

THE EFFECTS OF THE STUDENT SUCCESS SKILLS PROGRAM ON THE
BEHAVIORAL AND COGNITIVE ENGAGEMENT OF GRADE 5 EXCEPTIONAL
STUDENT EDUCATION STUDENTS

by

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A Dissertation Proposal Submitted to the Faculty of
The College of Education
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Doctor of Philosophy

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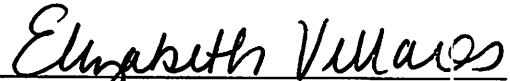
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This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Elizabeth Villares, Department of Counselor Education, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the College of Education and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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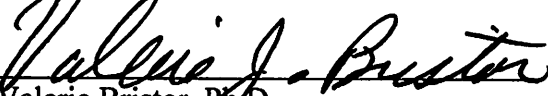


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ABSTRACT

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Title: The Effects of the Student Success Skills Program on the Behavioral and Cognitive Engagement of Grade 5 Exceptional Education Students

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The purpose of this study was to examine non-identifying archival data from the 2012-2013 school year to assess the effect participation in the Student Success Skills (SSS) school counselor-led classroom guidance program (Brigman & Webb, 2010) had on the behavioral and cognitive engagement of grade 5 Exceptional Student Education (ESE) students serviced within the general education classroom setting. Data for this study was collected at three different intervals. School attendance data was collected on students during the 2012, 2013, and 2014 school years when students were enrolled in grades 4, 5, and 6 respectively. Pre-test self-report data was collected within two weeks prior to implementation of the SSS program. Posttest self-report data was collected within two weeks immediately following completion of the intervention and post-posttest self-report data was collected 30 weeks post-intervention. School counselors and classroom teachers were trained in the SSS program. Students received five 45 minute classroom

lessons delivered one week apart followed by three booster sessions delivered one month apart. Lessons were designed to teach cognitive, social, self-management, and test-taking skills. This study followed a randomized controlled trial (RCT) design. For the purposes of this study behavioral engagement was measured by school attendance data. Cognitive engagement was measured by the Test Anxiety and Metacognitive Activity scales of the Motivated Strategies for Learning Questionnaire (MSLQ) (Pintrich & DeGroot, 1990) and the Self-Regulation of Arousal scale of the Student Engagement in School Success Skills (SESSS) survey (Carey, Webb, Brigman, & Harrington, 2010). A series of multivariate analysis of covariance (MANCOVA) tests were conducted to determine whether or not there were statistically significant differences between the treatment and control groups. While no statistically significant differences were evident on the Metacognitive Activity scale, results indicated a statistically significant decrease in absences and test anxiety for students in the treatment group. Additionally, a statistically significant increase was evident on the Self-Regulation of Arousal scale for students in the treatment group. This study suggests that research-based school counseling programs delivered in small or large groups using inclusionary practices may be beneficial in supporting the academic achievement and social-emotional adjustment of ESE students.

DEDICATION

To my parents Keith and Sonia Fairclough, there are no words to express my deepest heartfelt gratitude. This work is the smallest token of my love and appreciation for all you do. You have been my greatest inspiration and blessing. The devotion you put into parenting has taught me discipline, work ethic, compassion, determination, and grace. Your unconditional love has been my soft landing spot through life's most challenging times. You have provided me with wisdom, guidance, and encouragement and I am a better person because of you. I will forever endeavor to maintain the pride you have always had in me. Simply stated, I love you.

THE EFFECTS OF THE STUDENT SUCCESS SKILLS PROGRAM ON THE
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LIST OF TABLES	xiii
I. INTRODUCTION.....	1
Problem/Significance of Problem.....	5
Purpose	6
Research Questions	7
Hypotheses	7
Null Hypothesis 1	7
Alternative Hypothesis 1	8
Null Hypothesis 2	8
Alternative Hypothesis 2	8
Null Hypothesis 3	8
Alternative Hypothesis 3	9
Null Hypothesis 4	9
Alternative Hypothesis 4	9
Definitions.....	9

Limitations	10
Assumptions	11
Study Design	11
Dependent Variables.....	12
Independent Variable.....	12
Summary and Outline of the Dissertation	12
II. LITERATURE REVIEW.....	14
Links between Academics and Social-Emotional Well-Being	17
Long-Term Student Outcomes	19
Behavioral Engagement Outcomes	21
Cognitive Engagement Outcomes	24
Interventions for ESE Students	26
MTSS.....	28
Self-Determined Learning Model of Instruction (SDLMI).....	30
The Coping Power Program	31
Student Success Skills.....	33
SSS Collaboration.....	37
Summary	38
III. METHODS	40
Sample Description	40

Participants	41
Treatment group.....	43
Control group.....	43
Study Design	44
Dependent Variables.....	44
Independent Variable.....	44
Data Source	44
Educational Data Warehouse (EDW).....	44
Instruments	45
The Motivated Strategies for Learning Questionnaire (MSLQ)	45
The Student Engagement in Success Skills Survey (SESSS).....	47
Research Questions	48
Hypotheses	48
Null Hypothesis 1	48
Alternative Hypothesis 1	49
Null Hypothesis 2	49
Alternative Hypothesis 2	49
Null Hypothesis 3	49
Alternative Hypothesis 3	49
Null Hypothesis 4	50

Alternative Hypothesis 4	50
Procedures	50
Treatment Fidelity in the RCT.....	52
Data Analysis	53
IV. RESULTS	55
Descriptive Data.....	55
Behavioral Engagement.....	56
Cognitive Engagement	57
The Motivated Strategies for Learning Questionnaire (MSLQ).....	57
The Student Engagement in School Success Skills (SESSS).....	58
Test of Hypotheses	58
Behavioral Engagement.....	59
Cognitive Engagement	61
Test Anxiety Subscale of the MSLQ.	61
Metacognitive Activity Scale of the MSLQ	63
Self-Regulation of Arousal Subscale of the SESSS	65
Summary of Hypotheses	67
Null Hypothesis 1	67
Alternative Hypothesis 1	67
Null Hypothesis 2	68

Alternative Hypothesis 2	68
Null Hypothesis 3	69
Alternative Hypothesis 3	69
Null Hypothesis 4	69
Alternative Hypothesis 4	70
Summary	70
V. DISCUSSION	71
Discussion of the Findings	71
Hypotheses.....	72
Hypothesis 1.....	72
Hypothesis 2.....	72
Hypothesis 3.....	73
Hypothesis 4.....	74
Connection Between Results and Counseling Literature	75
Methodological Implications.....	77
Implications for Future Research	78
Limitations	80
Summary and Conclusion	82
REFERENCES	84

LIST OF TABLES

Table 1. Treatment and Control Group Means, Standard Deviations, and Change Scores for School Attendance in terms of Absences	56
Table 2. Treatment and Control Group Means, Standard Deviations, and Change Scores for the MSLQ subscales	57
Table 3. Treatment and Control Group Means, Standard Deviations, and Change Scores for the SESSS subscales	58
Table 4. Summary Table for Univariate Analysis for Absentee Rate at Posttest 1 by Condition.....	60
Table 5. Summary Table for Univariate Analysis for Absentee Rate at Posttest 2 by Condition.....	60
Table 6. Summary of Univariate Analysis for Test Anxiety at Posttest 1 by Condition.....	62
Table 7. Summary of Univariate Analysis for Test Anxiety at Posttest 2 by Condition.....	62
Table 8. Summary of Univariate Analysis for the Metacognitive Activity Scale at Posttest 1 by Condition	64
Table 9. Summary of Univariate Analysis for the Metacognitive Activity Scale at Posttest 2 by Condition	64

Table 10. Summary of Univariate Analysis for Self-Regulation of Arousal at Posttest 1 by Condition	66
Table 11. Summary of Univariate Analysis for Self-Regulation of Arousal at Posttest 2 by Condition	66

I. INTRODUCTION

The goals of No Child Left Behind Act (NCLB) of 2001 were to enable students nationwide to obtain proficiency in the areas of math and reading by the 2013-2014 school year, ensure students were being instructed by highly qualified teachers, and provide safe, drug free educational environments conducive to learning (United States [U.S.] Department of Education, 2002; U.S. Department of Education, 2010; Yell, 2012). Although math was outlined in the plan, NCLB emphasized reading and primarily targeted students in the early elementary school years (U.S. Department of Education, 2002). NCLB intended to account for all children; therefore, considerations for school grading procedures were made for special populations or minority groups including English Language Learners (ELL), students on Free or Reduced Lunch (FRL), and Exceptional Student Education (ESE) students. According to the U.S. Department of Education (2010), NCLB contained flaws and students continued to fall into the achievement gap as frequently referenced in the educational literature (Hemphill, Vannemann, & Rahman, 2011; Miles & Stipek, 2006; Miranda, Webb, Brigman & Peluso, 2007; Vanneman, Hamilton, Baldwin, Anderson, & Rahman, 2009; Zhao, 2012). Therefore, the reauthorization of the Elementary and Secondary Education Act (ESEA, U.S. Department of Education, 2010) sought to further improve educational outcomes for the nation's diverse learners.

The ESEA acknowledges that ethnic minority students and those of low socio economic status (SES) historically experience academic and behavioral challenges at

higher rates than their majority, higher SES peers (Booker & Mitchell, 2011; Day-Vines & Terriquez, 2008; Khalifa, 2011). Negative school experiences in the early years also influence the behavioral and cognitive engagement of students. Behavioral engagement has been correlated with academic achievement and refers to the time students spend interacting with their learning environment (Downer, Rimm-Kaufman, & Pianta, 2007). Researchers found that high rates of absenteeism have a negative impact on student achievement and absenteeism is associated with lower test scores, truancy, and high school dropout rates (Cratty, 2012; Spencer, 2009).

Behavioral engagement is also related to cognitive engagement. Cognitive engagement can be viewed as a student's motivation to activate thought processes necessary for mastery of learning tasks. This potential for learning influences a student's ability to engage in self-regulatory behaviors that promote learning. Deficits in cognition are correlated with learning difficulties and special education considerations for struggling students (Händel, Lockl, Heydrich, Weinert, & Artelt, 2014). Additionally, students facing cognitive difficulties are likely to present with social-emotional concerns. For instance, students presenting with cognitive and academic skill deficits, particularly those who receive ESE services, are likely to experience test anxiety at higher rates than their non-disabled peers (Swanson & Howell, 1996).

Students with deficits in behavioral and cognitive engagement experience social-emotional challenges (Santiago, Kataoka, Forness, & Miranda, 2014). Students who are performing below grade level are inclined to view the school environment as less hospitable than their average to high achieving classmates. Below grade level and low SES ethnic minority students find being assessed on academic skills they have yet to

acquire particularly challenging and develop aversions towards their schoolwork and learning. As academic demands increase in response to testing requirements nationwide, students experience test anxiety which impacts their ability to learn test related concepts, increases negative self-concepts, and results in lower scores on standardized assessments of their academic achievement (Whitaker Sena, Lowe, & Lee, 2007). In addition, academically struggling students are less likely to receive positive reinforcement in the form of praise, tangible reinforcers, or passing grades (McIntosh, Sadler, & Brown, 2012). Rather they are likely subjected to corrective feedback and experience feelings of incompetency and social isolation within the classroom. These experiences can lead to disruptive patterns of behavior, aggression, withdrawal, and limited academic success (Filter & Horner, 2009).

As gaps in educational attainment and social-adjustment between struggling students and their peers increase, the responsiveness of classroom teachers becomes integral. School district policies recommend academically and behaviorally at-risk students be referred to Multi-Tiered Systems of Support (MTSS) teams for the development of interventions as soon as teachers observe declines in achievement or have concerns regarding their students' social-emotional adjustment (Florida's MTSS, 2011). Collaborative efforts of administration, classroom teachers, school counselors, and school psychologists are often necessary to identify research-based instructional strategies and interventions for remediating academic and social-emotional skills deficits. Mayes, Hines, and Harris (2014) emphasize the role school counselors' play in the academic and social-emotional development of students holding the counselors professionally responsible for consulting with other school personnel and advocating for the academic,

personal, and social needs of struggling students. Therefore, school counselors collaboratively serve on MTSS teams for the purpose of closing the achievement and opportunity gaps for struggling students and reducing ESE eligibility rates (Mayes et al., 2014).

Despite efforts of MTSS teams and team members, concerns over the existing achievement gap and over representation of ethnic minority and low SES students found eligible for ESE placement and services are warranted. Interventions are necessary to decrease referral rates for ESE. They are also important to assist with transitioning ESE students back to inclusive general education classroom settings (Balfanz & Byrnes, 2006). ESE training programs prepare teachers with a variety of instructional and behavioral strategies to address the diverse needs of the students (Niesyn, 2009). Additionally, the American School Counselor Association (ASCA, 2012) suggests school counselors must work collaboratively within schools to promote academic achievement, career, and social-emotional development in all students placing those with ESE eligibilities as target recipients of school counselor-led interventions, such as the Student Success Skills (SSS) classroom program (Brigman & Webb, 2010).

According to the Florida Department of Education (FLDOE), students who receive ESE services are those who have been identified with special learning needs including but not limited to Autism Spectrum Disorder, Deaf or Hard of Hearing, Emotional/Behavioral Disability, Gifted, Intellectual Disability, Language Impaired, Specific Learning Disabled, Speech Impaired, Traumatic Brain Injury, and Visual Impairment (2016). ESE refers to specially designed instructional programs for students with unique learning needs who require assistance to help them progress in public school

and to prepare them to transition to life post-graduation. At the time data for this study was conducted, the school district was providing ESE services to 37,241 students. This study was designed to specifically examine archival data to determine the impact of a school counselor-led intervention on ESE grade 5 students' behavioral and cognitive engagement.

Problem/Significance of Problem

Research findings have revealed ESE students are at increased risk for school failure and experience mental health difficulties at higher rates than their general education peers (Bond et al., 2007; Bowers, 2010; Henry, Knight, Thornberry, 2012; NAMI, 2013; Santiago et al., 2014; Specht, 2013). As a result, it is important to consider long-term outcomes as well as prevention and intervention strategies designed to target the unique needs of ESE students.

According to the FLDOE Bureau of Exceptional Education and Student Services 2014 Local Education Agency (LEA) Profile, 53% of ESE students graduated with a standard high school diploma during the 2012-2013 school year (FLDOE, 2014). While the state average for ESE student dropout rates was 11%, ESE students within the school district targeted for intervention in this study was almost double at 19% for the 2012-2013 school year (FLDOE, 2014). Identifying cost-effective research-based interventions targeting ESE students in the elementary years decreases the expense to remediate retained students.

Improvements in achievement, cognition, and social-emotional functioning contribute to a decrease in dropout rates, delinquency, crime, social welfare distributions, and long-term mental health needs (Willett, 2014). Additionally, longitudinal studies

monitored by the RAND Corporation indicate early intervention promotes higher levels of educational attainment thus promoting more successful transitions through adolescence and into adulthood (Karoly, Kilburn, & Cannon, 2005). Considering the College-Career Ready plan outlined in the 2010 Reauthorization of the ESEA, interventions that contribute to desirable post-secondary outcomes such as job acquisition or student enrollment in two to four year college or university programs result in increased earnings and tax revenue thus allowing elementary school students to eventually become productive contributors to society. While the Coping Power Program (Lochman et al., 2012; Lochman et al., 2014) and the Self-Determined Learning Model of Instruction (Mazzotti, Test, & Wood, 2013; Palmer & Wehmeyer, 2003), are programs that have been utilized as interventions for ESE students, this is the first SSS study to examine grade 5 ESE student archival data to determine the impact of providing a school counselor-led intervention on student behavioral and cognitive outcomes.

Purpose

The purpose of this study was to examine archival data for the effect participating in the SSS classroom program (Brigman & Webb, 2010) had on the behavioral and cognitive engagement of grade 5 ESE students serviced within general education classroom settings. This SSS classroom program was designed to support ESE students by teaching them specific cognitive, social, and self-management skills identified as being influential to school success.

Research Questions

1. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of behavioral engagement as measured by the school attendance data, when compared to ESE students who do not receive the intervention?
2. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of cognitive engagement as measured by the Test Anxiety Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), when compared to ESE students who do not receive the intervention?
3. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of cognitive engagement as measured by the Metacognitive Activity Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), when compared to ESE students who did not receive the intervention?
4. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of cognitive engagement as measured by the Self-Regulation of Arousal Scale of the Student Engagement in School Success Skills survey (SESSS), when compared to ESE students who did not receive the intervention?

Hypotheses

Null Hypothesis 1

HO₁: There will be no statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive the intervention.

Alternative Hypothesis 1

Alternative 1: There will be a statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive intervention.

Null Hypothesis 2

HO₂: There will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive the intervention.

Alternative Hypothesis 2

Alternative 2: There will be a statistically significant difference in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive the intervention.

Null Hypothesis 3

HO₃: There will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Metacognitive Activity Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive intervention.

Alternative Hypothesis 3

Alternative 3: There will be a statistically significant difference in reported levels of cognitive engagement, as measured by the Metacognitive Activity Scale of the Motivated Strategies for Learning Questionnaire, for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive intervention.

Null Hypothesis 4

HO₄: There will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the Student Engagement in School Success Skills (SESSS) survey, for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive intervention.

Alternative Hypothesis 4

Alternative 4: There will be a statistically significant difference in reported levels of cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the Student Engagement in School Success Skills (SESSS) survey, for grade 5 ESE students who receive the SSS classroom program and their ESE peer counterparts who did not receive intervention.

Definitions

1. **Exceptional Student Education** – Educational services delivered to students identified with special learning needs including but not limited to Autism Spectrum Disorder, Deaf or Hard of Hearing, Emotional/Behavioral Disability, Gifted, Intellectual Disability, Language Impaired, Specific Learning Disabled, Speech Impaired, Traumatic Brain Injury, and Visual Impairment (FLDOE, 2016).

2. **Behavioral engagement** – Motivational constructs such as persistence and effort that contribute to student attendance and participation in school based learning activities (Lin & Tsai, 2012; Sinatra, Heddy, & Lombardi, 2015).
3. **Cognitive engagement** – Student’s appraisal of the value of learning, willingness to fulfill motivational goals, and engagement in self-regulated behavior to engage in effortful tasks related to the effectiveness of learning (Al-Hendawi, 2012; Fredericks, Blumenfeld, & Paris, 2004; Linnenbrink & Pintrich, 2003; Zhu et al., 2009).
4. **Individualized Education Plan (IEP)** – A legally binding document designed by a special education team outlining goals and methods for achieving goals personalized to meet the needs of student’s identified with a disability.
5. **General education classroom** – Educational program designed for typically developing students structured to meet state and district performance standards for learning.
6. **Multi-Tiered System of Support (MTSS)** – Methods of providing leveled systems of instruction and intervention based on student need (Florida’s MTSS, 2011).

Limitations

The following study limitations exist:

- Data related to whether certified school counselors had prior teaching experience or ESE endorsements was not collected;
- Data for ESE students was examined from only one school district in the state of Florida;
- Data for inclusion classrooms within which certified general education teachers received support from certified ESE teachers was not delineated;

- Data for whether general education teachers had ESE endorsements was not available;
- Data for whether additional supports outlined within 504 Plans and the ESE student's IEP's was not available and may influence student progress; and
- Specific ESE eligibilities were not identified for students within the study.

Assumptions

Considering the range of and proximity of schools across the district, direct monitoring of school counselor-led, teacher supported interventions was not feasible; hence it is assumed that after receiving the one-day curriculum training workshop and completing fidelity logs to verify implementation of the program, school counselors and classroom teachers acquired the skills necessary to execute the interventions as recommended by the training facilitators. This study also assumes the volunteer general education teachers and ESE students are representative of the teacher-student population across the district. Additionally, voluntary participation by school counselors and classroom teachers in the study leads the researcher to assume they truthfully completed the electronic reporting logs according to the schedule outlined within the study. Finally, the researcher assumes that the non-identifying data provided for analysis was entered and verified with accuracy and reflects the students' perception at the time the study was originally conducted.

Study Design

This study examined archival data collected during a randomized control trial (RCT) of the SSS classroom program during the 2012-2013 school year (Webb, Brigman, Carey, & Villares, 2011). The data was assessed to determine whether participation in

the SSS classroom program increased levels of behavioral and cognitive engagement for grade 5 ESE students serviced within general education classroom environments. School counselors and classroom teachers attended a one-day curriculum-training workshop to learn how to implement the SSS classroom program. Five SSS lessons were delivered over the course of five consecutive weeks from October through November. Students also received three booster lessons once per month from January to March. SSS lessons targeted cognitive, social, and self-management skills. Grade 5 ESE students in the treatment group received the SSS classroom program. A control group consisting of grade 5 ESE students who did not receive the SSS intervention program was also included in the study.

Dependent Variables

Two dependent variables were included in this study:

1. Student behavioral engagement as measured by school attendance data; and
2. Student cognitive engagement as measured by the Test Anxiety and Metacognitive Activity Scales of the MSLQ and the SESSS.

Independent Variable

The SSS classroom guidance program (Brigman & Webb, 2010) implemented by certified school counselors and served as the independent variable.

Summary and Outline of the Dissertation

An emphasis on diverse learners, which encompasses those who receive ESE services, is targeted within the 2010 reauthorization of the ESEA. Students with ESE eligibilities are particularly at risk for school failure and poor social-emotional outcomes; hence, effective evidence-based interventions and inclusion initiatives that promote

improved outcomes for struggling students are in high demand. This study examined archival data collected during a RCT of the SSS classroom program (Webb et al., 2011) that included grade 5 ESE students from the 11th largest U.S. school district. The goal of the study is to assess the impact the SSS classroom program, delivered by certified school counselors and reinforced by general education classroom teachers, had on the behavioral and cognitive engagement of grade 5 ESE students serviced within general education classroom environments.

Chapter two examined the educational implications NCLB and the Reauthorization of ESEA (U.S. Department of Education, 2010) has on at-risk students. It will highlight academic outcomes for students who present with a history of poor academic achievement and social emotional delays. Additionally, the influence mental health factors have on the academic outcomes and self-perceptions of students will be explored, along with resiliency factors and the potential effect school counseling interventions have on students who present with challenges that limit their experience of school success.

Chapter three will provide a detailed description of the participants, study design, instrumentation, research questions, hypotheses, procedures, and data analysis selected for use within this study. Results of this study will be presented in Chapter four while Chapter five will include a discussion of the results, their limitations and implications, as well as potential contributions this study may have to future research.

II. LITERATURE REVIEW

The NCLB Act of 2001, originally known as the Elementary and Secondary Education Act (ESEA), was signed into legislation by former U.S. President George W. Bush (U.S. Department of Education, 2002). It was designed to increase accountability and academic achievement for schools and students respectively. An executive summary distributed by the U.S. Department of Education (2002) targeted four areas for improvement. It delineated increased accountability for states, school districts, and schools. School choice options became available to parents of children attending low performing schools. These options included transferring their children to public or charter schools and/or provided financial vouchers for parents to enroll their children in privately operated or parochial schools. In addition to accountability and school choice, NCLB also gave states and educational agencies more flexibility in their use of federal education dollars. Finally, an emphasis in the area of reading targeting students in the early elementary school years was identified as a goal (U.S. Department of Education, 2002).

The long-term and primary goals of NCLB were to enable all students to obtain proficiency in the areas of math and reading by the 2013-2014 school year, ensure students were being instructed by highly qualified teachers, and provide safe, drug free educational environments conducive to learning (Yell, 2012). Also built into NCLB, were commitments to increase graduation rates as well as the English proficiency of English Language Learner (ELL) students (Yell, 2012). This consistent commitment to education over the years yielded educational statistics targeting the outcomes of our

nation's school children. In 2010, despite efforts of NCLB to improve student outcomes, the U.S. continued to rank behind at least 10 other countries as it relates to academic achievement (U.S. Department of Education, 2010). As a result, NCLB was replaced by the Reauthorization of ESEA which was designed to narrow the achievement gap, improve the quality of instruction delivered within the nation's public schools, provide equity in education, and to improve overall outcomes for all children (U.S. Department of Education, 2010).

Research that supports the nation's ability to remain competitive in a constantly evolving economic world is often the catalyst for change. Harvard University's Program on Education Policy and Governance found children in countries such as Chile and Latvia were making academic gains three times faster than U.S. students (Hanushek, Peterson, & Woessmann, 2012). Hanushek et al. (2012) reported that students in Germany, Portugal, and Hong Kong doubled their rates of improvement compared to U.S. students over the course of 14 years. These figures equated to approximately two years of learning amongst students in foreign countries as compared to those students residing in the U.S. (Hanushek et al., 2012).

The findings of Harvard University's Program on Education Policy and Governance have implications for students identified as at-risk for academic failure and delinquency based on combinations of SES, ethnic affiliation, school achievement, teacher expectations, social-emotional functioning, and self-determination (Hanushek et al., 2012). Their longitudinal study found wide variability in progress and success rates across states within the U.S. similar to those in their international studies. Additionally, taking into consideration the three benchmarks for student performance, advanced,

proficient, and basic, as set by the National Assessment of Educational Progress (NAEP), 60% of grade 4 students and 65% of grade 8 students were below proficiency in the area of math, the only area reported based on what was described as the area with the greatest gains during the time of study (Hanushek et al., 2012). Such discrepancies in achievement increase risks for academic failure and potential placement into ESE programs (Lochman et al., 2012). Based on data from the NAEP, the Editorial Projects in Education (EPE) research center reported 5% of grade 12 students with disabilities were proficient in reading compared to 31% of their non-disabled peers (Kosiewicz, 2008). According to Kosiewicz (2008) the EPE indicated 73% of grade 12 students with disabilities were below basic levels of reading proficiency as compared to 25% of their non-disabled peers.

Gaps in educational attainment for ethnic minority and ESE students make them susceptible to poor social-emotional outcomes. Students presenting with lower academic skills than their peers are inclined to view the school environment as less hospitable than their average to high achieving classmates (McIntosh et al., 2012). These students are challenged with academic tasks assessing skills they have yet to acquire and develop aversions towards their schoolwork and learning. In addition, McIntosh et al. (2012) indicated they are less likely to receive positive reinforcement in the form of praise, tangible reinforcers, or good grades. Rather they are more likely to be subjected to corrective feedback and experience feelings of incompetency and social isolation within the classroom. These experiences can lead to disruptive patterns of behavior such as aggression, withdrawal, and limited academic success (Filter & Horner, 2009).

Historically, ethnic minority groups and those of low socio-economic status (SES)

experience academic and behavioral challenges at higher rates than ethnic majority groups of higher SES (Adams, Benschhoff, & Harrington, 2007; Booker & Mitchell, 2011; Decker, Dona, & Christenson, 2007; Vazsonyi & Chen, 2010). Negative school experiences in the early years influence educational and social-emotional outcomes. This review of the literature serves to explore the link between achievement and the social-emotional well-being of at-risk and/or ethnic minority students and long-term outcomes for students who experience limited school success. The influence teacher trainings and expectations have on outcomes for ESE students will also be examined. External and internal resiliency factors for children are discussed within before addressing proactive intervention services and support systems which have been found to influence academic and behavioral outcomes for at-risk and/or ethnic minority students.

Links between Academics and Social-Emotional Well-Being

The Reauthorization of the ESEA (U.S. Department of Education, 2010) acknowledges the need for improved educational outcomes for all students. It not only urges states to close the achievement gap between Caucasian, African American, and Latino/Latina students, the ESEA calls for appropriate instruction, access to rigorous curriculums, additional supports, and inclusionary practices for diverse learners (U.S. Department of Education, 2010). While the Reauthorization of ESEA also targets improved teacher and administrative effectiveness, home-school collaboration, increased support and interventions for America's lowest performing schools, and college and career readiness standards for all students, like NCLB it does not directly address the social-emotional challenges faced by students who have spent time, for some, years, struggling to meet even minimum levels of state mandated standards for academic

achievement.

Academic achievement can be adversely impacted by a variety of factors. For decades advantageous interventions as well as pernicious outcomes of low achieving students across all ethnic and socio-economic subgroups have been researched and reported. Correlations have been drawn between academic achievement and variables including, but not limited to, race, poverty, grade retention, behavior, truancy, dropout rates, substance abuse, and delinquency (Bachman et al., 2008; Dishion, Nelson, & Yasui, 2005; Downer et al., 2007; Henry et al., 2012; Khalifa, 2011). Researchers indicate that scholastic and behavior problems coexist within societal groups experiencing social and academic strife (Mistry, Biesanz, Chien, Howes, & Benner, 2008). These risk factors impact and/or contribute to academic underachievement and school disengagement.

Areas of research specific to some of the aforementioned risk factors include disparities between ethnic and socio-economic groups, which have been linked to long-term public health concerns (Woolf, 2007). Berliner (2009) reported that many children from low-income households have attended three or more schools by the time they are in the third grade making them, by age eight, 20% more likely to drop out by the time they reach high school. These same children are also at risk for increased behavioral challenges over time. Behavioral indicators specific to active engagement in academic tasks such as time spent reading aloud or silently have been linked to school success (Downer et al., 2007). One study found deficits in the area of reading and on-task behaviors documented as early as grade 1 to be consistent with poor reading achievement and decreased amounts of academic engaged time in grade 3 (Morgan, Farkas, Tufis, &

Sperling, 2008). By grade 6, students plagued with academic failures have been found to have poor school attendance, engage in more antisocial behaviors, begin experimenting with alcohol and drugs, and become engaged in gang activities by the time they enter high school (Bond et al., 2007; Henry, 2010). Delinquency risks reportedly increase between the ages of eight and fourteen (Vazsonyi & Chen 2010). Academic skill deficits paired with truancy, substance abuse, and engagement in anti-social behaviors are influential factors in high school dropout rates. As such, these young adults are at increased risk for being incarcerated and present with a higher likelihood of dependence on public assistance (Moretti, 2005; Vazsonyi & Keiley, 2007; Waldfogel, Garfinkel, & Kelly, 2005).

The National Alliance on Mental Illness (NAMI) reports more than 13% of children ages 8 to 15 and 20% of youth ages 13 to 18 experience severe mental health disorders, while more than 50% of students ages 14 and older with mental health disorders who receive ESE services eventually drop out of school (NAMI, 2013). Additionally, ESE students with mental health disorders represent the highest dropout rates of all disability groups (NAMI, 2013). Research findings such as these make it necessary for our nation to provide social services support for at risk children and families. In addition, educational modifications and early intervention services within communities and schools have become imperative in an effort to change the trajectory for students struggling to meet and maintain levels of proficiency.

Long-Term Student Outcomes

With research findings linking ESE eligibilities, mental health status, and dropout rates it is important to consider the long-term impact these variables have on students'

self-efficacy and ability to function independently beyond the school environment. Toldson, Woodson, Braithwaite, Holliday, and Rosa (2010) found that African American males detained by the juvenile justice system reportedly score lower on measures of self-efficacy, depression, and trauma and higher on measures of delinquency. In addition, these students were more likely to report earning failing grades in school prior to being detained (Toldson et al., 2010). Attempts have been made to link risk factors and poor achievement to social maladjustment in adulthood (Kokko & Pulkkinen, 2000). While each has been found to influence the other, researchers have been inconsistent at drawing a direct relationship between high school dropout rates and delinquency in adulthood (Bowers, 2010; Sweeten, Bushway & Paternoster, 2009). Rather, factors leading up to dropout were more predictive of criminal activity in adulthood and early risk factors as poor school attendance, low achievement on standardized test, a history of school discipline referrals, in and out of school suspensions, course failures, and low grade point average have been identified in the literature (Henry et al., 2012). Each variable is believed to be a contributing factor in declining levels of school engagement. School disengagement implies student ambivalence to school success and inevitably results in academic underachievement over time (Henry et al., 2012).

Although life circumstances and internal child factors influence student outcomes, classroom environment can also be influential as it relates to student engagement. Individual students vary in their reactions to identical environmental structures and stimuli resulting in different academic and behavioral outcomes. Student engagement has been linked to cognition, social-emotional development, and academic achievement (Downer et al., 2007). Review of the literature reveals that student/school engagement is

linked to academic achievement and a correlation was found between increased levels of academic engaged time and high quality instruction for at-risk students (Downer et al., 2007).

Behavioral Engagement Outcomes

Taken from Bronfenbrenner and Morris' (2006) bioecological model which linked components of the learning environment to student engagement, Downer et al. defined behavioral engagement as “moments when children are interacting with their physical and social environment in ways that produce learning” (2007, p. 414).

Hirschfield and Gasper (2011) defined behavioral engagement as the active participation of students in academic and extra-curricular school-based activities while Strambler and Weinstein (2010) added compliance to school rules as a component of behavioral engagement for students. Although there appears to be no universal definition of behavioral engagement, researchers consistently link behavioral engagement to the participatory actions of students within the school environment and the influence their engagement has on learning (Downer et al., 2007; Hirschfield & Gasper, 2011). At a fundamental level, student participation in learning begins with their presence or attendance as recipients for instruction. Consequently, lack of attendance, or absenteeism, is indicative of school disengagement.

Absentee rates as a measure of behavioral engagement have been found to influence school achievement (Gottfried, 2010, 2011; Morrissey, Hutchison, & Winsler, 2014; Webb-Landman, 2012). High absentee rates decrease a students' exposure to instruction placing them at risk for poor grades, lower standardized test scores, grade retention, and increased chance for dropping out before completing high school

(Gottfried, 2010). Low SES status has been considered as influential when considering rates of attendance for students. Parents falling within lower income brackets are presumed to endure socio-economic struggles (e.g., housing, transportation, and job stability) more often than higher SES parents making consistent presentation of their children at school particularly challenging (Ready, 2010; Romero & Lee, 2007). Balfanz and Byrnes (2006) found middle school students of minority and or low SES status who struggle to make gains in math achievement also had high absentee rates dating back to grade 4. When reviewing a national sample of Kindergarten students, Gottfried (2014) indicated ethnic minority and low SES Kindergarten students experience the highest rates of absences compared to elementary school students in grades 1 through 5.

Based on a national data set compiled by the U.S. Department of Education's National Center for Educational Statistics (NCES, 2011), Gottfried (2014) assessed the influence school attendance had on academic achievement as well as the educational and social engagement of Kindergarten students. Findings indicated students who were chronically absent had lower test scores in reading (-0.17σ) and math (-0.20σ). Teacher rating scales assessing educational engagement as measured by students' approach to learning (-0.16σ) and their eagerness to learn (-0.23σ) revealed chronically absent students were less adept in both areas. Measures of social engagement were analyzed in the areas of interpersonal skills, self-control, internalizing, and externalizing problems. Results indicated chronic absentees were comparable to their peers as it relates to their interpersonal skills and self-control and were not more likely to engage in problematic externalizing behaviors. On the other hand, a strong effect size (0.17σ) were observed for

internalizing problems which Gottfried (2014) associated with feelings of isolation and withdrawal from learning and school activities.

The correlation between high absentee rates and poor achievement increases the likelihood chronically absent students will be referred and meet eligibility criteria for ESE services as the achievement gap increases between these students and their peers. ESE students reportedly have higher rate of absences than general education students and by the time they reach high school their ability to engage in self-determined behaviors that promote learning has depreciated (Herron & Martin, 2015; Pierson, Carter, Lane, & Glaeser, 2008). ESE students with high absentee rates become disengaged from school as they are subjected to a variety of remedial approaches which further isolate them from the school environment and social relationships with adults and peers (Hirschfield & Gasper, 2011). Gottfried (2010) found low SES and ESE students, particularly those with behavioral concerns, had higher rates of absences for unexcused reasons compared to students with other demographic identifiers (e.g., Kindergarten attendance, English Language Learner status, special education eligibilities). Specht (2013) points out ESE students receive negative messages about their abilities and this influences their belief systems as it relates to their strengths, weaknesses, self-esteem, and sense of belonging. Exclusionary practices which segregate ESE students from their general education peers can increase the likelihood they will continue to meet with social and academic failure as they progress through their academic career and become disengaged from the learning experience (Specht, 2013). For this reason intervention and inclusionary practices are necessary to change the trajectory for these students.

Specht (2013) proposed creating school environments that reduce alienation of ESE students to increase their attendance and overall behavioral engagement in school related academic and extra-curricular activities. Rea, McLaughlin, and Walther-Thomas (2002) examined the influence participating in general education inclusion classrooms had on the academic achievement and school attendance of ESE students. They found ESE students who participated in inclusive classroom settings achieved higher grades than ESE students serviced within resource rooms. Additionally, these students had fewer absences and it was speculated that having an opportunity to participate in inclusive classrooms motivated students to become actively engaged in learning.

When contemplating behavioral engagement Guardino and Fullerton (2010) suggested classroom modifications as an intervention to increase the time ESE students spend actively engaged in academic tasks. The researchers worked collaboratively with a grade 4, inclusion teacher to restructure her classroom in ways the teacher felt would have the most impact on the disruptive behaviors of her students. While students were actively engaged less than three percent of the time during the collection of baseline data, during the intervention phase, active engaged time increased to 45% and data showed an immediate decrease in disruptive behaviors within the inclusive classroom setting

Cognitive Engagement Outcomes

To achieve academic success behavioral and cognitive engagement is essential. Cognitive engagement refers to a student's motivation, willingness, mental labor, investment and capacity to apply strategies to problem solve tasks that promote learning (Downer et al., 2007; Händel et al., 2014; Hirschfield & Gasper, 2011). Cognition is multi-faceted and can be broken down into components of memory, processing,

comprehension, strategy acquisition and application (Haberkorn, Lockl, Pohl, Ebert, & Weinert, 2014). A students' ability to engage in metacognitive activities influences their success in the classroom. Sideridis, Morgan, Botsas, Padeliadu, and Fuchs (2006) report that deficits in cognition, motivation and behavior negatively impact academic achievement. They suggest students with low cognitive abilities have greater difficulty processing information and struggle to retain academic concepts placing them at risk for decreased motivation and engagement in more task avoidant behaviors. These students eventually become behaviorally and cognitively disengaged from the learning environment and are more likely to be referred for ESE services (Sideridis et al., 2006). Research conducted by Sideridis et al. (2006) was aimed at assessing the influence motivation, cognition, and social-emotional factors had on the identification of grade 5 students with learning disabilities. Results indicated all three variables were strong predictors of at-risk student referrals for ESE services as well as students deemed eligible for ESE learning disabled services (Sideridis et al., 2006).

Händel et al. (2014) also suggest metacognitive knowledge and processing are strong predictors of academic achievement. Students with deficits in metacognition have difficulty using and generalizing learning strategies. As a result they struggle to meet academic goals and are more likely to require support through ESE programs. Händel et al. (2014) assessed metacognitive knowledge in students with special education needs. Test items were read aloud to students in the treatment group as an accommodation for reading deficits. Results indicated students with disabilities scored lower on assessments of metacognitive knowledge. Additionally, while researchers found reading items aloud

to students increased the quantity of items completed, it did not enable students to process the information more efficiently or increase test scores.

Effective readers are said to employ metacognitive knowledge and processes enabling them to understand and interpret reading materials with greater meaning. Struggling readers do not exhibit metacognitive skills in this pattern, have difficulty learning cognitive strategies, are less likely to self-monitor for understanding while reading, and are ineffective at applying strategies that promote reading achievement (Cantrell et al., 2014). Struggling grade 6 readers who participated in a supplemental reading program which provided direct instruction in metacognition for one year reported higher levels of cognitive engagement and strategy use post-intervention (Cantrell et al., 2014). Researchers noted, despite improvements in cognitive engagement and strategy use, no significant improvements were documented for students on standardized reading assessments and posit more time may be needed to note reading gains as engagement and achievement may not occur concurrently (Cantrell et al., 2014).

Interventions for ESE Students

A review of the research conducted by Jones, Higgins, Brandon, Cote, and Dobbins (2013) specific to young children with disabilities concluded that by promoting resiliency factors such as self-esteem, optimism, self-awareness, problem-solving skills, and autonomy in early childhood, children are more likely to experience school success despite their special education status. Many students present with resiliency factors, also referred to as protective factors, which contribute to their overall success and response to interventions. Burley, Barnard-Brak, Marbley, and Deason (2010) referred to resiliency as a “positive adaptation in the face of present or past adversity” (p. 48). They went on to

identify some of these factors as having high expectations set by caring individuals, support from family, friends, and teachers, participation in selfless acts of community involvement such as volunteering, guided self-esteem development, exposure to college and career preparatory programs, and an instilled value for diversity. Investigating the correlation between risk factors (e.g., homelessness, low SES, posttraumatic stress disorder [PTSD], dysfunctional family dynamics, mental illness) and outcomes facilitates the development of interventions (Jones et al., 2013). Conversely, careful assessment of resiliency factors and positive student outcomes helps researchers and educators identify effective research-based interventions for use with at-risk, minority, and ESE students alike.

Schools are often compelled to design well-rounded programs that encompass the social-emotional development of at-risk students while contributing to their academic achievement within their traditional school environment. As a result, it is important to embed protective factors in school based intervention programs. Present research is limited as it relates to interventions designed to specifically address the academic and social-emotional needs of ESE students. In an effort to address the overrepresentation of minority, low SES, and low-achieving students in ESE programs, the Individuals with Disabilities Education Act (IDEA) was modified to be known as the Individuals with Disabilities Education Improvement Act of 2004 (IDEA Regulations, 2004). Included in the revision were changes to student eligibility criteria for specific learning disabled services. New policies require students presenting with academic or behavioral skill deficits receive research based instruction and interventions. This process has been termed Response to Intervention (RtI) and more recently modified to Multi-Tiered

System of Supports (MTSS). MTSS bases a student's need for remedial services on their responsiveness to interventions implemented within a 3-tiered approach (Hughes & Dexter, 2008). Tier 1 or Universal Supports references the general education classroom and curriculum, Tier 2 known as Supplemental Supports includes students targeted for interventions based on at-risk characteristics, and Tier 3 deemed Intensive Supports provides intensive small group interventions and comprehensive evaluations for students who are unresponsive to intervention strategies (Barton & Stepanek, 2009).

MTSS

The MTSS process is consistent with the Reauthorization of the ESEA, which encourages schools to implement research based programs and interventions. Monitoring and data collection specific to student progress is required. In addition, adjustments are made to instruction and or interventions based on the individual needs of each student being monitored for success (Lembke, Garman, Deno, & Stecker, 2010). MTSS is considered a team approach and includes classroom teachers, administrative personnel and support staff such as behavior interventionists, school psychologists, resource teachers, and professional school counselors. Research conducted by Lembke et al. (2010) revealed an increase in students at Tier 1 – Universal Supports level and a decrease in students at Tier 3 – Intensive Supports level specific to those identified in need of academic support based on collaboration of the MTSS team, implementation of school counselor and teacher led classroom interventions, and ongoing analysis of progress monitoring data.

MTSS is also designed to address individual behavior concerns. It provides behavioral supports and interventions for students who struggle to self-regulate their

behaviors and express feelings of frustration, sadness or anger effectively. MTSS strategies for behavior include school wide positive behavior interventions and supports, mentoring within the school setting, social skills training, functional behavior analyses, and the development of behavior intervention plans and reinforcers (Cheney, Flower, & Templeton, 2008). Keeping with standards outlined in the Reauthorization of the ESEA, decisions for student programming are data driven. Teams delegate responsibilities for progress monitoring. Student progress is tracked through a variety of measures including teacher rating scales, daily progress notes, discipline referrals, attendance records, and daily point sheets (Cheney et al., 2008).

MTSS supports the identification of students at-risk for academic and/or behavior challenges through screenings at Tier 1. School counselors are particularly instrumental in providing support through Tier 1 interventions for students who present with social-emotional or behavioral concerns (Lochman et al., 2012; Martens & Andreen, 2013). As these practices evolve across the nation, identification and intervention practices may ameliorate academic and behavioral outcomes for students as early as pre-kindergarten. However, as documented earlier, government spending on educational reforms has not necessarily resulted in significant improvements for U.S students. When evaluating interventions for use with students at risk for academic failure and behavioral challenges, educators much consider the intervention's accessibility, ease of delivery, and monetary expenses.

Ryan, Pierce, and Mooney (2008) conducted a meta-analysis on evidence based teacher practices which were effective at reducing behavior and increasing the academic achievement of ESE students who had emotional and behavioral disabilities. By

calculating the standard mean difference they found over 90% of the studies reviewed indicated positive behavioral and academic outcomes for emotionally/behaviorally disabled (EBD) students who received teacher-led strategy instruction. An overall large effect size (ES) of $d = 1.05$ was calculated (Cohen, 1988). The greatest academic gains were documented in the area of reading. Effect sizes for EBD students who were taught self-mediated interventions were also large ranging from $d = 1.13$ specific to students ability to engage in self-evaluations to $d = 1.90$ as it relates to their mastery of strategy instruction in the area of self-monitoring. Additionally, learning strategies such as goal setting, choice making, and the implications of self-mediated consequence interventions reportedly contributed to academic gains for EBD students in the areas of reading, math, and science.

Self-Determined Learning Model of Instruction (SDLMI)

The Self-Determined Learning Model of Instruction (SDLMI) developed by Palmer and Wehmeyer (2003) to examine the effect strategy instruction had on self-determination skills and disruptive behaviors. The SDLMI encompasses choice making, problem solving, self-monitoring, goal-setting, and self-evaluation. Mazzotti et al., (2013) documented SDLMI's effectiveness with at-risk and special needs populations including but not limited to those with eligibilities in the areas of Autism Spectrum Disorders and Intellectual Disabilities. The SDLMI included 8 lessons in self-determination skills delivered in three parts. Part one included lessons 1 through 3. Part two included lessons 4 through 6 and part three included lessons 7 and 8. Lessons were delivered sequentially using computer assisted instruction (CAI) in 15-minute sessions five days per week. Students progressed through the SDLMI program by achieving

mastery set at 78% on the end of session assessments for two consecutive days. Students who did not meet mastery in any of the three program parts participated in booster sessions to remediate sections of the SDLMI program they had difficulty mastering. A single subject multiple probe experimental design was utilized in this study.

Additionally, a control group of students identified by their classroom teachers as positive behavioral role models was used to determine whether behavior change in the study participants fell within the socially acceptable range (Mazzotti et al., 2013).

Findings indicated an increase in student knowledge of self-determination skills and a decrease in disruptive behaviors for students with behavioral disabilities included in their study. However, the researchers failed to report an intervention ES and no real measures of association/inferential statistics were provided.

The Coping Power Program

Promoting self-determination within ESE is essential as is putting into place strategies that facilitate academic growth for students performing below grade level specifically in reading and math. The Coping Power program is a school counselor-led intervention program, which targets elementary school students who present with a significant number of aggressive behaviors (Lochman et al., 2014). It uses cognitive behavioral strategies to improve peer relations, emotional self-regulation, and problem-solving skills of students at-risk for academic failure and social maladjustment. The Coping Power program consists of small group direct instruction in self-determination skills delivered in 60 minute sessions 1 day per week for 34 weeks. Studies have documented significant declines in disruptive behaviors for these students after receiving small group school counselor-led intervention with the Coping Power program (Lochman

et al., 2014; Peterson, Hamilton, & Russell, 2009; van de Wiel et al. 2007). Lochman et al. (2012) expanded their 2009 study, which reported decreases in externalizing problems and improved social skills and academic engaged behaviors for students with disruptive behaviors. A two-year follow-up longitudinal study was conducted to see if ESE students with improved behaviors from the 2009 study would demonstrate improvements as they relate to their academic achievement in language arts and math (Lochman et al., 2012). Similar to elements of the SDLMI, school counselors received intensive training in the components of Coping Power which included goal setting, social problem solving, anger management, developing positive peer relationships, organization and study skills, emotional awareness, perspective taking, and resistance to negative peer pressures (Lochman, Wells, & Lenhart, 2008). Weekly small group instruction was delivered to ESE students who received services for emotional disabilities, developmental delays, learning disabilities, and other health impairments.

Two years after intervention the Coping Power program did not yield improved grades in math for special education students who displayed aggressive behaviors compared to their peers in the control group also receiving special education services. The overall effect on language arts grades was statistically significant ($\beta = 1.00$, $t = 2.13$, $df = 36$, $p = .040$) indicating ESE students targeted for intensive school counselor-led intervention using the Coping Powers program had better grades than ESE students in the control group. The SDLMI and Coping Powers programs provide direct instruction in self-determination for ESE students but do not utilize inclusive strategies in alignment with the Individuals with Disabilities Education Improvement Act (2004), the Reauthorization of ESEA (U.S. Department of Education, 2010), or ASCA (2012).

Student Success Skills

The Student Success Skills (SSS) is another school counselor-led evidenced-based intervention program (Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Campbell & Brigman, 2005; Lemberger & Clemens, 2012; León, Villares, Brigman, Webb, & Peluso, 2011; Webb, Brigman, & Campbell, 2005; Villares, Frain, Brigman, Webb, & Peluso, 2012). It provides structured classroom guidance lessons which target cognitive and meta-cognitive skills, social skills, and self-management skills within the inclusionary general education classroom setting (Brigman & Webb, 2010). It is based on the premise that teaching students these core skills in a supportive encouraging environment increases student motivation, self-efficacy, and confidence in their abilities. Development of the SSS program was influenced by studies that analyzed 50 years of research findings regarding social-psychological factors that contribute to learning outcomes for successful students. Interventions aimed at study skills and constructs such as attachment, resiliency, self-regulation, and social skills served as the basis for which the SSS program was built (Hattie, Biggs, & Purdie, 1996; Masten & Coatsworth, 1998; Wang, Haertel, & Walberg, 1994; Zin, Weissberg, Wang, & Walberg, 2004). The SSS program emphasizes a humanistic approach, which includes concepts of self-actualization, empathy, personalized goal setting, and self-esteem. In addition, SSS has been designed to maximize students' potential enabling them long-term to become productive members of society (Lemberger, 2010; Patterson, 1973; Villares, Lemberger, Brigman and Webb, 2011). Researchers also indicate that embedding social-emotional competencies in academic instruction could potentially yield improved social-emotional, behavioral, and academic outcomes for at-risk students (Mariani, Webb, Villares, &

Brigman, 2015; Webb & Brigman, 2007; Winne & Nesbit, 2010; Yeager & Walton 2011).

Considering at-risk students are often faced with unique social-emotional challenges that increase their vulnerability to be the targets or perpetrators of anti-social and bullying behaviors, Mariani et al. (2015) examined the effect participation in the SSS program had on prosocial and bullying behaviors in grade 5 students. Results indicated a statistically significant difference ($p = .000$) between the comparison group and the treatment group. Students in the treatment group who participated in the SSS program reported higher levels of engagement prosocial behaviors post-intervention. Additionally, Mariani et al. (2015) found a statistically significant difference ($p = .017$, $\eta_p^2 = .02$) in favor of students in the treatment group who reported fewer bullying behaviors after participating in the SSS program compared to students in the comparison group.

Lemberger and Clemens (2012) utilized the SSS program as an intervention to assess connectedness and self-regulation in inner-city African American elementary school students. Research findings supported the notion that students who feel connected to their school environment engage in more pro-social behaviors and demonstrate greater motivation for academic tasks (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005; MacNeil, Prater, & Busch, 2009; Stewart, 2008). Furlong, O'Brennan, and You (2011) found African American students reported feeling less connected to their school environments in comparison to their White and Asian Indian peers. Considering the influence social inequalities have on classroom experiences, researchers selected 53 African American grades 4 and 5 students within four schools who demonstrated low

performance on statewide standardized achievement tests, disruptive classroom behavior as reported by their classroom teachers, and who were receiving Free or Reduced Lunch (FRL) (Lemberger & Clemens, 2012). Results indicated that students who participated in the SSS program reported feeling more connected to the school environment post-intervention when compared to students in the control group ($p = .04$). A statistically significant difference and large ES was found in the area of metacognition as students in the treatment group self-reported higher levels of metacognitive skills post-intervention compared to students in the control group ($p = .01$, $\eta_p^2 = .19$).

In addition to improving pro-social behaviors, increased feelings of connectedness, and reported improvements in metacognition, research has shown participation in the SSS program to be effective at increasing academic achievement. Webb and Brigman (2007) recruited 1,100 students in grades 5, 6, 8, and 9 for participation in the SSS program. After conducting an analysis of covariance (ANCOVA) using pretest scores as the covariate, researchers found math achievement improved for 86% of students, reading achievement improved for 78% of students, and 70% of students engaged in the SSS program demonstrated improvements in behavior as rated by their classroom teachers.

The SSS program has also been analyzed for its influence on the academic achievement gap frequently referenced in educational literature (Hemphill et al., 2011; Vanneman, et al., 2009) between White students and their African American and Latino peers. A study conducted by Miranda et al. (2007) analyzed data of 1,123 students in grades 5, 6, 8, and 9 who participated in the SSS program. Researchers conducted a multiple analysis of covariance (MANCOVA) and significant improvements in math ($p <$

.01) and reading ($p < .05$) for the treatment groups as a whole regardless of ethnicity.

The findings support the use of the SSS program as a comprehensive and inclusive school counselor-led classroom guidance program with the potential to influence academic achievement and promote social-emotional development in diverse populations of students.

Villares et al. (2012) also analyzed the influence the SSS program has on the academic achievement of students. Researchers conducted a meta-analysis of five SSS studies conducted between 2003 and 2011 to evaluate whether students who participated in the SSS program performed better on standardized state assessments compared to students who did not participate in the program. Participants included 1,279 grades 4, 5, 6, 8, and 9 students and indicated statistically significant findings in reading ($ES = .17$) and math ($ES = .41$). Overall statistically significant findings were evident for students who participated in the SSS program ($ES = .29$) indicating that students who participated in the counselor-led intervention program performed better on standardized test than students who did not receive the intervention.

Academics continue to be the focus of intervention for at-risk students in an effort to meet standards outlined by school districts, states, and the nation. Research continues to be scarce as it relates to assessing the social-emotional and behavior ramifications the Reauthorization of ESEA may have on ethnic minority, ESE, and at-risk students. Strategies to close achievement gaps are imperative but fail to address the whole child. However, the current research falls short of providing specifics as it relates to behavioral challenges precipitated by academic skill deficits. DAEP's provide fragmented student profiles and data due to the transient nature of their student populations. Research

suggests reduced teacher expectations of ethnic minority groups contribute to academic disengagement and a decrease in social outcomes for these students (Bae, Holloway, Li, & Bempechat, 2008; Bryan, Day-Vines, Griffin, & Moore-Thomas, 2012; Decker et al., 2007). In response organizations continue to work from a bottom up approach targeting the child for intervention without taking into full account additional contextual factors beyond the child.

SSS Collaboration

Equipping classroom teachers with strategies to address the unique needs of at-risk, minority, and ESE students within the general education classroom setting through inclusionary practices promotes the academic and social-emotional welfare of all students. Professional development training provided by professional school counselors in self-efficacy, social, and cognitive skills for students in addition to the academic trainings teachers primarily attend could empower school counselors to actively serve as liaisons between general education teachers and ESE teachers, administrators, parents, and students. A unique opportunity exists for them to work with their administration to increase inclusion practices school and district wide.

The design of the SSS classroom program provides an opportunity for meaningful collaboration between school counselors and teachers. When school counselors and teachers are trained together they are better positioned to support their efforts for implementing and reinforcing the metacognitive, social, and self-management skills taught in the SSS program. Through the SSS program school counselors provide direct instruction in cognitive, social, emotional, and learning skills over the course of five structured lessons spaced one week apart for five consecutive weeks within inclusive

classroom settings (Webb, Carey, Villares, Wells, & Sayer, 2014). Teacher trainings in the SSS classroom program intervention prepares them to reinforce the skills introduced by school counselors throughout the week and weekly logs increase communication between teachers and school counselors providing data to support fidelity as well as student progress towards goals outlined within the program and, for those students referred to the MTSS team, progress towards supplemental and intensive MTSS goals (Webb et al., 2014). This study serves to add to the growing body of SSS intervention research. Although SSS research has targeted general education, at-risk and minority students, no research to date has focused on ESE students' social emotional outcomes post SSS classroom intervention.

Summary

The purpose of this study was to examine archival data to assess the effect participation in the SSS school counselor-led guidance program had on the behavioral and cognitive engagement of grade 5 ESE students serviced within the general education classroom setting. This study analyzed non-identifying archival data from the 2012-2013 school year during which time students received five 45 minute classroom lessons followed by three booster sessions designed to teach cognitive, social, self-management skills. It was designed to assess whether improvements in behavioral engagement and cognitive engagement were evidenced for ESE students in the treatment group compared to their peer ESE counterparts. This study will serve as a contribution to the limited research available as it relates to effective strategies for improving the outcomes of ESE students (Mihalas, Morse, Allsopp, & Alvarez McHatton, 2009).

Chapter three will outline in detail the procedures the researcher took to accomplish the goals set forth within this study. Students, school counselors, classroom teachers, and research facilitators will be identified along with their demographic information and specifications of each role. The study design will be presented followed by an explanation of the measures selected for use in this study along with the psychometric properties associated with each one. A description of fidelity measures put into place to best assure the interventions and assessment procedures are followed according to protocol is included. Chapter three concludes with a description of the data analysis conducted. Chapter four will present the study results. A discussion of the outcomes and implications will be presented in Chapter 5.

III. METHODS

This study was designed to examine archival data to assess the influence SSS has on the behavioral and cognitive engagement of grade 5 ESE students serviced within general education classroom settings. This chapter includes a description of the sample followed by the study design, instrumentation (Motivated Strategies for Learning Questionnaire [MSLQ] and Student Engagement in Success Skills Survey [SESS]), research questions and hypotheses followed by the procedures for collecting data, and finally the statistical analyses (MANCOVA) used in this study. For the purposes of this study, non-identifying archival data collected during a RCT of the SSS classroom program involving grade 5 ESE students from one school district during the 2012-2013 school year (Webb et al., 2011) was analyzed.

Sample Description

ESE students serviced within general education classroom settings from one school district in Southeast Florida participated in the RCT SSS grant (Webb et al., 2011). In the state of Florida, ESE eligibility may be established in one or more of the following areas: Intellectual Disability, Speech Impaired, Language Impaired, Deaf/Hard of Hearing, Visually Impaired, Emotional/Behavioral Disability, Specific Learning Disabled, Gifted, Hospital Homebound, Dual Sensory Impaired, Autism Spectrum Disorder, Developmentally Delayed, Established Condition, and Physically Impaired which encompasses Traumatic Brain Injury, Orthopedically Impaired, and Other Health Impaired. The school district selected for participation in this study was ranked the 11th

largest district in the nation and 5th largest in the State of Florida. During the 2012-2013 school year for which the archival data for this study was analyzed, approximately 177,307 students were enrolled in grades Kindergarten through 12. Of the school district's 187 schools, 107 were elementary schools. The District provided ESE services to 37,241 students and 24,921 students were identified as English Language Learner (ELL) within the district's 187 schools. A diverse student population was reported with a demographic of 36% white, 22% black, 30% Hispanic, 7% Other and a FRL rate of more than 49%.

Participants

The target study population for this study included 1,254 grade 5 ESE students' in general education/inclusion classrooms inclusive of male and female students, and represented by diverse educational, ethnic, and socioeconomic backgrounds. This study was completed in one southeast Florida school district servicing 37,241 ESE students and 24,921 students identified as ELL ages 5 to 22 in Kindergarten through grade 12 during the 2012-2013 school year. A diverse student population was reported with a demographic of 36% White, 22% Black, 30% Hispanic, 7% Other, and a Free Reduced Lunch rate of more than 49%. At the time of this study the state allocated \$6,331 per student within the district (School District of Palm Beach County, 2011). Based on state assessments 46.1% of grade 3 students were performing below grade level placing them at risk for retention potentially doubling the expense for each student whom intervention and inclusion initiatives fail to reach (K. McCormick, personal communication, April 25, 2016). During the 2012-2013 school year, 13,377 grade 5 students were enrolled in the district (W. Williams, personal communication, May 4, 2016). The school district

reported 71% of ESE students district wide were being serviced in general education classroom environments. Of this population 1,833 grade 5 students had active IEP's (L. Guzman, personal communication, May 4, 2016).

Inclusion criteria encompassed any student enrolled in a general education classroom and may include any ESE eligible student, ELL, and 504 students. Students were deemed eligible to participate in the research study under the condition that their parent or guardian provided written consent and the student gave their assent. Student participation involved completing the MSLQ and the SESSS at three separate intervals. School attendance data was collected on students for the 2012, 2013, and 2014 school years when students were enrolled in the grades 4, 5, and 6 respectively. Pretest self-report (MSLQ and SESSS) data was collected within two weeks prior to implementation of the SSS classroom intervention. Posttest self-report data was collected within two weeks immediately following completion of the intervention and posttest 2 self-report data was collected 30 weeks post-intervention.

The SSS classroom program was originally delivered by certified school counselors and reinforced by certified classroom teachers to grade 5 general education and ESE students participating inclusion classrooms. A total of 2,175 general education and ESE students participated in the study. The treatment group consisted of 430 general education students and 698 students eligible for ESE services. The control group was comprised of 491 general education students and 556 students eligible for ESE services. Students in the treatment group received the SSS intervention delivered by their school counselor and reinforced by their classroom teacher. Students in the control group received their standard comprehensive school counseling program. Additionally, eight

graduate students enrolled in masters level Counselor Education programs one local university where hired to administer the MSLQ and the SESSS to all the student participants. For the purpose of this archival data study, only non-identifying data for ESE grade 5 students was provided for analysis. Data for the RCT study was gathered after obtaining multiple universities' Institutional Review Board approvals and school district research approval (Webb et al., 2011).

Treatment group. The treatment group ($n = 698$) received the SSS classroom program delivered during the 2012-2013 school year and consisted of grade 5 students in 15 schools district wide identified as eligible for ESE services and serviced within the general education/inclusion classroom setting. Students completed the MSLQ and SESSS and school attendance data was gathered at three intervals. Students received five weekly 45 minute lessons delivered by their trained school counselor in the fall of the 2012-2013 school year. Posttest data was collected from students again utilizing the MSLQ and the SESSS as well as school attendance within two weeks of completing the SSS program intervention. Three SSS booster lessons were delivered one month apart during the spring semester. Posttest 2 self-report data was collected with students 30 weeks after implementation of the SSS program. School attendance data was reported at the end of grades 4 (pre), 5 (posttest), and 6 (posttest 2).

Control group. A control group ($n = 556$) of grade 5 ESE students serviced in the general education/inclusion classroom setting did not receive the SSS intervention during the study. Business was conducted as usual by school counselors, classroom teachers and students. Students in the control schools were eligible to receive the SSS program to be delivered by trained school counselors ($n = 15$) upon completion of the

study.

Study Design

This study was designed to examine archival data to assess the influence participating in the SSS classroom program has on the behavioral and cognitive engagement of grade 5 ESE students serviced within general education classrooms. To achieve the objectives the study followed a RCT design to analyze the difference between grade 5 ESE students who participated in the SSS classroom program (treatment groups) and their grade 5 ESE peers who did not receive the intervention (control groups). For the purposes of this study behavioral engagement was measured by the School Attendance data and the Test Anxiety and Metacognitive Activity Scales of the MSLQ and the Self-Regulation of Arousal Scale of the SESSS measured Cognitive engagement.

Dependent Variables

Two dependent variables were included in this study:

1. Student behavioral engagement as measured by school attendance data and
2. Student cognitive engagement as measured by the Test Anxiety and Metacognitive Activity Scales of the MSLQ and the Self-Regulation of Arousal Scale of the SESSS.

Independent Variable

The SSS classroom guidance program (Brigman & Webb, 2010) implemented by certified school counselors served as the independent variable.

Data Source

Educational Data Warehouse (EDW)

Educational Data Warehouse (EDW) is an electronic online database used by the participating school district to store information related to schools and student

achievement. District, school, grade level, teacher/classroom, and individual student data is stored and monitored in EDW to track the progress of students and schools towards state and national standards (EDW, 2016). Information related to student demographics, attendance, grades, student performance on standardized tests, retention, interventions, discipline, and participation in special programs (e.g., 504 eligibility, ESE eligibility, English Language Learner status) is uploaded from the districts Total Educational Resource Management System (TERMS) weekly.

The researcher was provided only archival data downloaded from EDW into Microsoft Excel spreadsheets for one school district and specific to the population of grade 5 ESE students with signed consents under investigation for this study. School attendance data was retrieved from EDW at three separate intervals. Attendance data was collected for students at the start of fiscal years (FY) 2012, 2013, and 2014 when students were enrolled in grades 4, 5, and 6 respectively. Absentee rate was not included for analysis if attendance data was not available for the participant's at each data collection period.

Instruments

The MSLQ and SESSS were selected for use at pre- and post- data collection intervals. The Test Anxiety and Metacognitive Activity Scales of the MSLQ and the Self-Regulation of Arousal Scale of the SESSS were used to measure cognitive engagement.

The Motivated Strategies for Learning Questionnaire (MSLQ)

The MSLQ was used to measure cognitive engagement reflected in general strategy use and self-regulation. The *MSLQ* is a 56-item, student self-report instrument

with five scales that measure different aspects of students' motivation, emotion, effort, and strategy use (Pintrich & DeGroot, 1990). In the development of the *MSLQ*, items were adapted from existing instruments and factor analysis was used to guide scale construction. Factor analysis suggested the appropriateness of constructing two distinct scales related to the use of common learning strategies and the use of self-regulation strategies. The *MSLQ Test Anxiety* scale was used to measure students' test anxiety. The scale has four items that reflect test anxiety (e.g., "I am so nervous during a test that I cannot remember facts that I have learned.") and has a coefficient alpha reliability of .75. Scores on the scale have been demonstrated to be related to students' performance on quizzes and tests and to overall class grades (Pintrich & DeGroot, 1990). The *Metacognitive Activity Scale* consists of the Cognitive Strategy Use Scale and the Self-Regulation Scale. The Cognitive Strategy Use Scale has a coefficient alpha reliability of .83. It consists of 13 items that reflect strategies commonly used by elementary students to enhance learning and performance (e.g., "When I do homework I try to remember what the teacher said in class so I can answer the questions correctly."). The *Self-Regulation Scale* has a coefficient alpha reliability of .74. It consists of nine items that reflect students' self-management of effort or use of meta-cognitive strategies to enhance learning (e.g., "Before I begin studying I think about the thing that I will need to do to learn."). Scores on the *Cognitive Strategy Scale* have been demonstrated to be related to grades on quizzes and examination, grades on essays and reports, and overall class grades; scores on the *Self-Regulation Scale* have been demonstrated to be related to the above measures plus student performance on classroom seat-work assignments (Pintrich & DeGroot, 1990).

The Student Engagement in Success Skills Survey (SESSS)

The Student Engagement in Success Skills Survey (SESSS) is a 33-item student self-report of cognitive engagement of SSS skills and strategies, using language specific to SSS (Carey, Webb, Brigman, & Harrington, 2010). The instrument is composed of 33 items with a simple response format that includes four options reflecting frequency of strategy use in the last two weeks: “I didn’t do this at all”; “I did this once”; “I did this two times”; and, “I did this three or more times”. The overall alpha coefficient for reliability for the 33-item scale was found to be .91. Coefficient alphas for each grade ranged between .87 (for 5th grade) and .95 (for 7th grade). All items correlated well with the total scale (ranging between .34 and .63). Scores on the total scale were distributed approximately normally with a mean of 65.83 ($SD = 15.44$). Exploratory (Carey, Brigman, Webb, Villares & Harrington, 2014), a confirmatory factor analyses (Brigman et al., 2015) and convergent and divergent study of the SESSS (Villares et al., 2014) instrument indicates that the SESSS has 3 underlying factors relating to *Self-Management of Learning*, *Support of Classmates Learning*, and *Self-Regulation of Arousal*. Villares et al. (2014) confirmed all three subscales (created based on the factor analysis results reviewed above) of the SESSS correlated highly with the MSLQ’s Metacognitive Activity and Self-Regulation subscales but did not correlate with the MSLQ Test Anxiety subscale. The authors indicated that this pattern of results suggested that the SESSS as a whole is a valid measure of metacognitive functioning but that evidence is currently lacking to suggest that SESSS subscales constructed according to the aforementioned factor analyses are meaningfully discriminable from one another.

Research Questions

1. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of behavioral engagement as measured by the school attendance data, when compared to students who do not receive the intervention?
2. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of cognitive engagement as measured by the Test Anxiety Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), when compared to students who do not receive the intervention?
3. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of cognitive engagement as measured by the Metacognitive Activity Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), when compared to students who did not receive the intervention?
4. Do ESE grade 5 students' who participate in the SSS classroom program report higher levels of cognitive engagement as measured by the Self-Regulation of Arousal Scale of the Student Engagement in School Success Skills survey (SESSS), when compared to students who did not receive the intervention?

Hypotheses

Null Hypothesis 1

HO₁: There will be no statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive the intervention.

Alternative Hypothesis 1

Alternative 1: There will be a statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive intervention.

Null Hypothesis 2

HO₂: There will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive the intervention.

Alternative Hypothesis 2

Alternative 2: There will be a statistically significant difference in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive the intervention.

Null Hypothesis 3

HO₃: There will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Metacognitive Activity Scale of the Motivated Strategies for Learning Questionnaire (MSLQ), for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive intervention.

Alternative Hypothesis 3

Alternative 3: There will be a statistically significant difference in reported levels cognitive engagement, as measured by the Metacognitive Activity Scale of the Motivated

Strategies for Learning Questionnaire, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive intervention.

Null Hypothesis 4

HO₄: There will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the Student Engagement in School Success Skills (SESSS) survey, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive intervention.

Alternative Hypothesis 4

Alternative 4: There will be a statistically significant difference in reported levels of cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the Student Engagement in School Success Skills (SESSS) survey, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive intervention.

Procedures

This study assessed archival data collected during a RCT of the SSS classroom program that was implemented during the 2012-2013 school year (Webb et al., 2014). During the 2011-2012 school year eight graduate students enrolled in a master's level Counselor Education program from one university were hired and trained as project data collectors. The research design called for a number of procedures to enhance the quality and accuracy of the data collection process and fidelity of program delivery. Data collectors and classroom teachers attended a one-day workshop that included an overview of the project, demonstration and practice of delivering the student instruments,

and an overview of on-site data collection procedures. A video detailing how teachers were to complete the study related instruments was created and made available to the teachers in the treatment and control schools to further support the completion of the study related materials. One month later, the data collectors entered their five assigned schools and obtained student assent before each of the surveys were administered. Students were instructed to place a pre-coded label with their student's generic ID at the top of their survey to track their responses throughout the project.

Data collectors then administered the student measures (MSLQ and SESSS) by reading aloud all survey items and possible response items while students followed along and selected their choices. Data was collected at three intervals - two weeks before five SSS classrooms lessons were implemented, two weeks after all SSS lessons were delivered, and six months after the program was delivered. School attendance pretest data was collected at the end of grade 4. Posttest and posttest 2 school attendance data was collected at the end of grades 5 and 6 respectively.

Prior to implementing the study, the district project coordinators gathered the student and teacher demographic information from the district databases. All participating students and teachers were then assigned a generic code (district #1, school # 1-30, classroom # 1-6) and provided with a set of pre-coded labels, which were later affixed to top of each study instrument at the time of completion. No student or teacher identifying information was collected or shared with the research team. The demographic information was then saved on a password protected and encrypted Excel spreadsheet. Finally, the district project coordinator was responsible for verifying all materials were returned and secured in a locked cabinet until they were ready to be

shipped to a partner university for data analysis. For the purposes of this study, only non-identifying ESE student quantitative archival data was shared with and utilized by the researcher.

Treatment Fidelity in the RCT

To increase fidelity of treatment, all school counselors and teachers randomly assigned to the treatment schools participated in a one-day curriculum-training workshop to learn how to implement the SSS classroom curriculum. Two one-day trainings were scheduled to accommodate the participants' schedules and were led by one of the program developers. At the training, each school counselor and teacher received the SSS classroom manual, including a CD with PowerPoints for each lesson, and a set of posters to be displayed in the classrooms. In addition, school counselors and teachers received a timeline for data collection, program implementation, and a schedule for completing electronic reporting logs. A member of the research team attended the district trainings to ensure content and training consistency.

Certified school counselors implemented the five SSS lessons spaced one week apart for five consecutive weeks. Three booster lessons were delivered once per month from January to March. School counselors in the treatment schools completed eight electronic weekly logs from October to March to document that each lesson was delivered, the number of students in attendance, the time each lesson took to delivery, shared any issues or concerns encountered while implementing the lesson, and then rating their confidence level from 1 (low) to 5 (high) on how closely they felt their delivered the lesson as designed. Teachers in the treatment schools also completed eight electronic weekly logs to document how frequently they cued and coached students to use the SSS

strategies and observed students using the SSS strategies, on a bi-weekly schedule beginning two weeks after the start of program implementation in November and ended in April.

Throughout the year of program implementation, the district project coordinators completed site visits in the treatment schools. The project coordinators documented that the posters were visible in the classrooms, observed counselors delivering at least one lesson, made arrangements for data collector visits, and provided ongoing support via email and phone calls. The coordinators also met once a week with a member of the research team to discuss project implementation and address any issues or concerns.

In order to document any other activities that occurred in the treatment and control schools, the school counselors completed an electronic survey identifying their background experience and demographics, along with a description of any school wide and program initiatives that were planned and delivered during the year of project implementation.

Data Analysis

Archival data gathered during a RCT of the SSS classroom program was used for this study. The archival ESE student data was analyzed using a Multivariate analysis of covariance (MANCOVA). The MANCOVA was used to examine whether differences occur between two independent and equally distributed groups (Gay & Airasian, 2000). The MANCOVA procedure was utilized to compare the treatment and control groups as it relates to their behavioral engagement as measured by school attendance data and their cognitive engagement as measured by the Test Anxiety and Metacognitive Activity Scales of the MSLQ and the Self-Regulation of Arousal Scale of the SESSS. Effect size

using the partial eta squared statistics were calculated using the Statistical Package for the Social Sciences (SPSS) version 23 (Richardson, 2011).

The G* Power Program (Faul, Erdfelder, Buchner, & Lang, 2009) was used to calculate an a priori power estimate. A medium effect size of .5 (Cohen, 1992) is anticipated. Prior research using the SSS program reported *N*'s ranging from 156 (León et al., 2011) to 418 (Webb et al., 2005) to 4,321 (Webb et al., 2014). With an alpha level set at .05 and a power level of .95 the program yielded a minimum sample size of *N* = 400 participants; 200 students in the treatment group and 200 students in the control group.

This chapter provided an overview of the proposed methods to be conducted for this study. A description of the sample, dependent and independent variables, research questions and hypotheses along with the procedures and data analysis. Chapter four will present the study results. A discussion of the outcomes and implications will be presented in Chapter 5.

IV. RESULTS

This chapter will describe the statistical analyses used to evaluate the research questions and hypotheses presented in this study. These results include descriptive data of the sample and procedural checks of the data for each instrument used. The findings from the multivariate analysis of covariance (MANCOVA), with a Bonferroni correction, will be presented comparing the mean differences across assessment periods (posttest and post-posttest) on each dependent variable (behavioral engagement and cognitive engagement). Finally, effect size measures for the SSS classroom program intervention are reported herein.

Descriptive Data

For the purposes of this study, non-identifying archival data collected during the 2012-2013 school year was analyzed. Prior to the main analysis, all the variables of interest were examined using the SPSS 23.0 program for accuracy of data entry, missing values, the normality of distributions, and outliers. The two dependent variables in this study included behavioral and cognitive engagement. School attendance data was used to measure behavioral engagement. Behavioral engagement data (school attendance) was gathered at the end of grade 4 (pretest), 5 (posttest 1), and grade 6 (posttest 2).

Measures of cognitive engagement included the Test Anxiety and Metacognitive Activity subscales of the Motivated Strategies for Learning Questionnaire (MSLQ) and the Self-Regulation of Arousal subscale of the Student Engagement in School Success

Skills (SESSS) survey. School Attendance data was used to measure behavioral engagement. Cognitive engagement data for this study was collected at three separate intervals. Pretest data was collected within two weeks prior to implementation of the SSS classroom intervention. Posttest 1 data was collected within two weeks immediately following completion of the intervention and Posttest 2 data was collected 30 weeks post-intervention.

Behavioral Engagement

The sample population included 1,254 grade 5 ESE students; however, if attendance data was not available for the participants' at each data collection period their scores were not included in the analysis. Therefore, 1,149 students (643 in the treatment group and 506 in the control group) were included in the school attendance analysis.

Table 1 displays the treatment and control group means, standard deviations, and change scores for school attendance data in terms of absences.

Table 1

Treatment and Control Group Means, Standard Deviations, and Change Scores for School Attendance in terms of Absences

	<u>Treatment Group (n = 643)</u>			<u>Control group (n = 506)</u>		
	T2 M (SD)	T3 M (SD)	M +/-	T2 M (SD)	T3 M (SD)	M +/-
ABS	.03 (.04)	.02 (.07)	-.01	.04 (.04)	.04 (.07)	.00

Note. n = number; M = Mean; SD = standard deviation; +/- = mean change score; T2 = Posttest 1; T3 = Posttest 2; ABS = Absences.

Cognitive Engagement

The Motivated Strategies for Learning Questionnaire (MSLQ). The MSLQ is a 56-item, student self-report instrument with five scales designed to measure different aspects of students' motivation, emotion, effort, and strategy use (Pintrich & DeGroot, 1990). The MSLQ Metacognitive Activity subscale was comprised of the Cognitive Use and Self-Regulation subscales. The MSLQ Test Anxiety subscale was also used. The sample included 1,254 grade 5 ESE students; however, if a participant did not complete the MSLQ in its entirety (all 56 items), their responses were not included in the analysis. Therefore, 947 students (429 participants in the treatment group and 518 students in the control group) were included in the MSLQ analysis. Table 2 displays the treatment and control group means, standard deviations, and change scores across the two subscales of the MSLQ (Test Anxiety and Metacognitive Activity).

Table 2

Treatment and Control Group Means, Standard Deviations, and Change Scores for the MSLQ subscales

Subscale	Treatment Group (<i>n</i> = 518)			Control Group (<i>n</i> = 429)		
	T2 <i>M</i> (<i>SD</i>)	T3 <i>M</i> (<i>SD</i>)	<i>M</i> +/-	T2 <i>M</i> (<i>SD</i>)	T3 <i>M</i> (<i>SD</i>)	<i>M</i> +/-
TA	9.20 (6.18)	8.71 (4.22)	-.49	10.82 (19.88)	9.47 (4.64)	-1.35
MA	78.91 (21.10)	74.36 (14.27)	-4.55	81.66 (56.79)	75.14 (14.37)	-6.52

Note. MSLQ = Motivated Strategies for Learning Questionnaire; *n* = number; *M* = Mean; *SD* = standard deviation; T2 = Posttest 1; T3 = Posttest 2; +/- = mean change score; TA = Test Anxiety; MA = Metacognitive Activity.

The Student Engagement in School Success Skills (SESSS). The SESSS contains 33 items designed to measure a student’s frequency of engagement in school success skills (Carey et al., 2010). The sample population included 1,254 grade 5 ESE students; however, if a participant did not complete the SESSS instrument in its entirety (all 33 items), their responses were not included in the analysis. Therefore, 928 students (518 participants in the treatment group and 410 students in the control group) were included in the SESSS analysis. Table 3 displays the treatment and control group means, standard deviations, and change scores for Self-Regulation of Arousal subscale of the SESSS instrument.

Table 3

Treatment and Control Group Means, Standard Deviations, and Change Scores for the SESSS subscales

	<u>Treatment Group (n = 518)</u>			<u>Control group (n = 410)</u>		
Subscale	T2 M (SD)	T3 M (SD)	M +/-	T2 M (SD)	T3 M (SD)	M +/-
SRA	8.18 (2.72)	7.69 (2.86)	-.49	8.01 (2.75)	8.05 (2.78)	-.47

Note. SESSS = Student Engagement in School Success Skills; n = number; M = Mean; SD = standard deviation; +/- = mean change score; T2 = Posttest 1; T3 = Posttest 2; SRA = Self-Regulation of Arousal.

Test of Hypotheses

Two dependent measures were studied. The first dependent measure was behavioral engagement as measured by school attendance data measured in terms of absences. The second dependent measure studied was cognitive engagement as measured by the Test Anxiety and Metacognitive Activity Scales of the MSLQ and the Self-Regulation of Arousal Scale of the SESSS. In the following section the researcher will

present the results from the multivariate analysis of covariance (MANCOVA) test in addition to presenting decisions on the seven null hypotheses that were determined using an alpha level of .05. A partial eta squared effect size will also be presented for each measure. The magnitude of the ES will be interpreted using Sink and Mvududu (2010) rubric, where as a small ES is .01, medium is .06, and large is .14.

Behavioral Engagement

In order to test the hypothesis that grade 5 ESE students receiving the SSS classroom intervention would have lower absentee rates than their peer counterparts who did not receive the intervention MANCOVA tests were performed. Attendance data collected at the end of their grade 4 school year was used as the covariate to control for differences in absentee rates prior to the intervention. Results of the MANCOVA revealed statistically significant differences between the treatment and control groups (Wilks' $\lambda = .992$, $F [1, 1146] = 4.464$, $p = .012$, $\eta_p^2 = .008$, a small ES).

Follow up univariate tests showed there was no statistically significant difference in absentee rate between the ESE students in the treatment and control groups at posttest 1 ($F [1, 1146] = .805$, $p = .370$, $\eta_p^2 = .001$, a negligible ES); however, there was a statistically significant difference in absentee rate between the ESE students in the treatment and control groups at posttest 2 ($F [1, 1146] = 8.586$, $p = .003$, $\eta_p^2 = .007$, a small ES). Table 4 and Table 5 present the findings of the post hoc univariate tests for absentee rate at posttest 1 and posttest 2 respectively.

Table 4

Summary Table for Univariate Analysis for Absentee Rate at Posttest 1 by Condition

Source of Variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups T2 Score	1	.001	.001	.805
Within groups T2 Score	1146	1.359	.001	
Total	1148	2.030		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F* distribution. * $p < .05$.

Table 5

Summary Table for Univariate Analysis for Absentee Rate at Posttest 2 by Condition

Source of Variance	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	1	.104	.104	8.586*
Within groups	1146	13.928	.012	
Total	1148	14.177		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F* distribution. * $p < .05$.

In reviewing the treatment and control group mean scores at posttest 2 the findings show that ESE students who received the intervention ($n = 643$, $M = .026$, $SD = .071$) had lower rates of absenteeism 30 weeks after the intervention than ESE students who did not receive the intervention ($n = 506$, $M = .046$, $SD = .146$).

The results were used to test the following hypothesis HO₁: There will be no statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive the intervention. Based on the above findings, the researcher rejects the null hypothesis because a statistically significant difference was found in absentee rate between grade 5 ESE students in the treatment and control groups.

Cognitive Engagement

Test Anxiety Subscale of the MSLQ. In order to test the hypothesis that grade 5 ESE students receiving the SSS classroom intervention would evidence less test anxiety as compared to grade 5 ESE students who did not received the SSS classroom intervention MANCOVA tests were performed. The participants' pretest score for Test Anxiety was used as the covariate to control for differences between students' perceptions of test anxiety prior to the intervention. Results from the MANCOVA revealed statistically significant difference between the treatment and control groups (Wilks' $\lambda = .990$, $F [1, 943] = 4.921$, $p = .007$, $\eta_p^2 = .01$, a small ES).

Follow up univariate tests showed there was no statistically significant difference between the ESE students in the treatment and control groups for test anxiety at posttest 1 ($F [1, 943] = 3.264$, $p = .071$, $\eta_p^2 = .003$, a small ES); however, there was a statistically significant difference between the ESE students in the treatment and control groups for test anxiety at posttest 2 ($F [1, 943] = 8.041$, $p = .005$, $\eta_p^2 = .008$, a small ES). Table 6 and Table 7 presents the findings of the post hoc univariate tests for test anxiety at posttest 1 and posttest 2 respectively.

Table 6

Summary of Univariate Analysis for Test Anxiety at Posttest 1 by Condition

Source of Variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	1	649.673	649.673	3.264
Within groups	943	187706.954	199.053	
Total	945	189255.566		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F* distribution. * *p* < .05.

Table 7

Summary of Univariate Analysis for Test Anxiety at Posttest 2 by Condition

Source of Variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	1	149.326	149.326	8.041*
Within groups	943	17511.126	18.570	
Total	945	18566.685		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F* distribution. * *p* < .05.

In reviewing the treatment and control group mean scores at posttest 2, the findings show that ESE students (*n* = 518) who received the intervention (*M* = 8.71, *SD* = 4.22) reported less test anxiety 30 weeks after the intervention than ESE students (*n* = 428) who did not receive the intervention (*M* = 9.47, *SD* = 4.64).

The results were used to test the following hypothesis HO₂: There was no statistically significant difference in reported levels of cognitive engagement, as

measured by the Test Anxiety Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive the intervention. Based on the above findings, the researcher rejects the null hypothesis because a statistically significant difference was found in test anxiety between grade 5 ESE students in the treatment and control groups.

Metacognitive Activity Scale of the MSLQ. In order to test the hypothesis that there will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Metacognitive Activity subscale of the MSLQ, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive the intervention MANCOVA tests were performed. The participants' pretest score on the Metacognitive Activity subscale of the MSLQ was used as the covariate to control for differences between students' self-reported use of cognitive strategies prior to the intervention. Results from the MANCOVA revealed no statistically significant difference between the treatment and control groups (Wilks' $\lambda = .998$, $F [1, 944] = .835$, $p = .434$, $\eta_p^2 = .002$, a negligible ES).

Table 8

Summary of Univariate Analysis for the Metacognitive Activity Scale at Posttest 1 by Condition

Source of Variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	1	1973.508	1973.508	1.168
Within groups	944	1595661.52	1690.319	
Total	946	1612679.60		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F* distribution. * *p* < .05.

Table 9

Summary of Univariate Analysis for the Metacognitive Activity Scale at Posttest 2 by Condition

Source of Variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	1	172.906	172.906	.861
Within groups	944	189549.475	200.794	
Total	946	193850.156		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F* distribution. * *p* < .05.

The results were used to test the following hypothesis HO₃: There will be no statistically significant difference in reported levels of cognitive engagement, as measured by the Metacognitive Activity subscale of the MSLQ, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive intervention. Based on the above findings, the researcher fails to reject the null

hypothesis because a statistically significant difference was not found in self-reported Metacognitive Activity between grade 5 ESE students in the treatment and control groups.

Self-Regulation of Arousal Subscale of the SESSS. MANCOVA tests were performed to determine if statistically significant differences occurred between grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive the intervention on the Self-Regulation of Arousal (SRA) subscale of the SESSS. The participants' pretest score on the Self-Regulation of Arousal Scale of the SESSS was used as the covariate to control for differences between students' reported self-management skills prior to the intervention. Results from the MANCOVA revealed statistically significant difference between the treatment and control groups (Wilks' $\lambda = .991$, $F [1, 925] = 4.199$, $p = .015$, $\eta_p^2 = .009$, a negligible ES). Follow up univariate tests showed there was no statistically significant difference between the ESE students in the treatment and control groups for self-regulation of arousal at posttest 1 ($F [1, 925] = 1.432$, $p = .232$, $\eta_p^2 = .002$, a negligible ES) or posttest 2 ($F [1, 925] = 3.464$, $p = .063$, ($\eta_p^2 = .004$, a negligible ES). Table 10 and Table 11 presents the findings of the post hoc univariate tests for self-regulation of arousal at posttest 1 and posttest 2 respectively.

Table 10

Summary of Univariate Analysis for Self-Regulation of Arousal at Posttest 1 by Condition

Source of Variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	1	9.120	9.120	1.432
Within groups	925	5891.599	6.369	
Total	927	6939.224		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F*

distribution. * $p < .05$.

Table 11

Summary of Univariate Analysis for Self-Regulation of Arousal at Posttest 2 by Condition

Source of Variance	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Between groups	1	25.048	25.048	3.464
Within groups	925	6689.174	7.232	
Total	927	7439.478		

Note. *df* = degrees of freedom. *SS* = Sum of Squares. *MS* = Mean square. *F* = *F*

distribution. * $p < .05$.

In reviewing the treatment and control group mean scores at posttest 2, the findings show that ESE students ($n = 518$) who received the intervention ($M = 8.18$, $SD = 2.72$) rated themselves higher on the Self-Regulation of Arousal Scale 2 weeks after the intervention than ESE students ($n = 410$) who did not receive the intervention ($M = 8.01$, $SD = 2.75$).

The results were used to test the following hypothesis HO₄: There was no statistically significant difference in reported levels of cognitive engagement, as

measured by the Self-Regulation of Arousal subscale of the SESSS, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive the intervention. Based on the above findings, the researcher rejects the null hypothesis because a statistically significant difference was found in self-regulation of arousal between grade 5 ESE students in the treatment and control groups.

Summary of Hypotheses

A series of MANCOVA analysis was used to determine statistically significant differences between grade 5 ESE students who received the SSS classroom intervention (Brigman & Webb, 2010) and the grade 5 ESE students who did not receive the intervention. The alpha level was set at .05. Decisions about the four null and alternative hypotheses are provided.

Null Hypothesis 1

HO₁: There was no statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who receive the SSS classroom program and their peer counterparts who did not receive the intervention.

There was a statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive the intervention; therefore the null hypothesis was rejected.

Alternative Hypothesis 1

Alternative 1: There was a statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students

who received the SSS classroom program and their peer counterparts who did not receive intervention.

There was a statistically significant difference in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention; therefore the alternative hypothesis was not rejected.

Null Hypothesis 2

HO₂: There was no statistically significant difference in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive the intervention.

There was a statistically significant difference in reported levels of cognitive engagement as measured by the Test Anxiety Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive the intervention; therefore the null hypothesis was rejected.

Alternative Hypothesis 2

Alternative 2: There was a statistically significant difference in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive the intervention.

There was a statistically significant difference in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the MSLQ, for grade 5 ESE

students who received the SSS classroom program and their peer counterparts who did not receive the intervention; therefore the alternative hypothesis was not rejected.

Null Hypothesis 3

HO₃: There was no statistically significant difference in reported levels of cognitive engagement, as measured by the Metacognitive Activity Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention.

There was no statistically significant difference in reported levels of cognitive engagement, as measured by the Metacognitive Activity Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention; therefore the null hypothesis was not rejected.

Alternative Hypothesis 3

Alternative 3: There was a statistically significant difference in reported levels cognitive engagement, as measured by the Metacognitive Activity Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention.

There was no statistically significant difference in reported levels cognitive engagement, as measured by the Metacognitive Activity Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention; therefore the alternative hypothesis was rejected.

Null Hypothesis 4

HO₄: There was no statistically significant difference in reported levels of cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the

SESSS, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention.

There was statistically significant difference in reported levels of cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the SESSS, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention; therefore the null hypothesis was rejected.

Alternative Hypothesis 4

Alternative 4: There was a statistically significant difference in reported levels cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the SESSS, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention.

There was a statistically significant difference in reported levels cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the SESSS, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention; therefore the alternative hypothesis was not rejected.

Summary

This chapter included a summary of the statistical analyses used to examine the research questions and above referenced hypotheses. Descriptive statistics for the instruments, summaries of pertinent findings resulting from the MANCOVA tests, and calculated effect size estimates for each of the measures were provided. Chapter 5 will discuss the implications of these findings. Limitations of the study will be discussed and recommendations for practice and future research pertinent to this topic will be presented.

V. DISCUSSION

The following chapter will address the implications of the results presented in Chapter 4. A discussion of the findings specific to each hypothesis will be discussed. Literature explaining and/or supporting these results will be presented followed by an explanation of the methodological implications of this study. This chapter will conclude with practical implications for future research as they apply to counseling interventions for ESE students and limitations to assist in guiding future counseling research and practice.

Discussion of the Findings

The purpose of this study was to examine archival data gathered to determine the effect participating in the SSS program had on the behavioral and cognitive engagement of grade 5 ESE students' serviced within general education classroom settings when compared to other grade 5 ESE students who did not receive the intervention. Considering limitations in research specific to social emotional outcomes for ESE students (McMillan & Jarvis, 2013; NAMI, 2013), this study contributes to school counseling research meeting the following objectives (a) identifying the influence the SSS program has on ESE students' behavioral engagement, emotional adjustment, cognition, and self-regulatory skills, (b) provides support for school district initiatives in the extension of MTSS intervention services for students before and after ESE eligibilities are established, and (c) supports proactive inclusionary practices for ESE and

general education students through the implementation of classroom based guidance lessons delivered by school counselors.

Hypotheses

Hypothesis 1. Hypothesis 1 stated statistically significant differences would be found in reported levels of behavioral engagement, as measured by school attendance data, for grade 5 ESE students who received the SSS classroom program and their peer counterparts who did not receive intervention. This hypothesis was supported by the results as a statistically significant difference in school attendance data was found between students in the treatment group and those in the control group as measured by school attendance data. Students in the treatment group were found to have lower rate of absenteeism at the end of year 3 as opposed to the ESE students in the control group. A small effect ($\eta_p^2 = .008$) was found for the SSS intervention impact on school attendance data highlighting the influence this intervention has on the behavioral engagement of ESE students. The connection between school attendance and academic achievement has been well documented (Gottfried, 2010, 2011; Morrissey et al., 2014; Webb-Landman, 2012). Historically, ESE students in middle and high-school have been the target of intervention when chronic absenteeism and truancy become added risk factors for poor academic achievement and increased drop-out rates (Rea et al., 2002; Spencer, 2009). Early intervention endeavors targeting ESE students in the elementary years stand to improve long-term outcomes for at-risk students (Tremblay, 2013).

Hypothesis 2. Hypothesis 2 stated that statistically significant differences would be found in reported levels of cognitive engagement, as measured by the Test Anxiety Scale of the MSLQ, for grade 5 ESE students who received the SSS classroom program

and their peer counterparts who did not receive the intervention. This hypothesis was also supported as statistically significant differences were noted in reported levels of cognitive engagement at year 3 as measured by the Test Anxiety Scale of the MSLQ, between students in the treatment and control groups. A small effect size ($\eta_p^2 = .007$) was confirmed pre to posttest for this outcome indicating ESE students in the treatment group evidenced a decrease in reported levels of test anxiety pre to posttest compared to ESE students in the comparison group following participation in the SSS classroom program. Literature suggests ESE students experience higher levels of test anxiety and at higher rates than their non-disabled peers and recommend direct instruction and intervention in learning strategies, self-efficacy and self-regulation (Swanson & Howell, 1996; Whitaker et al., 2007; Passolunghi, 2011). Participation in the SSS program has been shown to positively influence social-emotional and academic outcomes for students performing at or even below grade level making it a viable intervention option for use with ESE students (Campbell & Brigman, 2005; Brigman et al., 2007; Miranda et al., 2007).

Hypothesis 3. Hypothesis 3 stated a statistically significant difference would be observed between students in the treatment and comparison groups in relation to their reported levels of cognitive engagement as measured by the Metacognitive Activity Scale of the MSLQ. Results indicate that no statistically significant differences were noted between students in the treatment and control groups. Considering the study participants were ESE students it is not clear what influence their intellectual and cognitive processing skills, evaluated to determine eligibility, had on their ability to process and retain key strategies associated with metacognitive functioning. Students identified as learning disabled have difficulty generalizing learned strategies and present with greater

deficits in their metacognitive abilities compared to their non-disabled peers; hence, requiring more repetitions and modifications necessary for observable change (Foley-Nicpon, Assouline, & Fosenburg, 2015; Händel, Lockl, Heydrich, Weinert, & Artelt, 2014; Johnson, Humphrey, Mellard, Woods, & Swanson, 2010). This study did not collect data on specific student eligibilities but takes these factors into consideration when analyzing these results.

Hypothesis 4. Hypothesis 4 stated a statistically significant difference would be observed in reported levels of cognitive engagement, as measured by the Self-Regulation of Arousal Scale of the SESSS, for grade 5 ESE students who received the SSS classroom intervention program and their peer counterparts who did not receive the intervention. This finding was confirmed as statistically significant differences were noted from pre- to posttest between students in the treatment and control groups. Students in the treatment group evidenced an increase in mean change scores on this measure after participating in the SSS classroom program. A small effect size was found ($\eta_p^2 = .015$) pre- to posttest for this outcome. Although an overall statistically significant difference was found between the treatment and control groups, no statistically significant differences were found at posttest 1 or posttest 2 as evident within the univariate analyses of variance between and within groups. While mean scores for the treatment group declined, mean scores for the control group increased from posttest 1 to posttest 2. Results of the univariate analysis indicate a possible interaction effect between the dependent variables which effect the relationship between the independent variable and results of the Self-Regulation of Arousal scale. Further analysis looking at correlations between all three dependent variables may be warranted.

Overall, with regards to self-regulation, the SSS program has been shown to increase self-regulatory behaviors in students (Lemberger & Clemens, 2012; Ohrt, Webster, De La Garza, 2015; Villares et al., 2011). Literature supports direct instruction in self-regulation decreases behavior problems and improves social skills, academic achievement, and self-efficacy in ESE students (Pelco & Reed-Victor, 2007; Wyman et al., 2010). Targeting self-management skills specific to attention, motivation, anxiety, and emotional self-regulation, this study falls in alignment with the SSS program goals (Lemberger & Clemens, 2012; Villares et al., 2011).

Connection Between Results and Counseling Literature

The dearth in literature as it relates to successful practices specific to ESE students poses a challenge for school based educators attempting to identify effective research-based intervention and remediation practices. According to the National Alliance on Mental Illness (2013) 13% of children ages 8 to 15 experience severe mental health disorders and ESE students with mental health disorders represent the highest dropout rates of all disability groups. These statistics encompass students within the mid to late elementary years providing strong rationale for the delivery of the SSS program to grade 5 ESE students in this study. Interventions designed to support children after ESE eligibilities are established can be useful in the promotion of school engagement, cognition, and self-regulatory behaviors as evidenced by statistically significant differences between groups on most measures utilized for the purposes of this study.

Students with disabilities including but not limited to Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD), Emotionally/Behaviorally Disabled (EBD), and Specific Learning Disabled (SLD) have

particular difficulty achieving school success due to deficits in executive functioning and self-regulation (Westwood, 2011). Lemberger and Clemens (2012), who found the SSS program directly influences these skills, posited that direct instruction specific to executive functioning and self-regulation are important and necessary in the learning environment to increase academic achievement in ESE students. This study targeted the archival data related to ESE students and supports this notion as positive outcomes were documented for students across both domains.

When considering the objectives outlined earlier in this chapter, literature on inclusion supports the social-emotional growth of students with disabilities. ESE students who are educated in strong inclusionary classroom settings have been found to be healthier, express more positive attitudes towards school and learning, show quicker progress, and have more positive peer and adult interactions compared to ESE students who are instructed in resource room or self-contained classroom settings (Specht, 2013; Timmons & Wagner, 2008). With MTSS teams collaborating on interventions for individual students, the role of school counselors becomes integral as they are equipped to deliver whole group direct instruction within the inclusionary classroom environment. Students in the treatment and control groups who participated in this study received the SSS program delivered to them within their assigned, inclusive general education classroom settings bringing this study in direct alignment with the ASCA National Model (2012) and current MTSS initiatives (Barton & Stepanek, 2009; Utley & Obiakor, 2015).

School-based prevention and intervention efforts designed to increase students' capacity to engage in pro-social behaviors can positively influence their mental health development. Mental health promotion in schools targeting ESE students within the

context of the “whole school” approach can be beneficial as documented in a variety of studies (Atkins, Hoagwood, Jutash, & Seidman, 2010; Mariani et al., 2015; McMillan & Jarvis, 2013). This study delivered the SSS program across an entire grade level within various schools influencing a movement to influence change school-wide from a top-down approach. In doing so it served as a means of potential intervention and prevention for ESE and general education students alike.

Methodological Implications

The methodological implications of this study provide support for future school counseling research. This study addressed several factors specific to behavioral and cognitive outcomes for ESE students. It sought to assess students’ behavioral engagement as measured by school attendance data and improvements in cognitive engagement in terms of text anxiety, metacognition, and self-regulation by implementing a research-based school counselor-led intervention. The archival data used in this study was originally collected through a four year RCT study funded by the U.S. Department of Education, Institute of Education Sciences (Webb et al., 2014). By using archival data that was originally collected data at three separate intervals, pre-intervention, post-intervention and post-post-intervention the researcher was able to establish baseline levels, assess any changes in the students’ behavioral and cognitive engagement post-intervention, and ascertain whether changes were maintained 6 months post-intervention. School attendance data was gathered on students for the 2012, 2013, and 2014 school years when students were enrolled in the grades 4, 5, and 6 respectively. The MANCOVA was used to examine if differences existed between the two independent and equally distributed groups of students (Gay & Airasian, 2000).

Implications for Future Research

Based on the findings of this archival data study, the SSS classroom guidance program serves as a practical research-based intervention positively influencing outcomes for ESE students. Data indicates improvements in behavioral and cognitive engagement for students who received the SSS program delivered by school counselors. Statistically significant differences were noted between the treatment and control groups. An increase in school attendance was observed for students in the treatment group indicating improved behavioral engagement. Students in the treatment group reported less test anxiety and self-reported increased ability to self-regulate their arousal state compared to students in the control group indicating improvements in their cognitive engagement post-intervention.

These results are timely in light of the Reauthorization of ESEA and school district inclusion initiatives. An increased emphasis has been placed on finding research based interventions to improve the academic and social-emotional outcomes of students through the MTSS process (Cheney et al., 2008; Hughes & Dexter, 2008; U.S. Department of Education, 2010; Yell, 2012). This process has historically been designed to intervene on behalf of students receiving general education services and ends once ESE eligibilities are established. As a result much of the research conducted on intervention practices has revolved around general education students. The Individuals with Disabilities Education Improvement Act (2004) extended instruction and intervention services beyond self-contained and resource classrooms where ESE students were often primarily serviced promoting their access to modified general education classroom instruction. This leaves considerable room for further research into

remediation practices targeting ESE students within general education classroom settings who are at increased risk for academic failure, behavioral challenges, and mental health concerns (McMillan & Jarvis, 2013; Swearer, Wang, Maag, Siebecker, & Frerichs, 2012).

Training delivered within school counseling programs specifically places school counselors in a unique position to offer critical self-management and learning strategies to students within the general education classroom setting. School counseling services have been shown to influence positive academic and social-emotional outcomes for students; however, literature is scarce as to the role school counselors' play in the delivery of instruction in social competencies to ESE students and research primarily consists of perceptions and recommendations for providing additional support (Coskun, 2010; Lambie & Milsom, 2010; Mayes et al., 2014; Owens, Thomas, & Strong, 2011). Collaboration between, administration, school counselors, general education teachers, and ESE personnel is encouraged to improve outcomes for ESE students through the delivery of interventions which target not only academic but social-emotional competencies. As school districts fade out the segregation of ESE students into resource room and self-contained classroom settings, MTSS and ESE teams should plan for interventions through differentiated instruction within general education inclusion classroom settings. Inclusionary practices will increase ESE student engagement within the general education curriculum allowing them access to school guidance interventions delivered keeping the whole-school culture in mind (Mariani et al., 2015). As schools are reorganized in response to inclusion initiatives, school counselors can assist in bridging the gap between general education and ESE practices. Participation in ESE eligibility

and IEP planning meetings will provide insight for school counselors into the global needs ESE students present and gives them an opportunity to assist in designing more well-rounded goals for the students they serve (Mayes et al., 2014). By partnering with general education and ESE teachers in the delivery of intervention programs such as SSS while supporting teachers in their areas of expertise school counselors can be viewed as leaders in creating overall supportive classroom environments for academic as well as social emotional growth for ESE and general education students alike. Although SSS is a structured school counseling intervention program (Brigman & Webb, 2010), future researchers may consider developing a teacher delivery model of the SSS program. Additionally practical accommodations to the program could be considered as the target population becomes more diverse in relation to student's academic, social-emotional, and mental health needs in response to inclusionary practices.

Limitations

This study is limited in that participating schools were selected from only one school district in the state of Florida. Additionally, this study targeted ESE students serviced within general education classroom settings. As a result these findings cannot be generalized to other schools or target populations. The schools and students selected to participate in this study likely are not representative of all public schools or students throughout the district or state posing a threat to its external validity.

Certifications of school counselors and general education teachers are also limitations of this study. Although demographic data was collected on adult participants within the study, information related to whether the participating certified school counselors and general education teachers had ESE endorsements was not included in the

data collection. It was also not documented as to whether any of the participating school counselors had prior teaching experience which may have been influential in their delivery of the SSS classroom program to diverse learners.

This study did not identify specific ESE eligibilities for students within the treatment and control groups. ESE eligibilities vary including but not limited to Autism Spectrum Disorder (ASD), Emotionally/Behaviorally Disabled (EBD), Intellectually Disabled (InD), Other Health Impaired (OHI), and Specific Learning Disabled (SLD). Eligibility for ESE services is generally based on standardized assessments of students' cognitive functioning, academic, and various cognitive processing skills. That being said it is difficult to assess the influence results of psycho-educational evaluations may have had on students' ability to retain, manipulate, and utilize information delivered within the SSS classroom intervention. This limitation is considerable taking into account no significant differences were found on the metacognitive scale utilized within this study.

Although ESE students were receiving instruction within the general education classroom setting, it was not delineated whether inclusion classrooms received support from certified general education teachers or para-professionals assigned to provide direct support to ESE students within the general education setting. Additionally, ESE students are entitled to instruction as outlined in their Individualized Education Plans (IEP's) as are students with 504 accommodation plans. Extra supports outlined in these plans were not tracked but may have influenced the students' progress towards the goals outlined within this study.

Response bias is considered another limitation to this study as self-report measures were utilized to assess cognitive engagement. Students were required to self-

report on past behaviors and it is not possible to determine whether they under or over represented themselves when responding to items surveyed. It is also challenging to assess their level of understanding and students may have intentionally or unintentionally responded in patterns to appease their parents, teachers, school counselors, or examiners.

For the purposes of this research students were only instructed using the SSS classroom guidance program. The SSS program has additional components including a small group and parent program. These added levels of support could be aligned with MTSS practices which increase to supplemental and intensive instruction based on student need and may have had a greater influence on outcomes for ESE students who participated in this study.

Finally, school attendance at the elementary school level is highly influenced by parental factors. While statistically significant findings were documented, in hindsight this may not necessarily be the best reflection of behavioral engagement for students. School attendance data provides quantitative information related to a students' presence for instruction but does not take into account teacher or student perceptions of internalized and externalized observable behavioral changes pre- or post-intervention.

Summary and Conclusion

Results of this research supported the prediction that grade 5 ESE students who participated in the SSS school counselor-led classroom intervention (Brigman & Webb, 2010) would evidence statistically significant differences in behavioral and cognitive engagement compared to their peer counterparts who did not receive the intervention. Students within the treatment group were found to have higher rates of school attendance, reported less test anxiety, and more frequently reported engaging in self-regulatory

behaviors linked to academic success. With regards to metacognition, differences between students in the treatment and comparison groups were not considered to be statistically significant. Additional research into the influence cognition and cognitive processing skills of ESE students has on their self-perception as it relates to their metacognitive functioning is needed.

Early intervention is key to setting students on a positive academic trajectory. A considerable gap continues to exist between ESE students and their general education peers (Hanushek et al., 2012; Kosiewicz, 2008). MTSS practices have been designed to provide research-based interventions that target skill deficits and the Individuals with Disabilities Education Improvement Act (2004) extends these supports beyond ESE eligibility determination. School counseling interventions such as the SSS program support students' academic learning by introducing and reinforcing social skills, self-management skills, metacognitive skills, and self-efficacy which speaks to its usefulness for ESE students often plagued with a history or academic failure and low self-concepts (Lemberger & Clemens, 2012; Villares et al., 2011). This research suggests that research-based school counseling programs delivered within small or whole groups using inclusionary practices may be beneficial in supporting the academic achievement and social-emotional adjustment of ESE students.

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