classified as graduates (Downey, 2010; Stillwell et al., 2011). According to the 2009 State of Georgia Report Card, students receiving certificates of attendance instead of high school diplomas in 2009 numbered 2,894 out of 93,790 high school completers (GOSA, n.d.-a).

According to Swanson (2004), there is a continued downturn in graduation rates nationwide. In 2010, one in three seniors failed to earn a high school diploma, with minorities and disadvantaged students comprising a large proportion of that group. Swanson found that despite some positive increases in graduation rates between the late 1990s and 2005, the national graduation rate stood at the same level it was in the 1960s.

Surprisingly, 25% of the 14,000 school districts in the U.S. account for more than

250,000 nongraduates. These school districts are typically large city districts and countywide systems. The nation's largest school system, the New York City Public School System, reports the largest number of dropouts–over 44,000 students each year (Swanson, 2004). While much research has been done on predictive factors for high school dropouts, little research is available that investigates intervention methodologies for students who are at risk for failing to successfully complete their high school exit exams.

Factors That Influence Student Achievement

Much research can be found, with differing results, on the best methodology for increasing student achievement. In his research on the validity of using standardized testing to determine the quality of a school's educational program, Wiliam (2010a) found that variation in educational setting and practices yielded little difference in overall test scores. He purported that understanding the extent to which differences in test scores represent differences in the quality of a student's education (construct relevant variance) rather than varying factors, such as the amount of parental support and differences in achievement levels of students prior to entering the school system (construct-irrelevant variance) is critical in evaluating a school's overall effectiveness.

Isaacson (2009), however, argued that raising the standards in American schools must be accomplished through a set of unambiguous, definable standards that are accompanied by assessments that determine whether those standards have been reached. He asserted that the current public school system is encumbered by confused and disjointed standards that are dependent on one's state or local interpretation. Many states actually lowered their standards in order to comply with federal requirements (Isaacson, 2009). This arena of thought has led to the increased involvement of various organizations voicing their opinions on the best methods for determining appropriate national standards for academics in the public school setting.

Regardless of one's philosophical viewpoint on national standards and high-stakes testing or on the superior methodology for increasing student academic and work readiness, the fact that American student achievement has declined in the last forty years is undeniable. In a 2006 international assessment of 30 countries, American 15-year olds plummeted to a rank of 25 in mathematics, 15 in reading, and 21 in science. Swanson (2004) reported that, nationally, one third (3.1 million) of the members of the 2010 high school graduating class failed to earn a diploma. Statistics also revealed that college and university graduation rates dropped to 14th in 2006, with the United States holding the second highest college dropout rate of 27 countries in that same year (Jerald, 2008). Questions remain, however, as to the best methods for implementing educational reform and the most accurate means of assessing student achievement. Whether the emphasis will remain on standardized testing or shift to another type of assessment, it is most likely that students will continue to be tested in some way to ascertain their level of achievement.

Varying federal and international agencies have conducted research, written reports, and promoted reform measures—all aimed at identifying causes and cures for low student achievement and work readiness. In 2000, the OECD investigated the relationship between student learning and other factors that may have an influence on achievement by researching the preparedness of young adults for the work force. The OECD authorized a long-term study, Programme for International Student Assessment (PISA), to investigate students' (a) ability to analyze, reason, and communicate, and (b) capacity for lifetime learning (OECD, 2000; Wiliam, 2010a).

Utilizing a standardized test administered in three-year cycles, PISA tested students from 57 countries in reading, math, and science. Correlating student performance indicators with

nonacademic factors such as motivation, self-efficacy, personal value, enjoyment of science, and student optimism, the data from this assessment suggested that nations with higher national incomes performed better in science and that parental attitudes toward education were positively significant for student learning (Figazzolo, 2009; MacGaw, 2008; OECD, n.d.).

Similarly, Hanushek and Raymond (2005) suggested that the racial composition of a school may influence student achievement. Other research indicated that a complex combination of factors such as a student's family and school experiences, race, socioeconomic status, and GPA, along with individual circumstances, have been found to be indicative of a student's overall success (Atkinson & Geiser, 2009; Bruce et al., 2009; Dryfoos, 1990; Franklin, 1992; Geiser, 2009; Montes & Lehmann, 2004). Other researchers found that failing classes in middle school and poor attendance are strong predictors for poor student achievement as well as indicators of the lack of student engagement in school (Balfanz et al., 2007a, 2007b; Bridgeland, Diluilio, & Morison, 2006).

Other research has focused on whether or not increasing state and school accountability factors has a positive impact on student achievement. Hanushek and Raymond (2005) found that the Black–White gap actually increased from 0.39 to 0.52 with the implementation of state accountability measures, while the Hispanic–White achievement gap decreased from 0.63 to 0.44. Wiliam (2010a) found that variation in educational setting and practices yielded little difference in overall student achievement.

Some agencies argue that the implementation of rewards and sanctions yields a positive effect on student achievement. In a 2002 report, the National Alliance of Business stated that "it is increasingly clear to business leaders that the public education system is simply not going to respond sufficiently to reformers without incentives to perform at high levels" (p. 8). The

implementation of rewards and incentives, such as merit pay, administrative bonuses, scholarships based on achievement, and graduation tests are advocated by the National Business Alliance as viable methods for encouraging higher student achievement (National Alliance of Business, 2000).

Hanushek and Raymond (2005) concluded that federal and state accountability measures "lead to overall improvements in student performance on National Assessment of Educational Progress mathematics and reading tests, but they do not uniformly meet the objective of closing achievement gaps" (p. 314). They suggested conducting more research determine the causal effects of rewards and sanctions for states and educators with regard to the results of student achievement via standardized testing.

Predicting Student Success

High school dropouts are less likely to find employment and currently have jobless rates exceeding 50%. Their earnings are significantly lower than that of their peers who graduated with high school diplomas. They face lower earning potential, higher unemployment, a higher risk of poverty, and an increased risk of incarceration. Female dropouts are 6 times more likely than their college-educated peers to become mothers at a young age, 9 times more likely to be single mothers, and are more likely to experience social hardships (Sum, Khatiwada, McLaughlin, & Palma, 2009). Students who complete all of their high school coursework, but fail to complete their exit exams face the same consequences as students who drop out of high school (National Center for Education Statistics, 2011; Pedraza-Vidamour, 2008; Technical College System of Georgia, 2015).

Research indicates that failing to finish high school can be associated with a complex combination of risk factors involving a student's family and school experiences, along with

individual circumstances and potential risk factors (Dryfoos, 1990; Franklin, 1992; Montes & Lehmann, 2004). Factors such as race, socioeconomics status, gender, and GPA have been found to be indicative of a student's overall success (Atkinson & Geiser, 2009; Bruce et al., 2009; Geiser, 2009; Silverstein, 2000).

NCLB charges educators with the task of raising the graduation rate for schools in order to meet the mandated AYP requirements (U. S. Department of Education, n.d.). Research suggests that utilizing predictive factors and group intervention strategies for students who are at-risk for not graduating from high school are effective in reducing the dropout rate (Allensworth & Easton, 2005; Brigman & Campbell, 2003; Garriott, 2007; Miranda et al., 2007; Montes & Lehmann, 2004). Factors such as behavior problems, failing grades in math, failing grades in English, and poor attendance have been found to be strong predictors of future dropout risk, as well as indicators of the lack of student engagement in school (Balfanz et al., 2007a, 2007b; Bridgeland et al., 2006; Garriott, 2007).

The primary purpose of identifying students at-risk for dropping out prematurely or not meeting graduation requirements is to target students for early intervention strategies (Kurleander et al., 2008). Jerald (2007) indicated that dropping out of school is easily predictable for 80–85% of students who leave high school without graduating. Identifying students who are disengaged from the school environment and providing intervention strategies can assist them with completing the myriad of requirements for graduation (Campbell & Brigman, 2005; Jerald, 2007; Spears, 2008).

While a student's GPA continues to be statistically significant as the most reliable indicator for students' success in postsecondary education (Atkinson & Geiser, 2009; Burton & Ramist, 2001; Geiser, 2009; Gwynne, Lesnick, Hart, & Allensworth, 2009), the search for other

predictive risk factors to determine students' potential for academic failure is abundantly available in the literature. Predictive factors for student achievement have been studied in physical education (Lacy & LaMaster, 1996), reading (Morris, Bloodgood, & Perney, 2003; Snow et al., 1998), disengaged and maladjusted students (Balfanz et al., 2007b; Janosz, LeBlanc, Boulerice, & Tremblay, 2000; Simons-Morton & Chen, 2009), behavior problems (Balfanz et al., 2007b; Garriott, 2007), failing classes (Balfanz et al., 2007b; Garriott, 2007), and poor attendance (Jerald, 2007). Researchers have also found a significant predictive correlation between early academic factors, such as achievement in middle school math and English classes, standardized testing skills, and student performance on state exit exams (National Center for Education Statistics, 1992; Nichols, 2003).

At the elementary level, predictor variables that determine early reading difficulties have been investigated (Goffreda et al., 2009; National Reading Panel, 2000; Scarborough, 1998; Scarborough, 2001; Snow et al., 1998; Storch & Whitehurst, 2002; Whitehurst & Lonigan, 2001) for the purpose of providing early intervention to help students get their reading skills up to grade level. Morris et al. (2003) found that first and second grade reading achievement could be effectively predicted in the middle of students' kindergarten year. Balfanz et al. (2007b) concluded that 60% of students who would fail to graduate could be identified in the sixth grade by observing their attendance, behavior, and grades in English and mathematics.

After academic achievement, the school attendance rate proves to be the factor with the highest correlation with students not graduating from high school. Poor attendance is an indicator of a student's disengagement from school and has been found to be strongly predictive of a student's probability for becoming a dropout (Allensworth & Easton, 2007; Balfanz, 2009; Christle, Jolivette, & Nelson, 2007; Neild & Balfanz, 2006; Silver et al., 2008).

Research studies indicate that it is important to consider motivational factors, although more difficult to quantifiably assess, when attempting to find variables for student success in academics. Intrinsic motivation, self-regulated learning, and a students' ability to value their learning goals are significant predictive variables in their ability and desire to successfully perform academic tasks (Amrein & Berliner, 2002; Barr & Dreeban, 1991; Hamilton & Akhter, 2009; Pintrich & DeGroot, 1990). Intrinsic motivation has been found to correlate (0.88) with a student's achievement in science (OECD, 2007).

Students' scores on high-stakes tests are intended to be used as motivators for both students and educators. Students who fail to adequately perform on tests may be denied a high school diploma or admission to the postsecondary institution of their choice (Pedraza-Vidamour, 2008; Technical College System of Georgia, 2015). However, some research studies have indicated that test scores fail to provide positive motivation for student achievement. Instead, some students view high-stakes testing as an insurmountable task. Many of these students assume that they will never be able to pass their exit exams and subsequently choose to drop out of school rather than face failure (Heilig, 2011).

Educators and schools are held accountable for test scores with financial consequences and loss of autonomy in directing their school's educational practices resulting from poor performance (GADOE, n.d-a; Phelps, 2005). Both intrinsic and extrinsic motivation, along with factors such as perseverance, self-discipline, and work drive, should be considered by educators and researchers looking for ways to help students successfully complete their high school graduation goals and, at the same time, raise graduation rates and attain accountability standards.

Cognitive Skills. The integral relationship that exists between cognitive skills and academic achievement is a generally accepted concept by those who work with children and

adolescents. Literature identifies working memory capacity, processing speed, and spatial ability as specific cognitive abilities that impact student achievement (Conway, Conwan, Bunting, Therriault, & Minkoff, 2002; Rohde & Thompson, 2007). While the relationship is acknowledged, the determination of specific cognitive factors that may have a causal effect on academic achievement is still a topic open to research.

Luo, Thompson, and Dettermen (2003), utilizing the Cognitive Abilities Test, the Weschler Intelligence Scale, and the Metropolitan Achievement Test, found that processing speed was a causal factor in positive correlation between intelligence and academic performance in children and preteens. In a replication of Luo et al.'s 2003 research, Rohde and Thompson (2007) found that general cognitive ability, spatial ability, and perceptual speed positively contributed to mathematical achievement in young adult males, as measured by SAT math scores; however, their research further indicated that general cognitive ability measures are more accurate predictors of academic achievement than individual measures of working memory, spatial abilities, and processing speed.

Social Skills. The impact that a student's social skills have on his or her ability to feel connected in the school setting has long been noted by those who work regularly with students. Research, however, also indicates that social skills can also considerably impact a student's overall academic achievement. Malecki and Elliott (2002) found that social skills were statistically significant predictors of academic competence and academic achievement. Similarly, Wentzel (1994) concluded that students with high social responsibility goals were statistically more likely to post higher standardized test scores and GPAs.

Proponents of social-emotional learning (SEL) have identified four crucial areas that relate to academic competence: self-awareness, self-management, relationship skills, and

responsible decision-making (Jones & Bouffard, 2012). Research studies indicate that SEL positively impacts academic performance, as well as other personal/social aspects of life (Durlak & Weissberg, 2011; Zins, Weissberg, Wang, & Walberg, 2004). In a meta-analysis of over 200 studies of SEL-type programs, Durlak and Weissberg (2007) found that academic performance is positively affected by the implementation of programs that work to improve relational/emotional aspects of student learning such as school climate, self-esteem, social-emotional skills, and school bonding. Other meta-analytical research found that programs focusing on student's personal/social skills positively impacted participants' standardized test scores at a standard mean difference of 0.31 (Durlak, Weissberg, & Pachan, 2010). Similarly in a meta-analysis of 370 out-of-school programs, Lauer et al. (2006) found that programs with a combination of academic and social components had a statistically positive effect on students' mathematics and reading scores. Other research studies indicated that programs with counseling components had statistically positive effects on reading and mathematics achievement for high school students (Brigman & Campbell, 2003; Bruce et al., 2009; Campbell & Brigman, 2005).

Self-Management and Motivation. The development of competent management skills can also have a direct impact on a student's overall performance in the academic arena. Students who are better able to manage multiple aspects of their academic world and who exhibit intrinsic self-efficacy skills are usually able to better perform in school. Research studies also indicate that students with better self-management skills, self-efficacy, and motivation perform better on standardized academic assessments (Abd-El-Fattah, 2010; Garrison, 1997; Pintrich & DeGroot, 1990).

Garrison (1997) defines self-management as one's focus on task control issues. Self-management is also related to the social and behavioral implementation of learning as defined by

one's external activities associated with the learning process. One evidences self-management in the process of implementing learning goals and management of learning resources. Self-management of the learning process has been found to strengthen meaningful, long-term learning for students and has been found positively linked to the concept of self-regulation and motivation (Garrison, 1997; Pintrich & DeGroot, 1990).

Self-management, motivation, and self-efficacy are viewed as integral concepts in much of the research on student achievement (Abd-El-Fattah, 2010; Garrison, 1997; Pintrich & DeGroot, 1990). Self-management was found to be predictive of self-monitoring and motivation in college freshmen education students since an elevated sense of responsibility on the part of the learner yields a greater responsibility in the learning process. Additionally, motivation was found to positively influence student achievement by building a sense of responsibility for one's own learning process (Abd-El-Fattah, 2010).

Many researchers have further cited student motivation as a significant predictor of student failure or success (Amrein & Berliner, 2002; Barr & Dreeban, 1991). Paul Pintrich (1988) found a significant relationship between students' motivation and self-regulated learning, citing the need for students to value and be interested in their learning goals. Motivation is an essential factor in a student's ability and desire to perform academic tasks (Hamilton & Akhter, 2009). In an international study of 57 countries assessing the capacity of 15-year-old students to reflect on and use the skills they had developed in reading, mathematics, and science as related to job readiness, the OECD and PISA found that intrinsic motivation and general interest in science positively correlated (0.88) with student performance on science achievement (Figazzolo, 2009; MacGaw, 2008; OECD, n.d.; OECD, 2007).

While more difficult to quantifiably assess, research indicates that it is important to

consider motivational factors when attempting to find predictor variables for student success in academics. Some researchers purport that testing itself can act as an academic motivator for both students and educators (Phelps, 2005). This viewpoint is also evident in the fact that many educational dollars are tied to testing outcomes in today's climate of academic accountability (GADOE, n.d.-a). Other research studies view achievement from a differing perspective and indicate that factors such as general intelligence, work drive, self-discipline, perseverance, and motivation are the strongest predictors of student success (Geiser, 2009; Ridgell & Lounsbury, 2004). Kitsantas et al. (2008) found that students exhibiting strong time-management skills and short-range planning ability were more successful in the post-secondary setting.

Student Success Skills (SSS)

Brigham and Campbell (2003) focused their research on an intervention methodology that involved classroom and group guidance sessions entitled Student Success Skills (SSS). In a comprehensive two-year research project utilizing a program called SSS that involved both classroom and group guidance, Brigham and Campbell (2003) found that structured group intervention for students taking the FCAT yielded significant differences in math ($p = .000$) and reading ($p = .003$) between students in the control and experimental groups. Further replication of this study (Webb, Brigham, & Campbell, 2005) found that 85% of students in the treatment group improved their FCAT scores in math when compared to students in the control group who improved their scores by 73%. Although not statistically significant, 75% of students in the reading treatment group improved their scores as compared to 73% in the control group.

Additional study of aggregate data from four studies involving the SSS program (Brigman & Campbell, 2003; Brigman et al., 2007; Campbell & Brigman, 2005; Webb et al., 2005) found that the program resulted in statistically significant increases in student test scores

on the FCAT across all involved ethnic groups. Analysis of scores from 1,123 students enrolled in 36 schools, found a statistically significant ($p < .05$) increase in both reading and math scores of the treatment group, regardless of ethnicity (Miranda et al., 2007).

The SSS program is based on skill sets that have been found in research to contribute to improved academic achievement. A review of research indicates skill sets involving goal setting, self-monitoring of academic progress, listening, team-work, motivation, and managing one's attention and anger contribute to improved academic and behavioral performance in many students (Hattie, Biggs, & Purdie, 1996; Masten & Coatsworth, 1998; Walberg & Paik, 2000; Wang, Haertal, & Walberg, 1994; Zin et al., 2004). Due to the fact that the SSS program focuses on skills essential to learning meta-cognitive, social, and self-management skills rather than simply targeting tested academic skills, the program has been found to be effective in closing the academic achievement gap for African-American and Latino students and improving academic outcomes for all low-achieving students (Miranda et al., 2007).

In a study utilizing a format very similar to the SSS program, Bruce et al. (2009) found that test scores of African-American students on the GHSGT were significantly higher. All students in the study who participated in an 8-week, counselor-led, preparation program passed math and ELA, while 87% passed science and social studies.

Mariani, Webb, Villares, and Brigman (2015) utilized the guidance portion of the SSS program to study its potential impact on student behavior. The study used a quasi-experimental pretest–posttest design to determine if the guidance portion of the SSS could statistically impact prosocial and bullying behaviors in fifth graders. Additionally, the research examined school engagement and student perceptions of the school. The study found statistically significant evidence that the behavior and perceptions of students completing the SSS guidance program

were positively impacted.

The classroom portion of the SSS was translated into Spanish and used by Urbina (2011) to study its impact on the academic achievement of Hispanic students. Guidance counselors conducted the SSS standardized classroom guidance sessions for Hispanic 9th and 10th graders. The study indicated statistically significant improvement in student's math and reading scores on the FCAT.

Conversely, Kane (2015) found that the classroom guidance portion of the SSS had no significant impact on the motivation, social engagement, and self-regulation (identified as key academic behaviors) and college/career readiness indicators for fifth grade students. However, the National Panel for School Counseling Evidence-Based Practice found that the intervention provided by the SSS program demonstrated positive effects on academic achievement, as measured by FCAT scores. The panel evaluated the program in seven domains and found that the program achieved "strong evidence" (p. 200) of success in measurement, implementation fidelity, and ecological fidelity. The program demonstrated "promising evidence" (p. 200) in the domains of comparison groups, statistical analysis of outcome variables, and replication. However, SSS was found to present "weak evidence" (p. 200) in persistence of effect (Carey, Dimmitt, Hatch, Lapan, & Whiston, 2008). The panel made strong recommendations for further research utilizing the SSS program, especially with regard to the longitudinal effects of the program on student achievement and behavior (Carey et al., 2008).

Summary

Given the reality that high-stakes testing remains a critical factor for successful graduation from a Georgia high school, educators must continue to search for methods to assist students in improving their skills in taking these exams. The SSS program has been found to

provide statistically significant results in helping students improve their scores on the high-stakes FCAT. Identifying students who need additional help in testing skills can allow educators to implement strategies that will help students pass tests similar to the GHSGT or other high-stakes tests. This study adds to the body of research knowledge by studying the potential influence that the SSS program could have on students' GHSGT scores.

CHAPTER THREE: METHODOLOGY

Introduction

High stakes testing has become the standard through which the public evaluates the effectiveness of the schools they support with their tax dollars. While experts, educators, students, and parents voice both positive and negative opinions toward high stakes testing, teachers and administrators understand the increasing importance of working toward improving test scores as a means of proving their effectiveness in educating their students. Educators are charged with the task of implementing programs and intervention methods that enable their students to improve the test scores that are critical to their graduation success. This project studied the potential impact of the SSS program on the GHSGT scores of students who had previously failed one or more of the required subject areas of the GHSGT.

This chapter presents the research design used in this quantitative experimental study along with the research questions and hypotheses, the setting, the participants, instrumentation, the procedures for conducting the study, and data analysis for each of the hypotheses.

Design

This quantitative study employed a posttest-only control group design with randomization (Ary, Jacobs, Razavieh, and Sorensen, 2006). For this design, all participants are assigned to control and treatment groups by random assignment, after which the experimental group is exposed to the treatment. Participants in each group are administered a posttest, followed by a comparison of scores to determine the effect of the treatment. According to Ary et al. (2006), this design contains two elements that are important for controlling threats to internal validity: a control group and randomization. Ary et al. further explained that "randomization controls for all possible extraneous variables and assures that any initial differences between the

groups are attributable only to chance and therefore will follow the laws of probability" (p. 329). Participants in this study were compared after the treatment was administered using posttest scores (GHSGT scores after the treatment was administered). The dependent variable was student achievement as measured by posttest scores on the GHSGT. The independent variable was participation in the SSS Program.

Participants had previously taken the GHSGT during any of the four 2012 testing administrations and had not passed at least one portion of the GHSGT and were thus required to retake the portions not passed. After the treatment was administered in January through early March 2013, participants were compared based on posttest scores (i.e., the GHSGT retest score that occurred closest to the implementation of the treatment between March 2013 and November 2013).

Research Questions

RQ1: Is there a difference in Georgia High School Graduation Test scores in math for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

RQ2: Is there a difference in Georgia High School Graduation Test scores in social studies for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

RQ3: Is there a difference in Georgia High School Graduation Test scores in English language arts for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion

of the Student Success Skills curriculum?

Null Hypotheses

$H_0$1: There is no significant difference in Georgia High School Graduation Test scores in math for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

$H_0$2: There is no significant difference in Georgia High School Graduation Test scores in social studies for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

$H_0$3: There is no significant difference in Georgia High School Graduation Test scores in English language arts for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

Setting

The setting for this study was a rural high school in northeast Georgia serving 1,300 students in grades 10–12 and 23 repeating ninth graders for a total of 1,323 students in its main building. The remaining 536 ninth grade students in the district attended the Ninth Grade Academy, which is housed in a separate building. Thus, there were a total of 1,859 students in grades 9–12 in the school district at the time of the study. The public school district consisted of eight elementary schools, three middle schools, one ninth-grade academy, and one high school for a total of 13 schools. There were three private schools in the area. Since the participants for this study were 10th, 11th, and 12th graders, the following demographic information in Table 1

includes students in grades 10–12 only.

Table 1

Demographics for Study School

	Female		Male		Total	
Ethnicity/Race	*n*	%	*n*	%	*N*	%
Hispanic	152	11.69	141	10.85	293	22.54
Asian	19	1.46	28	2.15	47	3.62
Black	14	1.08	13	1.00	27	2.08
White	433	33.31	469	36.08	902	69.38
Multiracial	13	1.00	18	1.38	31	2.38
Totals	631	48.54	669	51.46	1300	100.00

Note. Table reflects enrollment numbers based on the GADOE's *Enrollment by Ethnicity/Race, Gender and Grade Level (PK–12) - Fiscal Year 2013-1 Data Report* for October 2, 2012.

During the 2012–2013 school year, the school served 2% of its students in the English to Speakers of Other Languages program. The area of northeast Georgia in which this school is located is home to a large poultry industry, making it attractive to a large transitory Hispanic population. The special education population comprised 16% of the student body, and 53.51% percent of the students at this school qualified for free and reduced lunches. The gifted program served 11% of the student body (GOSA, n.d.-b).

The school chosen for participation in this study failed to meet AYP status for the 2009–2010, the 2010–2011, and the 2011–2012 school years due to low graduation test scores in a sub-group and low graduation rates. The school's graduation rate was impacted by the number of students failing to receive a high school diploma due, in part, to the inability of some students to pass all parts of the GHSGT (GADOE, 2011).

Participants

Each year, the GADOE required high school juniors to be tested for the first time during the spring administration of the GHSGT. The exploration for potential GHSGT participants for this study began with a group of 141 students who had failed the GHSGT in at least one area during the spring 2012 administration of the test. An additional six participants were added from the remaining three testing sessions of 2012. Three potential participants were added to the list from the summer 2012 administration, two from the fall 2012 administration, and one from the winter 2012 administration. This brought the total number of potential participants to 147.

From this pool of 147 students, 25 students were removed before the treatment was implemented because they were able to pass the content area test(s) they had previously failed. Additionally, the Georgia State Board of Education ruled in April 2011 that a passing EOCT score could replace a GHSGT score in the same content area resulting in the loss of 41 potential participants. An additional 12 students either transferred or moved by the time IRB approval had been granted in early November 2012. One student died in an automobile accident. The remaining 68 students were randomly placed into either a control group (34 students) or a treatment group (34 students) using randomizer.org as soon as IRB approval was granted in early November 2012. Before the SSS program sessions began, one student from the control group transferred to an alternative school setting in the district leaving 33 students in the control group. Over the course of the SSS program sessions and before the April 2013 administration of the GHSGT, one student from the control group was removed from enrollment for an unknown reason and one student was removed from the treatment group for lack of attendance. Loss of these two students resulted in 32 students in the control group and 33 students in the treatment group for an overall total of 65 students in the study.

The SSS sessions began in January 2013 and ended in early March 2013. Of the 65 participants, there were 59 students (91%) who were tested after implementation of the SSS program during the spring 2013 testing session. An additional two students (3%) were tested during the summer 2013 session, three students (5%) during the fall 2013 session, and one student (1%) during the winter 2013 session.

The GHSGT assessed ELA, math, science, and social studies as four separate tests with individual test scores. After the treatment was implemented, the control and treatment groups were subdivided into content area groups according to the tests students did not pass for the purpose of data analysis. Georgia statewide test results from the spring 2011 administration of the GHSGT revealed that more students passed the science (93%) and ELA (91%) portions than the math (84%) and social studies (80%) portions (GADOE, n.d.-f). Test results for the study school from the spring 2011 administration of the GHSGT were similar to those of the state with 92% passing science, 88% passing ELA, 79% passing math, and 78% passing social studies (GADOE, n.d.-f). This held true for participants in this study who were tested during the four 2012 testing sessions. As a result, there were not enough participants who failed the science portion to include them in the study as many of these students retested and passed prior to the implementation of the treatment and had to be removed from the potential participant list. Therefore, only the math, social studies, and ELA results were included in the inferential statistical testing portion of this study. Demographic information for all four content area groups is presented (see Tables 3 and 5).

Control Group

Table 2 shows gender and ethnicity information for the 32 students in the control group. The largest group was white (75%) while Hispanic students comprised the second largest group

(25%). This is similar to the makeup of the school where 69% were white and 23% were Hispanic. There were four more males (18) than females (14) in this group. Special education students comprised 28% of the group while English language learners comprised 22%.

Table 2

Demographics for the Control Group

	Female		Male		Total	
Demographic	*n*	%	*n*	%	*N*	%
Ethnicity/Race						
Hispanic	3	9.38	5	15.63	8	25.00
Asian	0	0.00	0	0.00	0	0.00
Black	0	0.00	0	0.00	0	0.00
White	11	34.38	13	40.63	24	75.00
Total	14	43.75	18	56.25	32	100.00
Special Education	5	15.63	4	12.50	9	28.13
English Language Learner	5	15.63	2	6.25	7	21.88

Students in the control group were placed into the four content areas of the GHSGT according to the content areas that they did not pass (see Table 3). The largest group was social studies with 22 students, followed by ELA with 11 students, math with 10 students, and science with 3 students. Inferential statistics were not calculated for the science group due to the small sample size. The math, social studies, and science groups were mostly white with 80%, 82%, and 67%, respectively. The ELA group was about half Hispanic (55%) and half white (45%). Special education students comprised from 40% to 67% of the four content area control groups. There were no English language learners in any of the control groups.

Table 3

Demographics for the Control Group by GHSGT Content Area

	Math		Social Studies		ELA		Science	
Demographic	*n*	%	*n*	%	*n*	%	*n*	%
Gender								
Female	4	40.00	12	54.55	1	9.09	1	33.33
Male	6	60.00	10	45.45	10	90.91	2	66.67
Total	10	100.00	22	100.00	11	100.00	3	100.00
Ethnicity/Race								
Hispanic	2	20.00	4	18.18	6	54.55	1	33.33
Asian	0	0.00	0	0.00	0	0.00	0	0.00
Black	0	0.00	0	0.00	0	0.00	0	0.00
White	8	80.00	18	81.82	5	45.45	2	66.67
Total	10	100.00	22	100.00	11	100.00	3	100.00
Special Education	5	50.00	9	41.00	7	63.64	2	66.67
English Language Learner	0	0.00	0	0.00	0	0.00	0	0.00

Treatment Group

Table 4 shows gender and ethnicity information for the 33 students in the treatment group. The largest group was Hispanic (70%) while white students comprised the second largest group (21%). This was the exact opposite of the control group where 75% were white and 25% were Hispanic. There was one more female (17) than males (16) in this group. Special education students comprised 27% of the group while 21% of the group was English language learners. This closely mirrored the control group where 28% were special education students

and 22% were English language learners.

Table 4

Demographics for the Treatment Group

	Female		Male		Total	
Demographic	*n*	%	*n*	%	*N*	%
Ethnicity/Race						
Hispanic	12	36.36	11	33.33	23	69.69
Asian	2	6.06	0	0.00	2	6.06
Black	1	3.03	0	0.00	1	3.03
White	2	6.06	5	15.15	7	21.21
Total	17	51.51	16	48.48	33	100.00
Special Education	5	15.15	4	12.12	9	27.27
English Language Learner	5	15.15	2	6.06	7	21.21

Students in the treatment group were placed into the four content areas of the GHSGT according to the content areas that they did not pass as shown in Table 5. The math and social studies groups each had 22 students while the ELA group had nine students and the science group had eight. Inferential statistics were not calculated for the science group due to the small sample size. The four treatment groups were mostly Hispanic ranging from 73% to 82%. The social studies treatment group had the only black student in the study. Special education students comprised from 13% to 36% of the four content area control groups which was a much lower percentage overall than the control group. The social studies group was comprised of more students than the other content area groups. English language learners ranged from 23% to 75% with science having the most.

Table 5

Demographics for the Treatment Group by GHSGT Content Area

	Math		Social Studies		ELA		Science	
Demographic	*n*	%	*n*	%	*n*	%	*n*	%
Gender								
Female	11	50.00	11	50.00	4	44.44	5	62.50
Male	11	50.00	11	50.00	5	55.56	3	37.50
Total	22	100.00	22	100.00	9	100.00	8	100.00
Ethnicity/Race								
Hispanic	16	72.73	18	81.82	9	81.82	6	75.00
Asian	0	0.00	1	4.55	1	9.09	2	25.00
Black	0	0.00	1	4.55	0	0.00	0	0.00
White	6	27.27	2	9.09	1	9.09	0	0.00
Total	22	100.00	22	100.00	11	100.00	8	100.00
Special Education	6	27.27	8	36.36	2	22.22	1	12.50
English Language Learner	5	22.73	5	22.73	4	44.44	6	75.00

Instrumentation

Georgia High School Graduation Tests (GHSGT)

Beginning in 1995, the state of Georgia implemented a high school exit exam called the GHSGT. The GHSGT assessed subject content in ELA, mathematics, science, and social studies. This battery of four tests measured students' mastery of essential core content of Georgia's curriculum. Scores ranged from below 200 (below proficiency) to 275 or above

(proficiency) for each of the four content area tests. A score below 200 was considered not passing. A student was required to retest on any content area test that received a score below 200. A Georgia high school student's first attempt at the GHSGT occurred during the spring administration of the test in March of the student's 11th grade year. Students not successfully passing each test were given an additional four opportunities to retake the unsuccessful parts of the test before their expected graduation date (GADOE Assessment Research and Development Department, 2010, 2011). These four opportunities included the summer administration in July following their junior year and the fall, winter, and spring administrations in September, November, and March of their senior year. However, students who did not pass all parts by graduation at the end of the senior year were allowed to continue taking the test until each part was passed. If all other graduation requirements had been met, these students were issued a certificate of attendance at graduation instead of a diploma. Georgia utilized the GHSGT as its exit exam until 2015 (GADOE, n.d.-e).

Validity and Reliability for the GHSGT

The GADOE document entitled *An Assessment and Accountability Brief: Validity and Reliability for the 2009–2010 Georgia High School Graduation Tests* states that validity was established for the GHSGT through a series of evidentiary steps throughout the test development process (GADOE Assessment Research and Development Department, 2010).

The first evidence of validity was to provide clear substantiation of the test's purpose. The GADOE asserted that the purposes of Georgia's standardized testing program was to assess students' level of mastery of the state's academic curriculum, to identify students who were failing to adequately progress academically, to provide data for the purpose of making instructional decisions, and to identify strengths and weaknesses in school systems (GADOE

Assessment Research and Development Department, 2010, 2011).

The second step in establishing validity was a multi-step test development process that included curriculum alignment, as well as the identification of content that would be tested. Committees of content specialists, test designers, and state educators were tasked with the development of test items. Field-testing was accomplished through the implantation of specific test questions in the GHSGT for review. The established committees approved discarded test items for future GHSGT testing sessions. Content specialists and psychometricians developed multiple forms for student use (GADOE Assessment Research and Development Department, 2010, 2011). Reliability coefficients ranged from 0.85 to 0.93 for the 2009 and 2010 administrations of the GHSGT (GADOE Assessment Research and Development Department, 2010).

Procedures

Permission to conduct the study was obtained from the school district's superintendent (see Appendix B), the school principal (see Appendix C), and Liberty University's IRB (see Appendix D). After IRB approval was obtained and the November 2012 GHGST administration results were made available, a list of 147 students who had failed the GHSGT in at least one area were identified from the four 2012 administrations of the test. Students who were no longer in attendance at the school (13 students) or who had successfully retaken all tests (25 students) or who were allowed to substitute an EOCT score for a failing GHSGT score (41 students) were removed from the list leaving 68 students available to participate in the study.

Individual students were called to the guidance office and given the appropriate informational letter and statement of consent (see Appendices E and F). The SSS program was explained to the student including information on program content, expectations for attendance,

and how scheduling for the program would look. Students were encouraged to ask questions and discuss their questions and concerns with the researcher. Students were asked to give the informational letter and statement of consent (see Appendices E and F) to their parents or guardians and to return the signed permission form to the guidance office by the end of the following week. Students who were at least 18 years old were allowed to sign their own permission forms. Students on the list who had received a certificate of attendance were contacted, via phone, and given the information by the researcher. The researcher reminded students to turn in their forms, called parents who had questions, and provided information to teachers who had students who might miss some class time by participating in this research. The 68 students were randomly placed into either a control group or a treatment group using randomizer.org.

After randomization, the researcher met with the 34 students in the treatment group, both individually and in small groups, to determine the best meeting times. Times were chosen that provided the least impact on the students' academic classes. Students participating in the treatment group for this study took part in eight group-counseling sessions from the group guidance portion of the SSS program. The GHSGT group sessions were held during January, February, and early March 2013. Due to varying scheduling issues in the school year, the groups were not always able to meet each week consecutively, but all eight sessions were completed as designated in the SSS manual. Students attended SSS sessions during the school day, based on the time that worked best with their academic schedules. This school was on a 4x4 block schedule, with four classes meeting for 90 minutes each day. The group sessions were held in different academic blocks in order to keep the student from missing too much class time.

The SSS program was designed to take place over an eight to ten week period before the

administration of a standardized test. The researcher, who also worked as a guidance counselor in the school, led the treatment group sessions. Sessions focused on cognitive, self-management, and goal-setting skills. Each group session consisted of three segments. The beginning section of each group session began with a student self-check of energy and mood, followed by an activity focused on the student's progress in academic and behaviors and goals previously set by that student, a progress report on incorporating self-management skills provided to the group by the student, and a preview of the day's meeting. The middle portion of the group meeting introduced the day's topic and provided activities for exploration and discussion of that day's subject matter. The closing segment of each meeting included activities to aid students in reflecting on the material learned and making decisions on how to use this information to reach their academic and behavioral goals. Students also set goals to work on for the next group counseling session.

During the course of the SSS sessions, one student from the control group was removed from enrollment for an unknown reason and one student was removed from the treatment group for lack of attendance. Loss of these two students resulted in 32 students in the control group and 33 students in the treatment group for an overall total of 65 students in the study. Most students (59) were able to retest during the spring 2013 testing session at the end of March, while the remaining six students were not retested until the later 2013 testing sessions. Two students retested during the summer 2013 testing session, three during the fall session, and one during the winter session.

A staff member in the school guidance office entered data for each group onto an Excel spreadsheet and assigned each participant an alphanumeric code so that participants were unidentifiable. Data entered for each participant included gender, race/ethnicity, participation in

special education, identification as an English language learner, and scores from the eight administrations of the GHSGT in 2012 and 2013.

The researcher identified the scores that would be used in the data analysis. The pretest scores were used to identify students who received a failing GHSGT score (below 200) from the March 2012, July 2012, September 2012, or November 2012 testing sessions. Most of the pretest scores came from the November 2012 administration of the GHSGT (100% of the treatment group and 69% of the control group). The pretest scores were not used in any of the inferential statistics; they were used only to identify students who had failed at least one portion of the GHSGT and were therefore eligible to participate in the study. The posttest score used in the analyses was the student's score (passing or failing) from the first GHSGT testing session following completion of the SSS group counseling sessions that each student was able to participate in (March 2013, July 2013, September 2013, or November 2013). Posttest scores for most students came from the March 2013 administration (97% of the treatment group and 84% of the control group).

Data were never presented in a way that individual students could be identified. All digital data pertaining to the study was stored on a single, password-protected computer, which could be accessed only by the researcher. The paper documents were stored in a locked file cabinet in the guidance office vault. All digital data and all paper documents containing student data will be destroyed three years after the completion of the project.

The appropriate statistical tests were conducted using Statistical Package for the Social Sciences (SPSS) version 22. These tests are described in the following section.

Data Analysis

The recommended statistical procedure for a posttest-only control group design is a *t* test

or ANOVA (Gall, Gall, & Borg, 2003). Prior to IRB approval, the number of potential participants decreased due to various reasons as previously discussed in this chapter which greatly reduced the sample sizes, so the Mann Whitney *U* test was considered to determine if there was a significant difference between the posttest scores of the control group and the posttest scores of the treatment group for the various GHSGT content areas. The Mann-Whitney *U* test is applicable for non-normal distributions regardless of sample size. At combined samples smaller than 20, the *U* statistic is most pertinent; however, once the combined sample size surpasses 20, the *U* statistic can be closely approximated to a normal behavior represented by the *z* statistic (Brase & Brase, 2006; Miller, Freund, & Johnson, 1990).

Additionally, it was essential to check the data for normality due to the small sample sizes involved. Histograms were created and tests of normality including Kolmogorov-Smirnov and Shapiro-Wilk were conducted to make the determination of normality. Table 6 shows the normality results for the posttest scores. All of the math and ELA posttest data sets were normal while both sets of the social studies posttest data were not normal. If the results were mixed when looking at both the Kolmogorov-Smirvov and the Shapiro-Wilk results, it was considered to be not normal (i.e., social studies posttest for the treatment group).

Table 6

Tests of Normality for the GHSGT by Group and Content Area

	Kolmogorov-Smirnov[a]			Shapiro-Wilk			
	Statistic		Sig.	Statistic	*df*	Sig.	Normal?
Math							
Posttest Control	.18	10	.299	.91	10	.256	Yes
Posttest Treatment	.149	22	.200	.92	22	.092	Yes

Social Studies							
Posttest Control	.21	22	.015	.78	22	.000	No
Posttest Treatment	.15	22	.200	.9	22	.036	No
ELA							
Posttest Control	.16	11	.200	.92	11	.289	Yes
Posttest Treatment	.24	9	.145	.87	9	.113	Yes

a. Lilliefors Significance Correction

After examining normality and sample size, it was determined that the Mann-Whitney *U* test would be best for testing each of the three hypotheses even when the data sets were normal, in order to ensure consistency across the content areas and due to the extremely small sample sizes for some of the groups.

The Mann-Whitney *U* test is a nonparametric test that is typically used when at least one of the assumptions for the independent samples *t* test is found to be not tenable (Field, 2013). This test was appropriate since some of the data violated the normality assumption and all were considered small sample sizes. According to Green and Salkind (2008), this test is used to evaluate whether the medians of the dependent variable of the two groups are significantly different. Test scores are converted to ranks, ignoring group membership, after which the mean ranks for the two groups are tested to see if the two groups differ significantly from each other. An alpha level of .05 was used for all testing. Assumption tests for Mann-Whitney *U* included checking for (a) independence within and between groups, (b) data that is continuous or ordinal for the dependent variable, (c) two categorical, independent groups for the independent variable, and (d) homogeneity of variances to determine if the shapes of the distribution for the data were the same (DeCoster, 2006; Green & Salkind, 2008; Nachar, 2008). Effect sizes were not calculated due to findings of no significant difference for all three hypotheses.

Summary

A quantitative experimental methodology using a posttest-only control group design was utilized to determine if participation in the guidance portion of the SSS program would produce a significant difference in GHSGT scores for students who participated in the SSS intervention as compared to those who did not participate. The study was conducted in a rural high school in northeast Georgia. Mann-Whitney *U* tests were used to test the three hypotheses because the data for some of the groups were not normal and all sample sizes were small. The results of the study are presented in Chapter 4.

CHAPTER FOUR: FINDINGS

Introduction

The purpose of this experimental posttest-only control group design with randomization was to determine if the 8-week guidance portion of the Student Success Skills (SSS) program could statistically impact the Georgia High School Graduation Test (GHSGT) scores of students who had previously failed at least one portion of the GHSGT. Randomly selected students were guided through the SSS curriculum in activities that facilitated cognitive and meta-cognitive skills, social skills, and self-management skills. The scores of these treatment group students were compared to the scores of the control group students to determine if the SSS intervention was statistically effective. Due to small sample sizes and abnormal data, the study employed Mann-Whitney *U* tests to determine statistical significance for the null hypotheses. Chapter 4 includes the descriptive statistics, the assumptions, and the results of the Mann-Whitney *U* for the three null hypotheses.

Research Questions

RQ1: Is there a difference in Georgia High School Graduation Test scores in math for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

RQ2: Is there a difference in Georgia High School Graduation Test scores in social studies for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

RQ3: Is there a difference in Georgia High School Graduation Test scores in English

language arts for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum?

Null Hypotheses

$H_0$1: There is no significant difference in Georgia High School Graduation Test scores in math for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

$H_0$2: There is no significant difference in Georgia High School Graduation Test scores in social studies for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

$H_0$3: There is no significant difference in Georgia High School Graduation Test scores in English language arts for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

Descriptive Statistics

GHSGT Math Group

A total of 32 students comprised the math group as shown in Table 7. The treatment group had 12 more students than the control group. Mean and standard deviation were computed for both the pretest and the posttest for the GHSGT math participants (see Table 7). The GHSGT control and treatment groups performed similarly on the pretest, but the control group outperformed the treatment group on the posttest by scoring about 7 points higher on average

than the treatment group.

Table 7

Descriptive Statistics for the GHSGT Math Pretest and Posttest

			Math Pretest		Math Posttest	
	n	*%*	*M*	*SD*	*M*	*SD*
Control	10	31.25	178.40	13.09	173.50	21.95
Treatment	22	68.75	178.73	15.32	166.14	17.19
Total	32	100.00				

GHSGT Social Studies Group

A total of 44 students comprised the social studies group as shown in Table 8. Both groups had 22 students. Mean and standard deviation were computed for both the pretest and the posttest for the GHSGT social studies participants (see Table 8). The GHSGT social studies control and treatment groups performed similarly on both the pretest with a score of about 179 and the posttest with the treatment group scoring only one point higher than the control group.

Table 8

Descriptive Statistics for the GHSGT Social Studies Pretest and Posttest

			Social Studies Pretest		Social Studies Posttest	
	n	*%*	*M*	*SD*	*M*	*SD*
Control	22	50.00	179.00	12.40	186.68	19.51
Treatment	22	50.00	179.32	11.52	187.73	11.55
Total	44	100.00				

GHSGT ELA Group

A total of 20 students comprised the ELA group as shown in Table 9. The control group had 2 more students than the treatment group. Mean and standard deviation were computed for both the pretest and the posttest for the GHSGT ELA participants (see Table 9). The GHSGT control and treatment groups performed similarly on the pretest, but the control group outperformed the treatment group on the posttest by scoring about 3 points higher on average than the treatment group.

Table 9

Descriptive Statistics for the GHSGT ELA Pretest and Posttest

			ELA Pretest		ELA Posttest	
	n	*%*	*M*	*SD*	*M*	*SD*
Control	11	55.00	174.00	13.08	182.64	23.00
Treatment	9	45.00	174.67	11.99	180.00	18.19
Total	20	100.00				

Results

Null Hypothesis One

$H_0$1: There is no significant difference in Georgia High School Graduation Test scores in math for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum..

Mann-Whitney *U* test assumptions. Because the sample sizes were small, the GHSGT math data were analyzed using a Mann-Whitney *U* test. Prior to conducting the Mann-Whitney *U* test, the data were examined to verify that certain conditions were met (Nachar, 2008). The

examination determined that (a) there was independence within each group and mutual independence between the two groups, (b) the data for the dependent variable (GHSGT math scores) were continuous or ordinal, and (c) the data for the independent variable consisted of two categorical, independent groups (those who participated in the SSS intervention and those who did not participate).

A fourth assumption for the Mann-Whitney *U* test requires that the distribution of the scores for both groups have the same shape. If the shapes are the same, this in turn implies that the variance should be the same for the two groups (DeCoster, 2006). In order to determine homogeneity of variances, Levene's test is typically used; however, a nonparametric version of this test must be used for Mann-Whitney. Therefore, a modified Levene's test for ranked data was run in order to establish that the shapes of the distributions were the same. This is necessary for Mann Whitney. This modified Levene test was a one-way ANOVA of the absolute deviations of the ranked data. The control and treatment group data were ranked and aggregated to obtain the mean rank score for the groups. The absolute deviation between the ranked score and the mean rank score was determined. Based on the absolute deviations between the control and treatment groups for math posttest scores, a one-way ANOVA was conducted to determine homogeneity of variances. If the results are not significant, it can be assumed that the homogeneity of variances assumption has been met. Results of the one-way ANOVA for the math posttest revealed $F(1,30) = 1.29$, $p = .266$. Since the p value for the math posttest scores was greater than the alpha level of .05, the assumption of homogeneity of variances was met for the math posttest scores. Further, it could be implied that the distributions were similar. All assumptions were met.

Mann-Whitney *U* test results. In order to test the first hypothesis, a Mann-Whitney *U*

test was conducted using the math posttest scores for the control and treatment groups to determine if there was a difference in the scores between the two groups after the SSS intervention was administered. Table 10 shows the descriptive statistics for the math posttest for the control and treatment groups.

Table 10

Descriptive Statistics for Mann-Whitney U Test for Math Posttest Scores

	n	*Mdn*	Mean Rank	Sum of Ranks
Control	10	179.50	19.20	192.00
Treatment	22	166.00	15.27	336.00
Total	32			

The results of the Mann-Whitney *U* test for the math posttest scores were $U = 83.00$, $z = -1.10$, $p = .271$, 2-tailed. Since the *p* value of .271 was greater than the alpha level of .05, the math posttest scores for the control group and the treatment group were not significantly different. There was insufficient evidence to support that students who participated in the SSS intervention and were retested on the math portion of the GHSGT scored significantly different than those who did not participate in the SSS intervention. The null hypothesis was not rejected.

Null Hypothesis Two

$H_0$2: There is no significant difference in Georgia High School Graduation Test scores in social studies for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

Mann-Whitney *U* test assumptions. Because the GHSGT scores for the social studies data sets failed to pass the normality assumption and the sample sizes were small, the GHSGT

social studies data were analyzed using a Mann-Whitney *U* test. Prior to conducting the Mann-Whitney *U* test, it was determined that the assumption of independence was met and that the data types were appropriate for conducting a Mann-Whitney-*U* test. The fourth assumption for the Mann-Whitney *U* test requiring the distribution of the scores for both groups to have the same shape was tested as previously described. A one-way ANOVA was conducted to determine homogeneity of variances. Results of the one-way ANOVA for the social studies posttest revealed $F(1,42) = 0.51$, $p = .481$. Since the p value for the social studies posttest scores was greater than the alpha level of .05, the assumption of homogeneity of variances was met for the posttest scores. Further, it could be implied that the distributions were similar. All assumptions were met.

Mann-Whitney *U* test results. In order to test the second hypothesis, a Mann-Whitney *U* test was conducted using the social studies posttest scores for the control and treatment groups to determine if there was a difference in the scores between the two groups after the SSS intervention was administered. Table 11 shows the descriptive statistics for the social studies posttest for the control and treatment groups.

Table 11

Descriptive Statistics for Mann-Whitney U Test for Social Studies Posttest Scores

	n	*Mdn*	Mean Rank	Sum of Ranks
Control	22	186.50	21.02	462.50
Treatment	22	186.00	23.98	527.50
Total	44			

The results of the Mann-Whitney *U* test for the social studies posttest scores were $U = 209.50$, $z = -0.76$, $p = .445$, 2-tailed. Since the p value of .445 was greater than the alpha level of

.05, the social studies posttest scores for the control group and the treatment group were not significantly different. There was insufficient evidence to support that students who participated in the SSS intervention and were retested on the social studies portion of the GHSGT scored significantly different than those who did not participate in the SSS intervention. The null hypothesis was not rejected

Null Hypothesis Three

$H_0$3: There is no significant difference in Georgia High School Graduation Test scores in English language arts for students who participated in the group guidance portion of the Student Success Skills curriculum as compared to students who did not participate in the group guidance portion of the Student Success Skills curriculum.

Mann-Whitney *U* test assumptions. Because the sample sizes were small, the GHSGT ELA data were analyzed using a Mann-Whitney *U* test. Prior to conducting the Mann-Whitney *U* test, it was determined that the assumption of independence was met and that the data types were appropriate for conducting a Mann-Whitney-*U* test. The fourth assumption for the Mann-Whitney *U* test requiring the distribution of the scores for both groups to have the same shape was tested as previously described. A one-way ANOVA was conducted to determine homogeneity of variances. Results of the one-way ANOVA for the ELA posttest revealed $F(1,18) = 0.18$, $p = .673$. Since the *p* value of the ELA posttest scores was greater than the alpha level of .05, the assumption of homogeneity of variances was met for the posttest scores. Further, it can be implied that the distributions were similar. All assumptions were met.

Mann-Whitney *U* test results. In order to test the third hypothesis, a Mann-Whitney *U* test was conducted using the ELA posttest scores for the control and treatment groups to determine if there was a difference in the scores between the two groups after the SSS

intervention was administered. Table 12 shows the descriptive statistics for the ELA posttest for the control and treatment groups.

Table 12

Descriptive Statistics for Mann-Whitney U Test for ELA Posttest Scores

	n	*Mdn*	Mean Rank	Sum of Ranks
Control	11	189.00	10.95	120.50
Treatment	9	180.00	9.94	89.50
Total	20			

The results of the Mann-Whitney *U* test for the ELA posttest scores were $U = 44.50$, $z = -0.38$, $p = .704$ (2-tailed). Since the *p* value of .704 was greater than the alpha level of .05, the ELA posttest scores for the control group and the treatment group were not significantly different.

There is insufficient evidence to support that students who participated in the SSS intervention and were retested on the ELA portion of the GHSGT scored significantly different than those who did not participate in the SSS intervention. Based on the results of the Mann-Whitney *U* test, the null hypothesis was not rejected.

Summary

Using a posttest-only control group design, the researcher was able to determine if participation in the guidance portion of the SSS program produced a significant difference in GHSGT scores for students who participated in the program as compared to those who did not participate. Students who did not pass the GHSGT on at least one the four administrations of the test in 2012 (pretest scores) and who retook the test at least once during the four administrations of the test in 2013 (posttest scores) were included. Descriptive statistics were included for

pretest and posttest scores. The results of Mann-Whitney *U* tests were analyzed and the results were presented for the math, social studies, and ELA portions of the GHSGT. There was no significant difference found for the three hypotheses, indicating that the SSS program had no significant effect on the GHSGT scores of those students who participated in the program when compared to those students who did not participate. Chapter 5 presents a discussion of the results along with the conclusions, implications, limitations, and recommendations for further research.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Chapter 5 presents a synopsis of this study and its conclusions. The purpose of this experimental posttest-only control group design with randomization was to determine if the 8-week guidance portion of the Student Success Skills (SSS) program could statistically impact the Georgia High School Graduation Test (GHSGT) scores of students who had previously failed at least one portion of the GHSGT. The conclusions include the results of the research on the statistical effectiveness of the group guidance portion of the SSS program on GHSGT scores of rural high school students.

Discussion

Increasing student achievement is a major focus of research in the field of education. Available literature seeks to address a wide variety of factors that may impact a student's ability to learn and to demonstrate learning in a way that is measureable.

A review of the literature indicates that risk factors such as behavior issues (Kurleander et al., 2008), disengagement (Balfanz et al., 2007b; Simons-Morton & Chen, 2009) and poor attendance (Jerald, 2007) can be predictive of poor achievement as a student progresses through school. Additionally, research has identified significant predictive correlations between early academic factors, such as achievement in middle school math and English classes, standardized testing skills, and student performance on state exit exams (Nichols, 2003).

Student academic achievement has even found its way into the political spectrum with the implementation of laws such as NCLB (GADOE, n.d-a) and the most recent ESSA of 2015 (U.S. Department of Education, n.d.). Schools are expected to show increasing student achievement and academic progress. The accountability measures in these laws require demonstrable student achievement in exchange for tax dollars received.

Based on the theories of Cattell, Piaget, and Benet, testing as a measure of achievement is not a new concept. Piaget was a stage theorist who defined stages (by age) during which children should have specified competencies and developmental levels of cognition (Jaffe, 1998). His theory of age-related competencies is similar to the benchmarks expected of students as they progress through their school years (Gray, 1978). Cattell and Benet, along with others, laid the groundwork for psychometric testing which served as a predecessor to today's standards-based testing (Plucker & Esping, 2014; "Raymond Bernard Cattell," n.d). More recently, Beck's cognitive behavioral theory (CBT) teaches that a person's cognition impacts his behavior. Therefore, teaching a student to change his thoughts with regard to learning and test taking can positively impact his ability to successfully complete a standardized test (Comer, 2015).

As the focus on student achievement has become more politicized, counselors, teachers, and administrators are charged with determining methodologies that produce measureable results in students' academic achievement. While the pervasiveness of testing as an accountability measure is evident in today's educational assessments, there is a lack of research on interventions to help students perform well on standardized tests (i.e., high school exit exams). The American School Counselor Association promotes small group counseling as a preferred method for school counselors to promote academic achievement among their students (American School Counselor Association, n.d.), but there are gaps in the literature on small group counseling programs that assist high school students in raising their test scores.

The SSS program is the intervention strategy used in a study that was recognized in the literature as an "exceptionally well-done, comprehensive study" (McGannon, Carey, & Dimmitt, 2005, p. 12). Zyromski and Edwards (2015) discussed the SSS program as the only empirically supported school-based cognitive intervention program available in their meta-analysis of school

counseling programs.

In 2003, Brigman and Campbell conducted a district-wide study to determine the effect of counseling interventions on student's math and reading scores on the FCAT. The study was conducted using a quasi-experimental, pretest-posttest design with 185 randomly selected students. Participants were chosen from students whose initial FCAT scores were in the 25th to the 50th percentile (Brigman & Campbell, 2003). Counselors led both classroom guidance sessions throughout the school year and small group guidance sessions for student who needed extra help for eight weeks before a testing administration. The results of this study yielded significant differences in math between students in the control and experimental groups.

The research in this study utilized the group guidance portion of the SSS in an attempt to determine if the implementation of the group guidance portion of the SSS would statistically impact GHSGT scores for students in a rural high school who had not yet successfully completed the GHSGT in the required four content areas of math, ELA, science, and social studies. Students who had previously failed one or more test of the GHGST battery were eligible for participation in this study. The study began with 147 potential participants, but the number of students decreased over the course of the study due to students dropping out of school, passing the required graduation test, or using their EOCT score to replace their failing GHSGT in the same subject area. More information is provided in chapter 3. Contrary to the results achieved in the study by Brigham and Campbell (2003), participation in the group guidance portion of the SSS showed no significant impact on students' test scores in this research project. The abnormal data and the small sample sizes may have affected the results of this study.

Another factor that may have impacted the results of this study is the fact that only the group counseling portion of the program was used. The main goal of this study was to determine

if the group guidance portion would significantly impact student's standardized test scores. This study adds to the body of research indicating that the SSS program will most likely yield the best results if done on a district-wide or school-wide scale, especially if provided with administrative support.

Another factor that may have impacted the results of this research is the number of times students attempted to retake previously failed tests. The four academic tests of the GHSGT were taken in the spring of the student's junior year. If students failed one or more of the tests, they were given four additional opportunities to take the test before graduation. If students did not pass all four academic tests before graduation, they received a certificate of attendance, not a high school diploma. Even after the date of graduation, students were allowed to continue to attempt a failed graduation test(s) for an unlimited number of times.

Students who fail their exit exams are classified as dropouts and face the same risk factors as students who drop out of school before graduation (Atkinson & Geiser, 2009; Bruce et al., 2009). Since exit exams are designed to help schools produce graduates who show evidence of college and career readiness upon completion of high school (Berger, 2000; Bush, 2001; Goertz & Massell, 2005; Stillwell et al., 2011), it is clear that more research is necessary to determine if taking a graduation test multiple times is indeed the best way to determine if a high school student has the knowledge needed to enter college or the workforce after graduation.

The most recent report from the CEP highlights the current status and expected changes in testing in American schools. McIntosh (2012) indicates that more than 70% of students, nationwide, continue to be impacted by high school exit exams. While some states, such as Georgia, have eliminated exit exams, other states still have or are implementing exit exams (McIntosh, 2012).

Conclusions

The results of the research in this experiment indicated that the group guidance portion of the SSS program did not provide a statistically significant impact on GHGST scores for students in this sample. Previous studies revealed that the SSS program was successful in helping students achieve passing scores on the FCAT (Brigman & Campbell, 2003; Brigman et al., 2007; Campbell & Brigman, 2005; Webb et al., 2005). Both of these studies implemented the SSS program on a district-wide basis. As previously noted in this chapter, only the group guidance portion of the SSS program could be used for this group of students. The results of this study may have been found to be significant if the administration had allowed the program to be implemented on a district-wide or school-wide basis. Additionally, this study highlights the difficulty of conducting a study in the public school arena. The pressure on school administrators, teachers, and counselors to find the successful formula for increasing student test scores is enormous. In an effort to be successful, various programs seem to come and go in schools. Some programs may not be fully implemented or given sufficient time to work simply because these programs do not appear to produce quick results.

Another factor in student performance is the fluidity in which students come and go in the schools. Some students may enroll, withdraw, and reenroll multiple times over their high school careers. Students may be married, have children, take care of sick parents, or have a number of other responsibilities and life circumstances that may impact their ability to do well on standardized tests. There was one student in this study who was married with a young child. He left school each day to go to work in a local factory. He worked the 4 p.m. to 12:30 a.m. shift, went home to sleep, and got up at 5 a.m. each day to complete homework and get to school by 7:30 a.m. He was one of several students in this study who had life circumstances that

negatively impacted academic achievement.

Another factor impacting a study such as this one is the rapid change in state criteria for exit exams and graduation requirements. Since the implementation of the A+ Educational Reform Act of 2000, the state of Georgia has implemented eight changes in its testing and exit exam policies (GADOE, n.d-c). Georgia is not alone, however, in its rapidly changing testing strategies. In her comprehensive report on national exit exams, McIntosh (2012) indicated that "because events in this field move quickly some policies will undoubtedly have changed soon after publication of this report" (p. 5). The speed with which some states change their testing policies makes it difficult to conduct research. There are very few studies utilizing the GHSGT. This study is an example of the difficulties a researcher may encounter when attempting to find interventions that help students realize success on exit exams.

Further research is warranted to determine if implementation of the comprehensive SSS program, including classroom guidance, parent sessions, and group guidance sessions, might provide a statistically positive result on exit exams similar to the GHSGT.

Implications

Improving students' test scores has become a prominent focus not only for educators, but also for politicians, parents, employers, and the nation as a whole. Research focusing on predictive factors (Geiser, 2009; Zwick & Himelfarb, 2011), environmental and social factors (Geiser, 2009), external factors (Figazzolo, 2009; Geiser, 2009), and remediation methodologies (Misco, 2010) is found in the existing body of research. Outside of the arena of formal research, one can find a myriad of newspaper and Internet articles addressing schools' standardized test scores, indicating the broad-based concern over testing in the public school system. A large variety of opinions, both positive and negative, are evident in the national debate over

standardized testing for elementary, middle, and high school students. In the current climate of accountability, a school's standardized test scores are a critical measure of the school's success.

Issues such as teachers and administrators cheating on their school's standardized tests (Vogell, Perry, Judd, & Pell, 2012), concern over the efficacy of using student test scores for teacher evaluation (Kratochwill, 2013), and claims that test scores are impacted by a student's family wealth and/or social status (White et al., 2016) are contentious topics for many who are concerned about the present condition of education. With the continuing focus on test scores as a means of quality measurement for students, educators, and schools as a whole, educators will, of necessity, continue to search for methodologies that help students improve performance on standardized tests.

The intent of this study was to determine if the group guidance portion of the SSS program would be effective in helping students pass the required standardized tests for graduation. This research indicated that there was no statistically significant difference in the standardized test scores of the students in the treatment group for the GHSGT math and social studies groups. The SSS program was designed to be implemented as a system-wide program, involving multiple grade levels, classroom guidance lessons, parent instruction, and group guidance over the course of a school year in preparation for scheduled standardized testing. The majority of the research completed, thus far, has been for first-time test takers. It is important to note that this research was completed in a single-school setting for students who had previously failed one or more GHSGT. As with any research, varying circumstances may impact the statistical outcome of an experiment. Much of the available research on student achievement deals with predictive and correlational factors that impact student's standardized test scores. More research is needed that specifically addresses effective strategies for helping students

improve their ability to pass standardized achievement tests.

Little research is available that addresses remediation for students who have previously failed standardized tests. Many schools implement some sort of remediation program for their students who fail high school exit exams, but on many occasions the remediation is random and/or short-lived and empirical data is not easily found on the success of those programs. Levine (2012) found a greater impact from pretest scores and race than from remediation for high school students in Arizona who had previously failed the Arizona's Instrument to Measure Standards in math. Rothman and Henderson (2011) found that students who had participated in tutoring sessions were more successful on a standardized math test. Other research indicates that faculty involvement in tutoring and other interventions (Biesinger & Crippen, 2008), remediation as a scheduled class (Biesinger & Crippen, 2008), and differentiation (Grimes & Stevens, 2009) provided positive impact on standardized test scores. Little, McCoach, and Reis (2014) found that differentiation in the classroom setting provided a stronger positive impact on student standardized test scores than the type of classroom setting (i.e., traditional versus learner-centered).

Many states have implemented the Common Core State Standards curriculum and have or are in the process of developing assessments for their public schools (Common Core State Standards Initiative, n.d.; National Governor's Association, 2009). In the primary testing session for the Common Core Standards in New York, only "26 percent of students in third through eighth grade passed the tests in English, and 30 percent passed in math, according to the New York State Education Department" (Strauss, 2013).

Carol Burris, a high school principal in New York and previous supporter of the Common Core standards, maintained that principals, teachers, and students feel pressured to do

well on standardized exams. She indicated that educators were engaging in test preparation activities to assist students in raising their standardized test scores, even to the point of purchasing expensive test preparation materials from the test manufacturer (Strauss, 2013).

An unexpected result of this study is the insight into the emotional toll that testing of this nature has on students. Most states have a policy of unlimited retakes for students not passing the exam the first time it is taken (McIntosh, 2012). The data from this study indicated the complexity and confusion that allowing unlimited retakes introduces to the exit exam scenario.

The data for this study was followed over a two-year period. Most of the students in this research project took their failed graduation test(s) from two to five times. One student, who received a certificate of attendance and kept coming back to retake the GHSGT, retook the ELA test 5 times, the math test 5 times, the science test 4 times, and the social studies test 7 times over the course of the two years of test scores used for data in this project. The data from this study indicates that simply retaking the test is not necessarily going to help students pass the GHSGT.

Also evident from this study is the need for administrative support for programs that help students improve their test scores. The school hosting this study had random study sessions available to students. Subject area teachers offered most of the study sessions, but students were not required to attend since the sessions were held before or after school.

When possible, the administration asked that students be scheduled in an appropriate academic course for remediation, but the district administration would not allow students to be rescheduled in a course they had previously passed. For example, if they did not pass the social studies GHSGT, they could not retake any of the history courses they had already passed.

The SSS program was presented to the administration. The administrators were interested in seeing the results of the study but did not want to consider its implementation until

this study was complete. However, over the course of this study, they implemented an afterschool program that offered some tutoring in academic areas and hosted a few Saturday study sessions a couple of weeks before the GHSGT testing dates. They also began a push to encourage students who were failing classes or had failed a GHSGT to move to another educational setting that allowed the student to work at an individual pace. Obviously, these changes impacted this study and in some cases served to reduce the potential data set.

The biggest impact to this study, however, came when the state decided to allow a student's passing EOCT score to replace their failing GHSGT score in the corresponding academic area. The new law was retroactively implemented which greatly impacted the data set for this study resulting in a loss of 41 potential participants.

All of these scenarios highlight the quickly changing landscape in which educators currently work. The public demands improvement. If that improvement is not quickly seen in the data, change is expected. This fluid environment of rapid modifications makes long-term data collection difficult, but is very representative of the problems surrounding comprehensive research as it relates to exit exam testing in public schools.

Limitations

Factors, such as parental pressure, additional tutoring, and administrative policies had the potential to impact student scores and were unable to be controlled. Additionally, some students may have had learning disabilities, cognitive deficits, physical difficulties, anxiety issues, and other factors that may have negatively impacted their ability to perform well on tests. Evaluating predictor variables such as academic success in specified subject areas and other predictive factors that correlate with standardized test scores would be helpful in determining the necessity for remediation and intervention for students taking standardized tests (Atkinson & Geiser, 2009;

Bruce et al., 2009; Dennis, 2010; Geiser, 2009; Nichols, 2003). Intervention strategies that focus on cognitive, social, and self-management skills have been found to be successful in helping students perform better academically (Bruce et al., 2009; Silver et al., 2008).

Tutoring sessions for the GHSGT were offered on a continuing basis and were open to all students, but students were not required to attend. Some students received remedial help within the classroom setting if the student's schedule allowed. There were no records of attendance for specific students available during this research.

Lack of student engagement is a limitation for a high-stakes exit exam. Engagement impacts areas of student attendance, academic performance, and testing (Balfanz et al., 2007a, 2007b; Garriott, 2007). Completing the SSS guidance sessions while taking the content course for the area to be tested and completing the test immediately upon completion of the content course could potentially engage the student and influence the success of the program. The guidance session assignments required students to set goals each week and to monitor their progress for those goals. Setting goals in light of an upcoming high-stakes test could influence engagement and assist a student's effort in learning the material necessary to successfully perform on the test.

Maturation is also a common threat to external validity when students are tested multiple times. Students were allowed unlimited retakes of the test(s) they had failed. The participants in this study had previously failed at least one of the tests from one to five times. While the data indicated that most of the students had scores on their retake attempts that only varied by a few points, maturation may have impacted some students' scores.

Recommendations for Future Research

While there was some positive impact on student test scores, the findings of this study

provided unlikely statistical evidence that short-term guidance sessions in isolation will be an effective intervention for students attempting high-stakes standardized tests. Additional research, with a much larger sample size, is needed to determine if guidance sessions would be more effective as part of a system-wide effort to assist students in successfully completing these exams. To be truly effective, the guidance sessions would require the blessing and participation of the school administration to allow the guidance staff or other interested participating staff to be able to conduct the treatment groups on a large scale.

The SSS program includes both classroom guidance and parent training sessions (Webb et al., 2005). The program was found to have significant positive impact for students taking the FCAT (Brigman et al., 2007; Webb et al., 2005). Further research, utilizing the comprehensive program, including the parent training sessions, would provide insight into the potential impact of this and similar programs on Georgia's standardized tests and standardized tests in other states.

Further research is needed to determine if offering the guidance sessions before the student takes an exit exam similar to the GHSGT the first time would enable students to perform better on the assessments. The program implemented in this research was completed for students who had already failed a GHSGT. Using predictor variables to identify at-risk students for intervention is recommended before the student attempts the exit exam.

While the guidance portion of the SSS program alone was not found to be statistically significant in this study, educators know that any effort made to connect with a student in a small group setting and individually can have significant results for that individual student. One of the students in the treatment group who passed her test after previously failing the test four times attributed her success directly to the skills she learned in the SSS group guidance sessions. For

this student, the results were life changing. After learning that she had passed her test, the college of her choice accepted her giving her the opportunity to earn her college degree and pursue her chosen career. For that student, this program was significant.

The current study further contributes to the field by assisting educators and policymakers in determining whether or not unlimited attempts at exit exams are actually beneficial for students. States should also use the data from this and similar research to evaluate whether one failed test should keep a student from graduating. States with tests designed like the GHSGT may not issue a diploma to students even if those students have passed all but one of their graduation tests. Georgia has now moved to an EOC exam given upon completion of an academic course. The grade on the EOC counts as 20% of the student's grade, but will not singularly prevent the student form graduating.

Additionally, a qualitative study on the impact of failing a high school exit exam is recommended. Researching what happens to a student in both his career and his post-secondary education would be beneficial research for those in the position of making decisions about exit exams.

As standardized testing continues to be an important part of the assessment and evaluation for school and student success, it is imperative that educators continue to search for methodologies that will allow them to help students succeed on these exams. Accountability is an important factor in today's schools and ensuring that students are prepared for post-secondary education and careers is a key part of that culpability. Even more important, however, is that good educators are continuously searching for better techniques to help their students succeed. After all, helping students succeed is the foundational premise for excellence in education.

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Appendix A: Student Success Skills Program

Student Success Skills:

Helping Students Develop the Academic Social and Self-Management Skills They Need to Succeed

Group Counseling Manual

Greg Brigman, Ph.D.
Chari Campbell, Ph.D.
Linda Webb, Ph.D.

www.studentsuccessskills.com

Appendix B: Approval by District School Superintendent to Conduct Research

I am writing to request your permission to conduct research, for my doctoral dissertation, at Habersham Central High School. The study I propose seeks to determine the potential statistical impact of group intervention on students' Georgia High School Graduation Test or End-of-Course-Test scores, for students who have been previously unsuccessful in passing these exams. The program I would use is the Student Success Skills program. Brigman, Webb, and Campbell (2005) have found positive statistical significance in the success of the Student Success Skills program for students taking the Florida Comprehensive Assessment Test (FCAT). If this program were found to have a statistically positive impact, it's use could be potentially beneficial for HCHS students who have not yet passed their End-of-Course-Tests or Georgia High School Graduation Tests.

The study would provide eight 45-minute group guidance sessions, that focus on cognitive, social, and self-management skills. Students and parents will be given information sheets and permission forms (see attached) on the program. Participants returning a permission slip signed by parents (or by the student if over the age of 18) will able to participate. Post-test scores on the students' Georgia High School Graduation

Tests (GHSGT) or End-of-Course Tests will be used to evaluate statistical impact of the Student Success Skills group intervention. The scores from the March 2012 or July 2012 test will be used as the pre-test measurement and scores from July 2012 or September 2012 will be the post-test scores, dependent on the time frame in which the Liberty University Institutional Research Board approves the study. All information will remain anonymous. No student's name will be used in any form in the final dissertation.

In conclusion, I would like to ask your permission to conduct the study described above at Habersham Central in preparation for the July 2012 or September 2012 GHSGT testing sessions. The appropriate testing session will be determined, dependent on the time in which the Liberty University Institutional Research Board approves the study. Should you have any questions or concerns regarding this letter or my research, please contact me at my email address below. You may also want to contact Dr. Casey Reason, Committee Chair, at creason@liberty.edu or at his office number - (419) 724-3391. Thank you for your consideration of this request.

Sincerely,

Appendix C: Approval by School Principal to Conduct Research

[redacted] High School

[redacted]

[redacted]
Principal

September 28, 2012

Mrs. Caudell,

Per your request, I am writing this letter to confirm that you have permission to conduct your doctoral research project at [redacted] High School. As previously indicated, I have given you permission to meet with students and Certificate of Attendance recipients who have not yet passed all of their Georgia High School Graduation tests in group guidance sessions. I understand that you will be utilizing the Student Success Skills curriculum to conduct guidance sessions with these students.

Additionally, you may access these student's previous, current, and future Graduation Test scores – as this is a function of your job as a Guidance Counselor. I also understand that you will provide an informational letter about this research to students and their parents. Permission to participate in this research will be via signed consent from parents or students who are age 18 or above.

If you have any further questions, please feel free to contact me at 706-778-7161.

Sincerely,

[redacted]

Appendix D: Institutional Review Board Approvals

LIBERTY
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The Graduate School at Liberty University

November 1, 2012

Donna A. Caudell
IRB Approval 1425.110112: The Effect of Group Counseling Intervention on the Performance of Rural Students on the Georgia High School Graduation Tests or End-of-Course Tests

Dear Donna,

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

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

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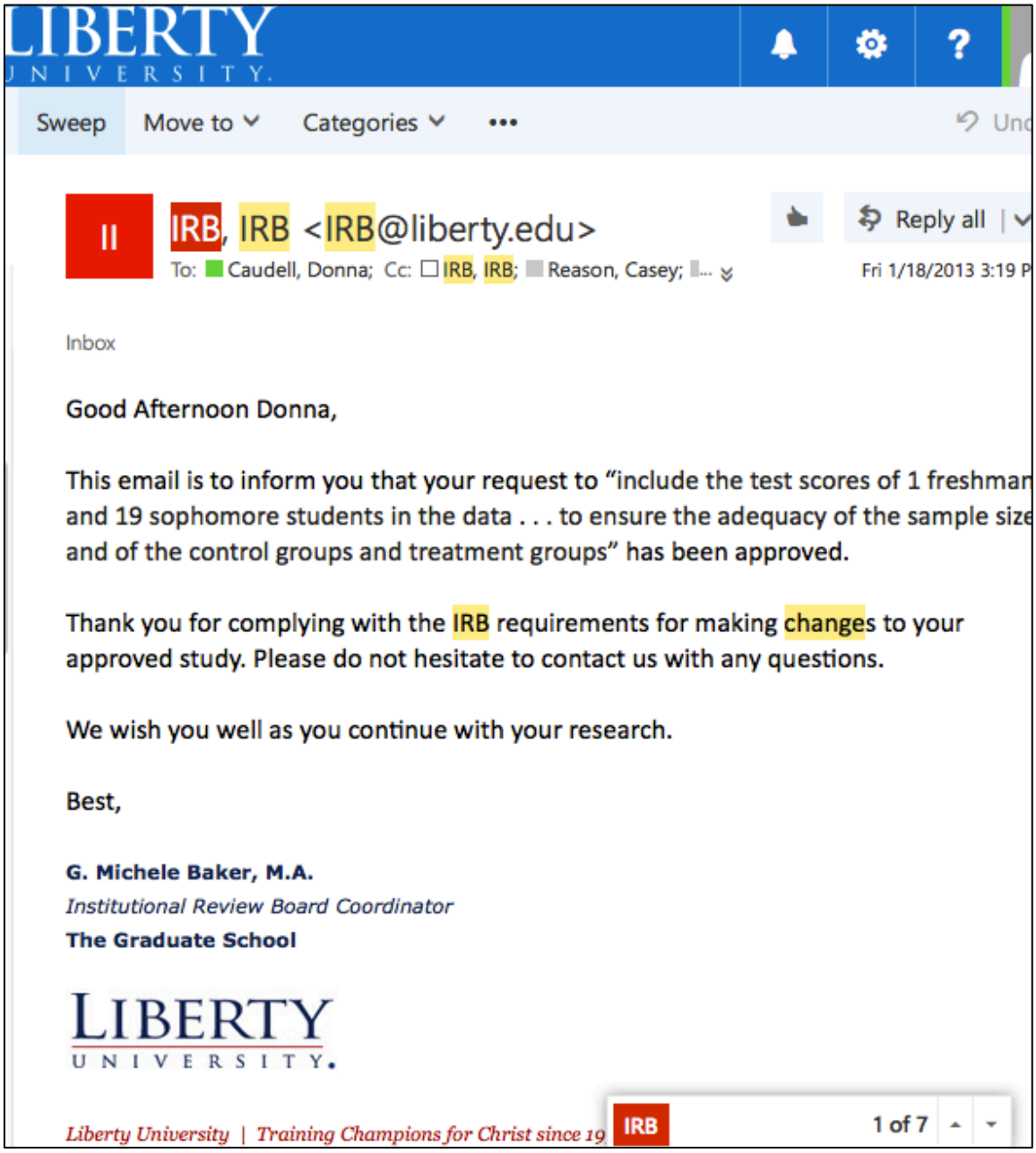

LIBERTY UNIVERSITY.

Sweep Move to Categories ••• Und

II IRB, IRB <IRB@liberty.edu>

To: Caudell, Donna; Cc: IRB, IRB; Reason, Casey; ...

Reply all | Fri 1/18/2013 3:19 P

Inbox

Good Afternoon Donna,

This email is to inform you that your request to "include the test scores of 1 freshman and 19 sophomore students in the data . . . to ensure the adequacy of the sample size and of the control groups and treatment groups" has been approved.

Thank you for complying with the IRB requirements for making changes to your approved study. Please do not hesitate to contact us with any questions.

We wish you well as you continue with your research.

Best,

G. Michele Baker, M.A.
Institutional Review Board Coordinator
The Graduate School

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IRB 1 of 7

APPENDIX E: Parent or Guardian Permission Letter

Dear Students and Parents:

My name is Donna Caudell. I currently work as the Sophomore Counselor at [redacted] School. Additionally, I am an Ed.D candidate in the School of Education at Liberty University, under the direction of Dr. Casey Reason. I am working to conduct research on a method that will help students pass the Georgia High School Graduation Tests. I am seeking students and high school completers, who still need to pass one or more of the Georgia High School Graduation Tests to participate in group guidance sessions using a curriculum entitled Student Success Skills. The Student Success Skills program has been very successful in helping students successfully complete the FCAT (Florida's Comprehensive Assessment Test), which is the test Florida students must pass to earn their high school diploma. You are receiving a copy of this invitation letter for your possible participation in this research project that seeks to explore the effectiveness of group guidance in helping students raise their scores on the Georgia High School Graduation Tests.

Students returning the attached Informed Consent Form will be randomly chosen to participate in eight 45-minute group guidance sessions which focus on skills that have been found to help students improve their test scores. Students will participate voluntarily and no incentive will be offered. Additionally, you will find attached to this letter an "Informed Consent" document that further explains the details of this research project. If you choose to participate in this project, please read and sign that document, then return it to me with the attached Participant Permission Form.

Your participation in this study is totally voluntary; nevertheless, your participation in each group guidance session will contribute to the success of this research and will be greatly appreciated. Your participation will contribute valuable information to the knowledge on best practices for assisting students in increasing their test scores. All information on your participation in the group and any identifying information will be kept confidential to the extent allowed by law. Please understand that students will be randomly assigned to groups and some of these groups may not actively participate in the group sessions. These students will be considered as the control group and only their anonymous test scores will be used in the study.

I'd like to assure you that your consent to participate will not affect your classroom grades or any other aspect of your student life at HCHS and that you have the right to not participate or withdraw from participation at

anytime without prejudice, penalty or loss of benefits to which otherwise entitled. Finally, the results of the research study may be published, but neither your name nor any other identifying information will be published.

Should you have any questions concerning this research study, please call me at (706) 778-7161, ext. 1130 or email me at dcaudell@habershamschools.com Thank you for your time and help in advance.

Sincerely,

Donna A. Caudell, Ed.D Candidate

dcaudell@liberty.edu

706-778-7161, ext. 1130

APPENDIX F: Student Participation Consent Form

CONSENT FORM

THE EFFECT OF GROUP COUNSELING INTERVENTION ON THE PERFORMANCE OF RURAL STUDENTS ON THE GEORGIA HIGH SCHOOL GRADUATION TESTS OR END-OF-COURSE TESTS

Donna A. Caudell
Liberty University
Department of Education

You are invited to be in a research study to determine if participating in the group guidance portion of the Student Success Skills program helps students pass the Georgia High School Graduation Test. You were selected as a possible participant because you still have one or more Georgia High School Graduation Tests to successfully complete. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Donna A. Caudell, Liberty University Department of Education.

Background Information:

The purpose of this study is to determine if the 8-week guidance portion of the Student Success Skills program could statistically impact the Georgia High School Graduation Test scores of students who had previously failed at least one portion of the Georgia High School Graduation Test.

Procedures:

If you agree to participate in this study, we would ask you to do the following things:

1. Attend eight 45-minute group guidance sessions, conducted by Mrs. Caudell (Sophomore Counselor). These sessions will be scheduled before, during, or after school, depending on what works best with all group members' schedules.
2. Listen and treat all other group members with respect.
3. Complete the goals you set for yourself at each group guidance session before the next session.
4. Take the Georgia High School Graduation Test that you still need to pass during the spring 2013 administration of the tests.
5. Maintain confidentiality of everything done and discussed during the group guidance sessions. While the information discussed in these group sessions will be academic and social in nature, no on will be asked to discuss information that is too personal or private to them. Respect for others, however, indicates that all things discussed in these group guidance sessions are considered confidential and should not be discussed with anyone outside of the group. There will be no audio or video taping of these group sessions.

Risks and Benefits of participating in the Study:

There are no risks involved in participating in this study that are greater than you face in your everyday school life.

The study has several risks:

1. Participation in this study does not guarantee that you will pass your Georgia High School Graduation Test.
2. If the meeting time of the group guidance session causes you to miss time from a class (no more than 45 minutes), you will be responsible to make up any work missed and may have to do that after school hours.
3. If you disclose information to the group or to Mrs. Caudell that indicates that you are being abused or harmed in any way, that you pose a risk of harming yourself in any way, or that you intend to harm someone else in any manner, Mrs. Caudell (as a mandated reporter) will be required to report this information to the proper agency or authority. Mrs. Caudell will discuss her concerns with you and will not make a report without your knowledge.

The benefits to participation are:

1. The group guidance sessions may help you pass the Georgia High School Graduation Tests.
2. This project may help you develop the skills for setting personal goals.
3. This research project may help you improve your ability to complete tasks and personal goals.
4. This project will expose you to methods for Social Problem Solving, which can be a large part of enjoying school and being successful.
5. The group guidance sessions will teach you the "Seven Keys to mastering any course" as part of the Study Skills curriculum.

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Compensation:

You will not receive payment or any form of compensation for participating in this research project.

Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

All records from this study will be stored in a locked vault in the Guidance Office of Habersham Central High School. The only persons who have access to this vault are HCHS Guidance Counselors, the HCHS Graduation Coach, HCHS teachers and HCHS administrators – all of whom have access to students' test scores as a routine part of their job in this school.

There are limits on confidentiality that cannot be controlled when working with students in a group setting. During the first group session, each student will sign an agreement not to discuss anything said in group sessions with persons outside of the group. Students are expected to abide by the agreement they will sign. If a student chooses to violate this agreement, however, this will be outside the control of the researcher.

The researcher (Mrs. Caudell) will not share anything said in the group with anyone outside the group, unless there is a statement of abuse, harm, or imminent danger as indicated in the previous "Risk" statement.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or Habersham Central High School. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is Donna A. Caudell. You may ask any questions you have now. If you have questions later, you are encouraged to contact Mrs. Caudell at dcaudell@habershamschools.com or 706-778-7161, ext. 1130. You are also welcome to come to the HCHS Guidance Office and speak with Mrs. Caudell with any questions or concerns you may have regarding this research project.

You may also contact the Liberty University faculty advisor for this study. He is Dr. Casey Reason (creason@liberty.edu). His phone number is 419-724-3391.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, or advisor, you are encouraged to contact the Institutional Review Board, Dr. Fernando Garzon, Chair, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at fgarzon@liberty.edu.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature: _____ Date: _____

Signature of Investigator:_____ Date: _____

IRB Code Numbers: [Risk]

IRB Expiration Date: [Risk]