

STUDENT SUCCESS SKILLS: THE EFFECTS OF A SCHOOL COUNSELOR LED
INTERVENTION ON STUDENT ACHIEVEMENT AND SOCIAL-EMOTIONAL
OUTCOMES

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ABSTRACT

The cost of academic failure is unacceptable and represents an immense hurdle in the education system today. Given the known negative outcomes associated with academic failure, new methods for prevention and intervention are needed (CASEL, 2015; Ohrt, Webster, & De La Garza, 2014; Weissberg et al., 2015). The *Student Success Skills* (SSS) curriculum presents as an intervention to address academic, behavioral, and social-emotional factors that mediate success in the education system (Brigman & Webb, 2010). The purpose of the present study was to examine the effects of the SSS curriculum among 9–12th grade students placed in MTSS study halls in the upper Midwest. To assess the efficacy of SSS, the variables of self-efficacy, social support, grades, and attendance were analyzed as markers of student success. Results showed increases in grades, while attendance, social support, and self-efficacy results were mixed. Limitations, future directions, and implications for school counselors are discussed.

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DEDICATION

To Brett: Thank you for showing me to love more deeply,
live more passionately, and never stop dreaming. I love you.

To Mom: I will always want to be like you—my first role model and truest friend.

To Dad: Thank you for your example in faith, kindness, gentleness, and humor.

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CHAPTER I. INTRODUCTION

The cost of academic failure is unacceptable and represents an immense hurdle in the education system today. Given the known negative outcomes associated with academic failure, new methods for prevention and intervention are needed (CASEL, 2015; Ohrt, Webster, & De La Garza, 2014; Weissberg et al., 2015). Further, such methods must be investigated to determine their effects on student success outcomes.

In this chapter, a brief review of the problem of academic failure is described, along with personal and societal consequences for students who are unsuccessful in school to underscore the scope of the problem. The importance of self-efficacy, support, attendance, and grades is briefly discussed, based on research on the broad concept of social-emotional learning. This is followed by a brief review of the Student Success Skills curriculum, a potential solution to the problem of academic failure. Following this brief overview of key concepts in the present study, the statement of the problem, purpose of the study, research questions, significance of the study, and definitions of terms are provided. Upon reading Chapter 1, the reader should have a clear understanding of the relevance and need for the present study as well as an understanding of the aims of the study outlined by the research questions.

At-Risk Students

Broadly speaking, academic achievement and academic failure are among the most pressing concerns in education today. Academic failure, particularly dropout, is tied to many negative outcomes including higher incidence of alcohol and drug abuse, teen pregnancy, increased likelihood of incarceration, violence, physical inactivity, significantly lower lifetime earnings, and a shortened life expectancy (Centers for Disease Control and Prevention, 2011; Messacar & Oreopoulos, 2013; Ohrt, Webster, & De La Garza, 2014; Stillwell & Sable, 2013).

Given these severe consequences, it is evident that interventions are needed to address academic failure. In response to this, policies like No Child Left Behind have developed; however, such policies, though well-intentioned, have left a lasting mark of overemphasis on academic achievement and neglected social and emotional factors that influence student success.

Therefore, it is important to consider research that indicates that interventions targeting only academic outcomes are missing a key component to overall student success (Brigman, Webb, & Campbell, 2007; Durlak et al., 2015). Research supports the use of social-emotional learning interventions that combine both academic and social-emotional domains, leading to holistic improvements in students' performance in school (Brigman, Webb, & Campbell, 2007; Durlak et al., 2015; Lemberger & Clemens, 2012).

Social and Emotional Learning

Social and emotional learning (SEL) refers to the concept of fostering social and emotional competencies with aims of increasing students' interpersonal skills, intrapersonal skills, and cognitive skills—a holistic, integrated philosophy with the goal of promoting overall student success and well-being (Weissberg et al., 2015). SEL is taught using explicit instruction of social skills and emotional skills including maintaining positive interpersonal relationships and learning to self-manage strong emotions. Proponents of SEL recommend school-wide SEL strategies in order to create a sense of consistency for students and to embed SEL concepts in the culture of the entire school system. Importantly, the Collaborative for Academic, Social, and Emotional Learning (CASEL) emphasizes the importance of utilizing evidence-based practices and programming to address student needs—both social-emotional and academic (CASEL, 2015; Weissberg et al., 2015).

An overwhelming amount of research supports the use of SEL interventions in school settings due to the efficacy of such interventions in mediating student success outcomes like empathy, persistence, reduced risk-taking behaviors, increased connection to others and the school, attendance, self-efficacy, and academic achievement (Durlak et al., 2011; Farrington et al., 2012; Weissberg et al., 2015; Zins et al., 2004). This evidence demonstrates that SEL interventions are an efficacious solution to issues related to decreased attendance rates, poor academic performance, disconnection from others and the school, and low self-efficacy among students. Of particular interest to the current study are the variables of attendance, grades, self-efficacy, and connectedness/social support, and how they are impacted using an SEL based intervention. Given the overwhelmingly positive results of previous studies investigating the efficacy of SEL interventions with certain populations, there is a need for such interventions to be widely implemented in schools; further, the outcomes of implementing such interventions must be quantified.

Student Success Skills

The *Student Success Skills* curriculum (SSS) is an evidence-based, SEL curriculum that is designed to instruct students in the areas of academic, social, and self-management skills (Brigman & Webb, 2010; Brigman, Webb, & Campbell, 2007). SSS is considered a holistic intervention that addresses a variety of components known to impact overall student success. SSS is grounded in humanistic theory, Adler's individual psychology, and has been found to be in alignment with a theory of social and cognitive change (Lemberger et al., 2012; Villares et al., 2011; Webb, Lemberger, & Brigman, 2008). In terms of format, the SSS program is available in several versions for students based on developmental level; however, the classroom format is designed for students in grades 4-12 and will be the chosen curriculum for the current study. The

classroom version includes approximately 5 weeks of lessons related to the areas of (a) goal setting, progress monitoring, and success sharing, (b) creating a caring, supportive, and encouraging classroom community, (c) memory skills building, (d) performing under pressure, and (e) healthy optimism. Following the 5-week period of lessons, a booster session is provided approximately one month later.

SSS is widely supported in the literature, having been shown to significantly increase student achievement as measured by standardized test scores among predominantly elementary and middle school students (Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Webb et al., 2005). Further, SSS has been shown to significantly increase students' perceptions of social support, a known mediator of student engagement and success (Demaray et al., 2005; Elliott, Lemberger et al., 2015; Lemberger & Clemens, 2012; Malecki, & Demaray, 2001; Kiefer et al., 2015; Levitt et al., 1994; Rosenfeld et al., 2000; Wentzel et al., 1998). Beyond this, SSS has produced significant increases in positive behavioral ratings of students from their teachers (Brigman & Campbell, 2003; Brigman, Webb, & Cambell, 2007; Webb et al., 2005). Taken together, these studies have shown that SSS impacts student success by significantly increasing achievement measured by standardized test scores, perceived social support, and behavior measured by teacher ratings—capturing the holistic nature of SSS.

Altogether, SSS is a holistic, evidence-based, SEL curriculum that is particularly suitable for students who may be deemed “at-risk.” It has been well-supported in the literature as being efficacious in mediating student success outcomes like behavior, perceived social support, and achievement measured by standardized tests; however, certain deficiencies have emerged. These gaps are further explored in the following section.

Statement of the Problem

Despite being well-supported, there are notable gaps that exist in the literature concerning the curriculum, Student Success Skills (SSS). Although it has been well-established in the literature as effective in yielding increases in academic achievement, this has not been adequately demonstrated among high school students (Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Lemberger & Clemens, 2012; Lemberger et al., 2015). Additionally, the current body of research focuses heavily on standardized test scores as the sole measure of academic achievement (Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Lemberger & Clemens, 2012; Lemberger et al., 2015), and tends to ignore impacts of social-emotional learning on additional markers of academic achievement. Therefore, research that measures the effect of SSS on achievement markers like grades and attendance, as well as social-emotional variables, is needed.

In terms of school-based interventions like SSS and the work of school counselors, there are a number of deficiencies in the literature, as well. Firstly, there is a paucity of research conducted by school counselors, though the importance of data as a means to measure effectiveness of interventions is heavily emphasized in the American School Counseling Association (ASCA) National Model (2012). Whereas counselors may be using data and aiming to make data-driven decisions, very limited amounts of completed empirical research is conducted or published by school counselors. Further, school counselors are being called upon to demonstrate their worth and efficacy in school settings through the collection and analysis of data. Some argue that the school counseling profession is at risk if school counselors do not demonstrate, quantitatively, the impact they have on student success outcomes (Brigman & Campbell, 2003; Ohrt et al., 2014; Villares et al., 2011; Webb, Brigman, & Campbell, 2005).

Therefore, it is imperative moving forward that school counselors seize opportunities to quantify their contributions to student achievement both academically and behaviorally.

Given the aforementioned deficiencies in education and the school counseling profession, the current study may add value to the literature by providing evidence of a school counselor-led intervention that aims to increase both academic and social-emotional outcomes. In addition, the study results may bolster the work of school counselors by providing quantitative evidence of the impact of a social-emotional intervention that increases both academic and social-emotional constructs.

Purpose of the Study

The purpose of the present study is to examine the effects of the Student Success Skills (SSS) curriculum among 9th – 12th grade students in a school in the upper Midwest with a D or F in a core course and/or attendance rates 80 % or less and/or who have been recommended for the curriculum by a teacher or counselor. In order to assess the efficacy of SSS, the variables of self-efficacy, social support, grades, and attendance will be analyzed as holistic markers of student success. To date, several studies have analyzed the effects of the SSS curriculum; however, few have measured the effects on grades and attendance, and even fewer have analyzed the overall effects of SSS among high school students (Brigman, Webb, & Campbell, 2007; Brigman & Campbell, 2003; Lemberger & Clemens, 2012; Lemberger et al., 2015).

Research Questions

Given the purpose of the study, four main research questions regarding the SSS curriculum will provide the study's focus:

Research Question 1 (R1): What are effects of SSS on self-reported self-efficacy among students identified as having a D or F in a core course and/or attendance rates less

than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Research Question 2 (R2): What are the effects of SSS on self-reported social support among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Research Question 3 (R3): What are the effects of SSS on attendance rates among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Research Question 4 (R4): What are the effects of SSS on grades among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Significance of the Study

The present study is needed for three reasons. Firstly, evidence-based SEL curriculums like SSS need to be implemented by school counselors to address concerns with “at-risk” students. By having such an intervention implemented by school counselors, the benefits are twofold. Counselors will be given opportunities to demonstrate their efficacy in school settings, and further evidence of the efficacy of interventions like SSS among “at-risk” populations will be demonstrated. Secondly, the present study is needed in order to address additional gaps in the literature—namely, the efficacy of SSS among high school students using alternative measures of academic achievement like grades and attendance. By addressing these gaps, school

counselors may be further encouraged to consider means of mediating grades and other achievement outcomes. Third, given the call for school counselors to quantitatively demonstrate their impact in school settings, the present study provides an opportunity for school counselors to be directly tied to student success outcomes and to implement findings into their work in school settings.

Definition of Terms

The following provides definitions for terminology used throughout the present study:

Attendance: Attendance refers to the average number of days absent. Days of truancy, excused, and unexcused absences will be used to calculate this percentage.

Grades: Grades will reflect the percentage grades of students prior to the study (quarter 4 of the previous school year) and at a 4-week follow-up (quarter 1). To obtain baseline grades for incoming freshmen, final grades during 8th grade will be utilized. For 10th – 12th grade students, final grades of 9th – 11th grade will be utilized.

Interventions: The term, interventions, within the confines of the present study refers to the components outlined by ASCA in reference to the Delivery domain concerning what services are appropriate for school counselors to provide. These include (a) direct student services, (b) school counseling core curriculum, (c) individual student planning, (d) responsive services, and (e) indirect student services (ASCA National Model, 2012). However, typically this term will be in reference to services provided under the umbrella of direct student services, often involving the use of curriculum.

School counselor: A professional licensed or credentialed by the Department of Education as a school counselor who works in a school setting between the grades of Kindergarten and 12th grade.

Self-efficacy: Self-efficacy will be operationally defined by the work of Bandura (1986, 1993) as a person’s judgment about his/her ability to perform a task and confidence in the ability to learn. Self-efficacy will be measured using the Self-Efficacy Questionnaire for Children (SEQ-C).

Social Support: Social support will be defined by the Child and Adolescent Social Support Scale (CASSS)—namely, perceived support from parents, teachers, classmates, close friends, and people in school.

Student Success Skills (SSS): An evidence-based social-emotional curriculum for students grades 4 – 12. SSS can refer to either the classroom manual developed by Brigman and Webb (2010) or the group counseling manual developed by Brigman, Campbell, and Webb (2010). The term SSS will generally be used when referring to the classroom manual unless otherwise specified.

Overview of Chapters

In Chapter 1, a concise overview of the present study was provided, outlining the problems related to academic failure and gaps in the literature surrounding school-counselor led interventions. Student Success Skills (SSS) is an evidence-based, SEL intervention to address these problems. The purpose of the study was provided—to examine the effects of the SSS curriculum among 9th – 12th grade students who have been placed in MTSS academic study halls based on having a D or F in a core course and/or attendance rates of 80% or less and/or recommendation for placement from a teacher or counselor. Finally, research questions were articulated as well as the operational definitions for terminology to be used throughout the study.

In Chapter 2, a thorough review of the literature is provided, further expanding upon the problems addressed in Chapter 1. Further, information regarding previous research related to

SSS as well as surrounding topics will be provided. The variables of interest, self-efficacy, social support, grades, and attendance, will also be explored in relation to student outcomes and the SSS curriculum.

In Chapter 3, an outline for the methodology of the study will be provided. First, research questions and hypotheses will be presented followed by a description of the participants and procedures. Next, the SSS intervention will be described in further detail followed by a description of the instrumentation to be utilized to measure the variables of interest. An outline of the data analysis will be discussed as well as the delimitations of the study.

CHAPTER II. LITERATURE REVIEW

Introduction and Summary of Literature Review

In chapter one, the rationale for a study of the effects of the Student Success Skills curriculum on the variables of grades, attendance, and self-efficacy and social support was presented. In the following literature review, I will summarize the relevant research surrounding the Student Success Skills (SSS) curriculum and related topics, including the current academic climate, role of school counselors, social-emotional learning interventions, multi-tiered system of supports, the theoretical underpinnings of SSS, as well as the gaps in the current literature surrounding SSS. With the goal of providing a foundation for understanding the importance and relevance of SSS within the field of school counseling, the following exploration will address the educational problems that may be ameliorated by an intervention such as SSS. In particular, the following review will be tailored toward education professionals, especially school counselors.

Academic Climate

Before discussing the Student Success Skills curriculum, it is necessary to provide a discussion of the relevant issues surrounding the education system in relation to student outcomes. Through this discussion, the reader will be provided relevant, essential background information in order to come to increased understanding of the need for school counselor-led interventions. In the following section, the current academic climate will be explored in relation to student outcomes, particularly emphasizing the current achievement obsession and high stakes testing along with the role of the school counselor.

Academic achievement and rates of academic failure continue to be among the most pressing issues facing the education system today. Current data suggests that 22% of students in the United States fail to earn a high school diploma within four years (Stillwell & Sable, 2013).

Further, such academic failure is linked to alcohol and drug abuse, premature pregnancy, crime, violence, physical inactivity, and other high-risk behaviors (Messacar & Oreopoulos, 2013; as cited by Ohrt, Webster, & De La Garza, 2014; Centers for Disease Control and Prevention, 2011). Additionally, academic failure is highly linked with dropout rates with known negative effects on various lifestyle outcomes including lower income, higher probability of imprisonment, and a shortened life expectancy (as cited by Ohrt, Webster, & De La Garza, 2014). One study revealed that 74% of adults who dropped out of school would choose to stay in school if they had the opportunity to make that choice again (Messacar & Oreopoulos, 2013). Given these striking findings, it is clear that academic achievement is a robust predictor of outcomes that drastically affect students' future lifestyles. In this section, additional factors of the academic climate will be explored including the achievement obsession along with high-stakes testing and the role of the school counselor.

The Achievement Obsession and High-Stakes Testing

When considering student outcome data related to academic achievement, it is also important to consider the role of policy and whether or not it creates a school climate that fosters student success. Influenced by the No Child Left Behind Act of 2001 (NCLB), high-stakes testing continues to place immense pressure on educators, administrators, and students to perform at a satisfactory level to meet adequate yearly progress, as funding is directly tied to student outcomes on standardized exams. Further, teacher performance is often evaluated on the basis of how well their students perform on these high-stakes exams. Even in its current state of reform, NCLB has created a shift in mindsets in the education system and forced educators and administrators to focus exclusively on academic achievement (Lemberger & Clemens, 2012; Webb, Brigman, & Campbell, 2005). This intense focus on achievement often results in

additional academic instruction in areas such as math, reading, and science. Though these academic interventions are important for students who may not be on par in terms of achievement, a large portion of these students may lack other essential skills such as social and self-management skills that bolster their ability to improve academically. When students only receive academic remediation, they often fall even further behind (Lemberger & Clemens, 2012). Therefore, whereas outcomes like academic achievement are of the utmost importance in education, the means by which academic achievement is attained can have significant impact on the welfare of students, teachers, and education system as a whole.

In particular, research has shown that social-emotional interventions positively impact academic outcomes much in the same way that academic interventions produce academic achievement outcomes (Brigman, Webb, & Campbell, 2007; Durlak et al, 2015; Lemberger et al., 2012). Although educators may be tempted to only incorporate academic interventions to address achievement concerns, the research on this topic has demonstrated the importance of holistic interventions that also address social-emotional domains as important to academic achievement (Brigman & Campbell, 2003; Brigman, Campbell, & Webb, 2010; Durlak et al., 2015; Lemberger & Clemens, 2012; Lemberger et al., 2015). By improving non-academic skills like self-regulation and relationship building, substantial improvements in academic markers are seen.

Role of the School Counselor

Given the current academic climate, the need for school counselors, who have the responsibility to identify and intervene with at-risk students, cannot be understated (Ohrt et al., 2014). In order to understand the necessity of school counselors, one must first have a firm grasp of the role of school counselors and how they can be valuable assets in such a climate. According

the American School Counselor Association (ASCA), school counselors are certified and/or licensed educators with at least a master's degree in school counseling. Through their education, school counselors are equipped to address students' academic, career, and social-emotional needs through the implementation of comprehensive school counseling programs. These programs require careful implementation and continual evaluation in order to maintain quality, effective services that ultimately promote student success. Additionally, school counseling programs are developed with consideration to the criteria outlined by the ASCA National Model, which includes guidelines for the foundation, delivery, management, and accountability of such programs (ASCA, Role Statement). Essentially, school counselors are expected to be diligent and intentional in the delivery of services to students, emphasizing balanced programming that addresses the academic, career, and social-emotional needs of students. Therefore, school counselors are expected to use data to monitor the efficacy of programming and identify students who may be at-risk academically and social-emotionally, viewing these two domains as interdependent.

As far as specific duties, ASCA provides an outline for appropriate as well as inappropriate activities for school counselors to perform in schools. Among the appropriate duties for school counselors are providing individual and group counseling to students, collaborating with teachers to present guidance lessons, monitoring students' achievement as they work toward graduation, analyzing and presenting student data, maintaining student records, participating in individual education plan meetings, and providing counseling to targeted students with disciplinary, achievement, or other social-emotional concerns (ASCA, Appropriate and Inappropriate Activities for School Counselors). These duties align with the overall expectation that school counselors address the academic, career, and social-emotional needs of

students. Poised to intervene, school counselors are able to provide the kind of holistic interventions through programming that can help to ameliorate behavioral and academic concerns that lead to academic failure (Lemberger et al., 2015). Further, school counselors are responsible for identifying students who may be at risk of such academic failure in order to intervene before it is too late (Ohrt, Webster, & De La Garza, 2014).

Given a description of the expectations of school counselors and the current climate of increasing pressure for academic achievement, it is clear that school counselors are fit to intervene. Bearing in mind what is at stake when academic failure occurs, the work of school counselors is essential, particularly in addressing the social-emotional needs of students. However, school counselors face a present dilemma in that they must be able to properly quantify the contributions they bring to schools, as the profession may be at risk of elimination (Brigman & Campbell, 2003; Ohrt et al., 2014; Villares et al., 2011; Webb, Brigman, & Campbell, 2005). Due to a paucity of research demonstrating the causal relationship between the work of school counselors and student outcomes, it is becoming increasingly imperative for school counselors to quantify student success outcomes using sound progress monitoring and data collection procedures (Brigman & Campbell, 2003; Webb et al., 2005). Particularly, research is needed that analyzes the efficacy of school counseling interventions in relation to academic and behavioral outcomes. Therefore, the work of school counselors must be to advocate for themselves and their profession by developing intentional school counseling programs in alignment with the expectations of ASCA, and, importantly, monitoring student progress and outcomes with data.

This section provided an overview of the current academic climate, including the achievement obsession and high stakes testing as well as the role of school counselors. In sum,

the current academic climate heavily emphasizes achievement in an effort to prevent academic failure, which is a known correlate to many negative life outcomes. However, in this effort to emphasize achievement, students' social and emotional needs are often neglected. Given the role of the school counselor, such professionals are poised to address the challenges associated with the current academic climate through interventions that incorporate social-emotional learning. In efforts for school counselors and other educators to meet all students' social-emotional as well as academic needs, school-wide, tiered approaches may provide a means to do so. The following section will review the multi-tiered supports system, emphasizing the need to target students who may be at risk of "falling through the cracks."

Falling through the Cracks: The Need for MTSS

The following section includes a description of MTSS, or multi-tiered supports system, and the need for such multi-tiered interventions to address needs of students who are considered at-risk and have traditionally "fallen through the cracks." Although recent literature points to the need for MTSS interventions, a gap exists between the evidence-based interventions in the literature and the schools that would benefit most from such interventions (Higgins & Rinaldi, 2011; Utley & Obiakor, 2015). Additionally, this section includes an overview of social-emotional learning followed by a discussion of the variables of interest in the current study: self-efficacy and social support as well as grades and attendance, as these variables have been shown to be impacted by social-emotional learning interventions all under the umbrella of MTSS. However, before addressing the definition and components of MTSS, and key study variables, it is important expand on what is meant by "at-risk" students related to the current study, and how many of these students fall through the cracks.

At-Risk Students

Whereas there is debate around the term “at-risk” in terms of how it is to be properly defined, most researchers and educational professionals agree that students considered “at-risk” are often thought of as at risk of academic failure based on certain risk factors (Catterrall, 1998; Slavin, Karweit, & Madden, 1989). These risk factors include achievement, grade retention, behavioral or disciplinary problems, low socio-economic status, and low attendance (Bowers, 2010; Dockery, 2012; Slavin, Karweit, & Madden, 1989). In the early years of schooling, socio-economic status is the strongest predictor of later dropout; however, overall performance, defined by grades and attendance, in later years becomes a more reliable predictor in upper grade school —providing evidence that a risk factor like low socio-economic status can be buffered over time by variables like attendance and grades (Slavin, Karweit, & Madden, 1989). Strikingly, cumulative grade point average (GPA) at the high school level is highly predictive of staying in school; in fact, 27 % of students with low grades drop out of school (Gleason & Dynarski, 2002 as cited by Bowers, 2010). This demonstrates how impactful grades and attendance can be in the trajectory of a student’s academic outcomes.

It is important to note that this typical definition of at risk is intended to reflect students whose intelligence is within the average range but who are failing to meet various markers of academic and behavioral achievement (Slavin, Karweit, & Madden, 1989). There are certainly students who fall under the umbrella of the special education system whose aptitude is a barrier for student success in terms of academic achievement, specifically graduation. However, for purposes of this study, at-risk students are defined as a subset of students whose aptitude is not the sole determinant of success or failure in school; rather, behavioral and social-emotional barriers are preventing them from reaching their potential. For example, a student in this subset

may experience lower achievement due to lower attendance rates, poor self-management skills, and low self-efficacy. All of these interrelated factors translate to lower academic achievement, which is predictive of academic failure. This subset of at-risk students is often considered the “gray area” of students who may not receive services beyond the blanket instruction provided to all students (Brigman & Campbell, 2003). These “grey area” students typically teeter on the lines of academic failure but often do not qualify for special education services.

Schools have various methods and criteria for what constitutes a student who is at-risk. However, in the body of research related to interventions looking to improve academic, social, and self-management skills among this population, at-risk criteria often consists of low to mid-range achievement on standardized exams (25th to 50th percentile), referrals from teachers or counselors on the basis of observed behavioral or academic difficulties, scores on standardized assessments revealing at-risk indicators, academic criteria such as failing one or more core courses, and attendance rates below a certain threshold (Brigman & Campbell, 2003; Davis et al., 2014; Ohrt, Webster, & De La Garza, 2014; Webb, Brigman, & Campbell, 2005). Ultimately, at-risk students are typically identified on the basis of academic and behavioral concerns.

As mentioned, students in this “gray area” are often overlooked in educational settings, as they may not be considered the highest need students. Further, these students may simply be labeled as “lazy,” “unmotivated,” and “ill-behaved.” However, given changes in the education system related to No Child Left Behind, new methodologies are being called forth to address this issue to ensure that all students are receiving the kinds of services and supports that they need to succeed—not simply students with the most prominent educational barriers, such as students with evident special education needs.

MTSS Overview

In response to the growing priority to address students of all needs, particularly students who are considered at-risk, multi-tiered system of support (MTSS) have emerged. The term MTSS has been used almost interchangeably with the term Response to Intervention (RTI) or Positive Behavior Intervention and Supports (PBIS); however, it is important to distinguish between these terms as there are subtle, yet important differences. RTI is an evidence-based, tiered approach to the practice of addressing student needs within a school by providing instruction and interventions matched to student needs, while monitoring student progress using sound data practices (Freeman, Miller, & Newcomer, 2015; Higgins Averill & Rinaldi, 2011). Notably, RTI involves data-driven service delivery, continuous progress monitoring, and embodies an overall problem-solving methodology. One of the many objectives of RTI is to target students at various tiers in order to provide them with the most effective interventions and instructional practices based on their needs—essentially preventing any student from falling between the cracks in the education system. Typically, RTI refers mostly to academic outcomes rather than behavioral outcomes.

Within the framework of RTI, the first tier (labeled 1 in figure 1) represents the instruction and intervention that is provided to all students school-wide. The second tier targets a subset of the students whose needs are not being met in the first tier provided to all students. Finally, the third tier of RTI involves more intensive services for students whose needs fail to be met in the second tier. This percentage of students should be quite small in comparison to the students in the other two tiers. Importantly, RTI involves screening processes along the way to provide data as to the progress of students. Students who may be considered at-risk can often be

identified in such screening procedures (Freeman, Miller, & Newcomer, 2015; Higgins, Averill, & Rinaldi, 2011).

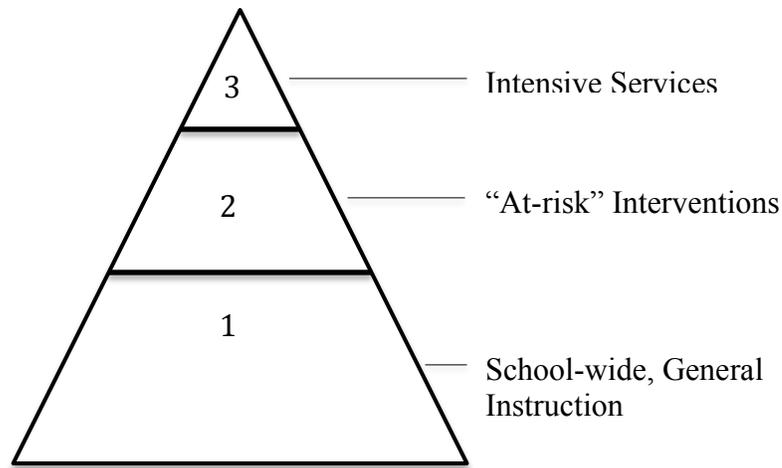


Figure 1. Response to Intervention (RTI) Model

Figure 1 illustrates the RTI model with the tiers representing the ideal proportion of students receiving various levels of services on the basis of academic needs. This model can also be used to understand MTSS if including social-emotional services as well as services for students achieving beyond the expectations of blanketed course instruction.

PBIS, also a multi-tiered, data-based approach, involves predominantly behavioral interventions, such as social skills instruction among other social-emotional learning categories. The first tier of PBIS involves school-wide instruction on appropriate behaviors, often by teachers and other professionals who work directly with students. The second tier involves the integration of increasingly intentional behavior plans from students whose needs are not met in the first tier. Examples of tier two interventions for PBIS include using functional behavior assessments, providing peer tutoring, and implementing group or classroom curriculum that addresses social-emotional concerns like self-management, social skills, study skills, and overall engagement in school. Typically, tier two interventions involve a targeted, small group of

students. Finally, tier three PBIS interventions involve intensive, individualized behavior support plans for students who do not adequately respond to the first tiers of PBIS (Freeman et al., 2016; Higgins et al., 2011).

Whereas the overall framework of RTI and PBIS is quite similar in terms of the tiers and the screening procedures utilized to target students, the distinction lies in the specificity of the interventions in terms of academic or behavioral goals. However, researchers and educators have come to suggest integrating these two approaches into MTSS as a whole (Higgins et al, 2011). In doing so, the benefits of RTI for general academic outcomes and the benefits of PBIS for behavioral outcomes are combined to form a more holistic, all-encompassing framework that meets students' academic and behavioral needs—MTSS. Further, MTSS often focuses on meeting the needs of all students, not simply students who may be considered “behind” their peers. For example, MTSS programming also incorporates methods for meeting the needs of students who excel in school and need to be provided opportunities to meet their potential. One example of this could be offering advanced placement (AP) or dual-credit courses for college-bound students who excel (Freeman et al., 2016; Freeman, Miller, & Newcomer, 2015). In sum, MTSS encompasses the concepts of RTI and PBIS in a more holistic, systematic framework designed to propel all students toward their potential. Notably, the education system seems to be making a shift from solely RTI or PBIS approaches to MTSS.

Given the present issues related to at-risk students who fail to be properly identified and therefore do not receive the kinds of support necessary for their success in school, MTSS is a plausible, evidence-based solution that has been successful nationwide (Freeman et al., 2016; Freeman, Miller, & Newcomer, 2015). Further, research has consistently shown that MTSS interventions, when implemented properly, lead to favorable outcomes in behavior, attendance,

and academic performance (Freeman et al., 2016). Due to increasing evidence that students excel when their academic, social, and emotional needs are met, MTSS research provides the evidence necessary to implement tiered interventions to ensure that the needs of all students are being met—not exclusively the students at the polar ends of achievement.

MTSS and School Counselors

School counselors are considered stakeholders in MTSS implementation and monitoring, as their role involves the support of the academic, social, and emotional needs of students (ASCA, 2014). Often, school counselors are looked to as MTSS leaders in their schools and expected to align their curriculum and overall counseling program with the objectives of MTSS, particularly in regards to student academic and behavioral goals. School counselors are heavily involved in the screening procedures and intervention planning for students who are considered at-risk for not attaining academic or behavioral goals, often students who fall into tier two criteria.

Specifically, school counselors provide school counseling core curriculum to all students on the topics of academic, career, and social-emotional development; analyze academic and behavioral data to identify at-risk students; research evidence-based curriculum and strategies for school staff to implement; evaluate student progress following interventions; revise interventions when necessary; provide referrals for students with needs unable to be met within the school setting; and advocate for accessible education for all students (ASCA, 2014). Although school counselors play a vital role in the implementation and monitoring of MTSS, they cannot be considered the sole stakeholder in MTSS in the school systems due to the need for extensive involvement and collaboration from other parties, including teachers, administrators, support

staff, and parents. Often, MTSS teams are formed by stakeholders from each of these roles in order to ensure buy in from all involved personnel.

Social and Emotional Learning

After considering the overall concept of MTSS and the needs of such systems in education, it is also important to consider the role of social and emotional learning (SEL), as it is a significant component of MTSS that can be used to target many of the students who are at-risk. SEL developed, in part, as a response to the many modern, complex circumstances that educators and students face today—from increasing access to media, dynamic family structures, increasingly multi-cultural and multi-lingual schools, to increases in risk-taking behaviors like substance use, unprotected sex, and bullying (Weissberg et al., 2015; Durlak et al., 2015). Often, schools implement prevention initiatives to address a number of these issues; however, research has shown that these are often temporary, “Band-Aid” fixes that remain disconnected from the other realms of the student experience—for example, a substance abuse seminar may not be tied to the whole student and integrated into the school’s mission (Weissberg et al., 2015). Students may attend such a seminar, think about it briefly, then go back to an environment, say math class, where it is not discussed again. Although this is only a snapshot, it is clear that students’ mental health and overall social-emotional needs are of the utmost importance and that interventions striving to address these needs must be integrated with care, coordination, monitoring, and thought as to how they will impact the whole student.

During its inception, SEL was borne from the concept of enhancing students’ “social-emotional competence, academic performance, health, and citizenship” and to additionally “reduce and prevent behavioral issues, health, and mental health” concerns (Weissberg et al., 2015; Durlak et al., 2015). Importantly, SEL was developed with the goal of addressing social,

emotional, and academic competency in the school setting through evidence-based programming—a holistic, integrated philosophy with the goal of promoting overall student success and well-being. SEL involves explicit instruction to teach social and emotional skills that are modeled and practiced to promote positive behaviors. Ideally, SEL should occur school-wide in order to create an environment in which students experience consistency of the SEL culture of support, cooperation, participation, and safety. Further, developers of SEL recommend the inclusion of families, community members, and partnerships to build a sense of unity and culture around the core principles of SEL (Durlak et al., 2015).

SEL consists of five competency domains that address intrapersonal skills, interpersonal skills, and cognitive skills (Weissberg et al., 2015; Durlak et al., 2015). The first area is self-awareness, involving an understanding of the self in terms of emotions, goals, and values. Additionally, this domain includes having an awareness of one's strengths and weaknesses as well as developing a healthy sense of self-efficacy. Much like the cognitive-behavioral therapy triangle model, this domain emphasizes the interconnection of thoughts, feelings, and behaviors. The second domain is self-management skills, or using self-regulatory behaviors, including controlling urges, managing stress, and possessing grit in order to attain goals. The third competence domain is social awareness, which involves awareness of and empathizing with persons of different perspectives or backgrounds as well as awareness of socially acceptable and unacceptable behaviors. The fourth domain is relationship skills. This domain involves educating students about healthy relationships, communication, compromising, and conflict management. Lastly, the fifth domain is responsible decision-making, which includes awareness of ethical standards, safety, behavioral norms, and ultimately making sound personal decisions that incorporate these among other important considerations. Ultimately, each of these domains

covers an essential aspect of SEL and has been shown to be effective in mediating positive student outcomes (Weissberg et al., 2015).

There is a vast body of research that supports the efficacy of SEL interventions in mediating a variety of student outcomes, including academic achievement as measured by test scores and grades, increased self-efficacy, attendance, persistence, empathy, connection to others and the school, more positive relationships, and reduced risk-taking behaviors (Durlak et al., 2011; Farrington et al., 2012; Weissberg et al., 2015; Zins et al., 2004). Such evidence demonstrates the necessity of SEL interventions in schools. Students who receive instruction on concepts like self-management skills and social skills demonstrate marked improvements in not only these areas but also academic outcomes. Using the MTSS framework to administer various tiers, SEL interventions may provide solutions to both behavioral and academic challenges faced by students. Coupled with the MTSS framework, specific SEL interventions that are paired with the tiered system may provide a more targeted intervention for students with various levels of needs.

SEL is a means of improving not only behavioral concerns but also academic achievement. Because of the expansive literature that has come to support SEL interventions, it is essential that educators, counselors and policymakers consider the importance of implementing SEL interventions as a means of addressing academic and behavioral concerns in the education system. When the total child is considered in interventions rather than only a portion, such as academic achievement, improvements are observed in multiple domains (Association for Supervision and Curriculum Development, 2016; Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Durlak et al., 2015). Namely, one area of student performance can be affected by a tangential area. For example, if a student who struggles

academically is taught and begins to use self-management skills, social awareness, self-awareness, relationship skills, and responsible decision-making, she will likely begin to improve academically. Academic achievement involves more than cognitive skills and general aptitude. Educators, administrators, and policymakers must acknowledge that in order to improve academically, the social-emotional needs of students must be met. This framework can be likened to Maslow's Hierarchy of Needs; the student's basic social-emotional needs must be met in order to attain a higher category in the pyramid if likening academic achievement to his category of self-actualization.

In the sections below, factors that promote healthy social-emotional learning will be discussed: self-efficacy, connectedness/social support, attendance, and grades. These variables are important because of their connection to both academic and personal success and lay a foundation for social-emotional learning.

Self-Efficacy. As evidenced in the above description of SEL, social-emotional components of student success cannot be ignored. One such component integrated into SEL interventions shown to have a profound impact on overall student success is self-efficacy. Self-efficacy, or a person's judgment about his/her ability to perform a task and confidence in the ability to learn, has been consistently linked with student success outcomes, particularly academic achievement (Bandura, 1993; Davis et al., 2014; Diseth, 2011; Sadi & Uyar, 2013; Sungur & Gurgoren, 2009). Essentially, students with higher self-efficacy are more likely to be confident in their abilities and, when faced with challenging problems, search for solutions, are more persistent in problem-solving, and demonstrate intrinsic interest in the problem (Sungur & Gungoren, 2009).

Some researchers hypothesize that factors related to higher self-efficacy are ultimately influenced by two concepts related to a student's self-efficacy—whether or not she believes she can complete the task and the reason why she is completing the task, illuminating the relevance of motivation when discussing self-efficacy. Students with a clear understanding of how their performance on a task is relevant are more likely to work with motivation. Similarly, students with high self-efficacy often have high levels of motivation, which is in turn influenced by their understanding of the relevancy of a task (Sungur & Gungoren, 2009).

Further, students with high self-efficacy have a tendency to possess a kind of grit that bolsters their ability to perform well academically. In particular, students with high self-efficacy are more likely to attribute failure to lower levels of effort rather than to lower ability or competency. On the other hand, students with lower self-efficacy are more likely to attribute failure to lower ability (Sungur & Gorgoren, 2009). Therefore, high self-efficacy appears to be an important predictor of increased academic achievement, and interventions should integrate practices to increase levels of self-efficacy as a means to increase student success. Importantly, self-efficacy is a malleable characteristic that has been shown to be impacted by SEL interventions that incorporate social skills, self-management skills, and cognitive components like learning effective test-taking strategies. As stated in the Student Success Skills curriculum section (below), students should be instructed, “Don’t doubt your ability. Doubt your strategy.”

Social Support. When holistically considering the factors that affect social-emotional learning as well as student outcomes in general, it is important to also consider the role of social support. A multitude of research has demonstrated the strong relationship between social support systems and student outcomes among adolescents, particularly achievement outcomes and additional behavioral constructs (Demaray et al., 2005; Kiefer et al., 2015; Levitt et al., 1994;

Rosenfeld et al., 2000; Wentzel et al., 1998). For example, Rosenfeld et al. (2000) found that positive school outcomes, including grades, were promoted when middle school and high school students received social support from parents, teachers, and peers. Further, findings indicated that the students who perceived high levels of social support from parents, teachers, and peers had better attendance, studied more frequently and for longer periods, reported higher school satisfaction and engagement, reported higher self-efficacy, engaged in fewer problem behaviors, and earned higher grades (Rosenfeld et al., 2000). These results demonstrate the immense influence of perceived social support on a multitude of markers for student success—grades, attendance, engagement, study habits, and self-management skills.

A critical question one may ask is do the effects of social support last over time. Although the aforementioned study by Rosenfeld did not examine results longitudinally, some researchers have found evidence for the longitudinal effects of social support. Dubow et al. (1991) found that a group of school-age (third to fifth grade) children's reports of social support from parents, peers, and teachers were predictive of their grade point averages two years following the onset of the study. Further, increases in social support and problem-solving skills of these students were significantly related to improvements in behavioral and academic adjustment. This demonstrates the lasting effects of social support on not only academic but also behavioral outcomes.

Additionally, beyond primary and secondary school, Cutrona et al. (1994) demonstrated that social support, particularly parental social support, significantly predicted college grade point averages while controlling for family conflict, family achievement orientation, and academic aptitude as measured by ACT scores. Notably, both social support from parents and ACT scores were predictive of college grade point averages. This demonstrates that parental

support, even when students do not have direct daily contact and are college-aged, bolsters achievement outcomes as measured by grade point average. The authors' main hypothesis was based on the work of Bandura (1982), who suggested that parental support provides reassurance of worth that contributes to students' perceived competence and abilities, translating to increased self-efficacy which in turn facilitates goal-directed behavior.

As demonstrated in the abovementioned studies, researchers have examined the categories of social support that have the most influence on students' achievement, self-efficacy, and pro-social behavior in schools. These categories include parental support, peer support (both classmates and friends), and teacher support. Although there are mild fluctuations in the literature as to the most potent source of support depending on age and additional factors, both peer and parental perceived social support consistently account for the largest portion of the variance in student outcomes like grade point average (Cutrona et al., 1994; Rosenfeld et al., 2000; Wentzel, 1998). However, findings indicate that as students progress into adolescence, social support from peers becomes increasingly valued, and accounts for a notable portion of the variance in student outcomes (Ahmed et al., 2010). Together, these findings demonstrate the potency of social support in mediating both achievement and various positive behaviors among students, including but not limited to school engagement, time spent studying, and attendance.

Dropout: Attendance and Grades. Students in the United States who graduate from high school experience a vast array of improved life outcomes compared with peers who drop out of school (Bowers, 2010). Among these improved life outcomes are increased lifetime earnings, decreased likelihood of imprisonment, and overall increased life expectancy (Ohrt, Webster, & De La Garza, 2014). Given these findings, it is clear that graduation from high school must be considered a priority. Further, educators, counselors, administrators, and

policymakers must be cognizant of the predictors of high school dropout in order to advocate for and implement proactive programming to address such predictors. Importantly, SEL must be considered as a mediator of student success outcomes such as grades and attendance, as they are known correlates of student achievement (Allensworth & Easton, 2005; Bowers, 2010; McCallumore & Sparapani, 2010). Again, students whose social-emotional needs are being met are more likely to attain success in school (Durlak et al., 2011; Farrington et al., 2012; Weissberg et al., 2015; Zins et al., 2004). Two important measures of success in school are grades and attendance.

Grades. Among the variables that reliably predict student success are grades (Bowers, 2010). Allensworth and Easton (2005) found that having grades that reflected failing one or more courses in 9th grade was predictive of a student failing to graduate high school. This demonstrates both the importance of attaining passing grades and also the importance of 9th grade in achieving high school graduation. The first year of high school is often considered the most crucial and yet the most difficult for students. Students frequently experience transitional issues from 8th grade to high school and are expected, for the first time, to pass courses aimed at earning credit toward graduation (McCallumore & Sparapani, 2010). Further, 9th graders typically have the lowest grade point averages, highest number of missed classes, highest number of failing grades, and highest number of behavioral referrals than 10th, 11th, or 12th grade students (McCallumore & Sparapani, 2010; Fritzer & Herst, 1996). Given these findings, the importance of grades, particularly of 9th graders, must be emphasized.

Additional findings have indicated that teacher-assigned grades are predictive of student dropout rates. In fact, approximately 27 % of students with low cumulative grade point average (GPA) drop out of school (Bowers, 2010). Beyond this, failing one or more courses, particularly

in math or English, is predictive of school dropout. One particularly striking longitudinal study conducted by Eckstein and Wolpin (1999) analyzing the traits of 8-12th grade students who drop out of high school found that students could be subdivided into four different categories based on GPA and graduation rates. They found a category of students in the low grades category of D+ who dropped out mostly before ninth grade, indicating the severity of low GPA in predicting graduation rates.

More recently, Bowers (2010) conducted a longitudinal study to analyze the phenomenon of high school dropout and found that grades 8 and 11 are the most critical in terms of risk of dropping out—with 8th grade being the year before the high school transition and 11th grade being the grade at which students can legally drop out of school. This closely mirrors the work of MacCullumore and Sparapani (2011) in that the transition from 8th to 9th grade is seen as critical for high school graduation. Further, Bowers (2010) found that teacher assigned grades measured by non-cumulative GPA were a significant and dramatic predictor of student dropout.

Taken together, these studies emphasize the magnitude of influence grades have in determining student success outcomes like high school graduation. Although grades are not the only predictor, serious consideration must be given to the importance of improving grades. Given that grades are such a strong predictor of academic achievement and that high school graduation is tied with many positive lifetime outcomes, educators, administrators, policymakers, and school counselors must consider interventions that can effectively moderate grades among students, particularly students in the transitional period of 9th grade.

Attendance. Aside from grades, attendance is an additional student variable that has a profound impact on student success. Bowers (2010) listed attendance among the top four factors that predict student dropout alongside grades, retention, and family socio-economic status. Put

simply, students who do not attend school regularly are at a higher risk of dropping out. Additionally, chronic absenteeism negatively affects grades and overall levels of school engagement. Given that school engagement is strongly linked with academic success, efforts must be made to create a greater sense of connection within the school to help facilitate an environment where attendance is valued (Messacar & Oreopoulos, 2013; Lemberger et al., 2015). Some researchers argue that at the root of issues with dropout is a lack of school engagement, or lack of social support from teachers, parents, and peers (Messacar & Oreopoulos, 2013). Others argue that the lack of social-emotional skills is a major underlying cause of dropout (Davis et al., 2014). Perhaps if these components, disengagement and lack of social-emotional skills, can be targeted at an earlier stage in a student's education future absenteeism would decrease and markers of student success would increase.

Together, these findings indicate the strength of the relationship between grades, attendance, and overall academic achievement. Ultimately, students who are able to obtain satisfactory grades and attend school on a regular basis are more likely to graduate (Bowers, 2010; McCallumore & Sparapani, 2010; Messacar & Oreopoulos, 2013). However, the evidence clearly suggests that variables including attendance, grades, social support, and self-efficacy are interrelated and simultaneously impact student success outcomes. Therefore, educators, counselors, and administrators looking to improve dropout rates must consider interventions that address the underlying issues of attendance, grades, self-efficacy, and social support, which in turn can be influenced by MTSS programming such as evidence-based SEL curricula.

Overall, this section of the literature review explored social-emotional learning (SEL) and provided evidence that students attain higher levels of success in school when their social-emotional needs are addressed in the school environment (Durlak et al., 2011; Durlak et al.,

2015; Farrington et al., 2012; Ohrt, Webster, & De La Garza, 2014; Weissberg et al., 2015; Zins et al., 2004). Research has consistently shown that academic interventions are incomplete in propelling students toward greater overall achievement (Durlak et al., 2011; Durlak et al., 2015; Farrington et al., 2012; Weissberg et al., 2015; Zins et al., 2004). Therefore, providing students with both academic and social-emotional interventions that align with the MTSS framework presents as a worthwhile solution to the problems related to low student achievement and ultimately dropout. Importantly, the variables of self-efficacy, social support, grades, and attendance can be utilized as markers of both academic and social-emotional success. In the following section, I will explore the *Student Success Skills* (SSS) curriculum, an evidence-based, SEL curriculum in alignment with the framework of MTSS, as a promising solution.

Student Success Skills Curriculum

The following section will review the literature of the Student Success Skills Curriculum, providing support that it is an efficacious, MTSS-aligned tier two, SEL evidence-based curriculum. Importantly, the SSS curriculum ties together the important components needed in order to increase student achievement both academically and social-emotionally. Given its connection with the previously discussed variables of self-efficacy, social support, grades, and attendance, SSS provides a foundation for the following study. Firstly, an overview of the curriculum will be provided, followed by a discussion of the various formats of the curriculum. Next, the theoretical framework of the curriculum will be explored. Finally, previous findings will be investigated, paying particular attention to the variables of interest for the present study—self-efficacy, social support, and achievement. The section will conclude with a discussion of the gaps in the literature, particularly related to the outcome variables of grades and attendance.

The Student Success Skills (SSS) is an evidence-based SEL curriculum that is designed to teach academic, social, and self-management skills within school settings (Brigman, Webb, & Campbell, 2007). The SSS model includes manuals for a variety of developmental levels from Kindergarten through 12th graders and is available in a variety of formats, including classroom and group manuals. Further, the SSS model includes a manual for parents, as the authors cited parental involvement as essential to promoting student success. Since its original version, SSS has become more and more comprehensive and better suited to a variety of developmental levels and cultural backgrounds. Additionally, the SSS curriculum has been used nationwide by approximately 9,000 school counselors and teachers, resulting in over one million students having been exposed to the SSS model. Put simply, SSS has been cited among the most efficacious interventions to address students' psychosocial development, social/emotional development, and academic readiness, proving to be a valuable asset for school counselors (ASCA, 2011).

In the developmental stages of the SSS curriculum, Brigman, Campbell, and Webb (2010) first referred to the Masten and Coatsworth (1998) review of 25 years of research regarding critical factors related to child and adolescent development of social and academic competency. Additionally, Brigman et al. (2010) summarized a host of additional studies that provided the foundation for the development of SSS. Many such reviews are longitudinal in nature and rigorous in design. Hattie, Biggs, and Purdie (1996) reviewed over 10 years of research analyzing the relationship between learning skills interventions and learning. Further, Marzano et al. (2001) reviewed 10 years of classroom instruction research and strategies to mediate student achievement. More recently, Zins et al. (2004) provided a review of 10 years of research investigating the role of social and emotional learning in student academic achievement.

Finally, Wang et al. (1994) reviewed 50 years of research on the factors that aid student learning. Taken together, the results of these extensive investigations provided the framework for the SSS curriculum in that they provided a holistic picture of the variables that impact student success—from social and emotional learning to classroom instruction.

In essence, these reviews converged around a similar set of skills that were found to be essential to student success. Namely, these skills are (a) cognitive and metacognitive skills, (b) social skills and problem solving, and (c) self-management skills (Brigman, Webb, & Campbell, 2007). Given this commonality amongst an extensive body of research, the developers designed the SSS curriculum to reflect these three key components deemed essential to student success, taking a holistic approach to intervention by including both academic and social domains.

The SSS curriculum, guided by these three critical skill areas, is organized into five categories related to student achievement outcomes. These five areas focus on building (a) cognitive skills including memory and learning strategies; (b) attitudinal skills such as self-efficacy and healthy optimism; (c) social skills such as facilitating a supportive and encouraging classroom environment; (d) self-management skills related to anxiety, anger, attention, and motivation; and (e) behavioral skills including monitoring progress and setting goals (Lemberger et al., 2012). Each category is further broken down in the curriculum by providing concrete examples of how to address each area. For example, one way in which the curriculum addresses the cognitive domain is by educating students about specific memory strategies like grouping information and organizing them onto notecards to review repeatedly, stressing the importance of organization and repetition in learning and retaining new material.

SSS Format

The SSS curriculum is available in several formats and has continually been developed since its inception. Currently, SSS curriculum is divided into separate manuals based on students' age and the method of delivery provided by teachers and/or school counselors. Related to classroom manuals, SSS is available in a grade 4-12 classroom or group manual (Student Success Skills), a K-1 classroom manual (Ready to Learn), a grade 2-3 classroom manual (Ready for Success), a parent manual (Parent Success Skills), and a grade 4-12 Spanish cultural translation classroom manual (Spanish Cultural Translation: SSS Classroom Manual) (Brigman, Lane, & Lane, 2008; Brigman & Peluso, 2009; Brigman et al., 2010; Brigman & Webb, 2010).

The SSS curriculum varies in duration depending on its format. However, most group or classroom lessons are between 30-45 minutes and take place over a period of approximately 5-8 weeks without including booster sessions (Brigman & Campbell, 2003). Often, booster sessions are included following the last guidance lesson or group session to help maintain the skills and behaviors learned during SSS. Throughout the period of about 5-8 weeks, students are taught lessons based on the five focus areas previously mentioned. However, these five areas can be further narrowed to three categories for SSS as noted above -- cognitive skills, social skills, and self-management skills. For example, students are instructed to complete activities related to self-management, memory skills, and relationship-building. As they progress through the program, students are provided with opportunities each week to self-evaluate progress. In particular, students monitor changes in areas of nutrition, fun, exercise, social support, rest, energy, and mood as part of the "Looking Good/Feeling Good" worksheet each week as part of the classroom manual (Brigman & Webb, 2010).

Group Format. The structure of the group format is broken into a beginning, middle, and end that each contains consistent components each week (Brigman & Campbell, 2003; Brigman, Campbell, & Webb, 2010). The beginning of each group session involves four tasks including a check-in on feelings which also can include the “Looking Good/Feeling Good” worksheet, a review of the previous session, a discussion on goals and progress related to achievement and behavior, and finally an overview of what to expect in the current lesson. Following the beginning portion of the session, the major topic or activity of the lesson is presented using the “Ask, Tell, Show, Do” methodology for school counselors. Specifically, the school counselors “ask” what students already knew about the topic; “tell” students more about the topic through teaching; “show” how the information can be used; and “do” by asking students to apply the new information in role-plays, games, storytelling, or giving feedback. The final portion of each group session includes four objectives: summarizing and reviewing the material covered in group, processing as a group the feelings and experiences of the group members, setting specific goals for next week, and listening to what would be covered during the following week’s session.

Classroom Format. Similar to the group format, the classroom guidance lesson format has a consistent pattern each week. The first portion includes an introduction and a WIIFM or “what’s in it for me” statement to help grab the attention of students (Brigman & Campbell, 2003; Brigman & Webb, 2010). The goal of the introduction is to be interactive with the students by allowing them to share their perspectives on the topic. Next, the topic of the week is discussed in further depth by the counselor. Following this, the counselor may encourage students to break into smaller groups to share information. It is recommended that the counselors find means of engaging the students as much as possible—by using reflective listening, summarizing

responses, and integrating visual aids and props when appropriate. Following small group discussion, the groups provide information to the whole class about what they learned. Finally, the classroom guidance lesson ends with each student specifying individual goals and student summaries of the lesson.

SSS Theoretical Framework

It is important to note that the SSS curriculum is not simply a collection of strategies chosen at random, but rather an integrated, theoretically grounded approach. This is important because alignment of SSS with prominent theories helps to further support the structure and function of the SSS curriculum. In addition, theoretically grounded interventions help researchers and practitioners not only predict outcomes but also provide an explanatory mechanism between the intervention components and successful outcome.. In essence, SSS provides evidence of the translation from theoretically based strategies to practical applications in education—essentially, transforming theory into practice. This gap between theory and practice is often considered problematic in education; therefore, SSS, with its evidence-based, theoretical underpinnings addresses this dilemma (Lemberger et al., 2015).

Researchers have drawn connections between the SSS curriculum and humanism, cognitive and social change theories, and Adler’s individual psychology. Components of SSS align with each of these models, providing support for SSS in its orientation with well-established theories. Beyond these established theories, SSS is considered an evidence-based curriculum that is consistent with standards of ASCA.

Humanistic Theory. Villares et al. (2011) explored the similarities between the SSS curriculum and components of humanistic theory. Through this exploration, several key factors emerged as essential to both humanistic theory and SSS. Firstly, SSS places a heavy emphasis on

the philosophy that everyone has the ability to achieve success, which aligns with humanism's position of viewing individuals positively and as striving for self-actualization (Villares et al., 2011). As part of the SSS curriculum, students are taught to set concrete, attainable goals, create plans, and aim for progress. This encourages students to view themselves as capable and helps to enhance self-efficacy, another component of humanistic theory. When failure occurs, students are taught to be resilient and find a new strategy rather than doubting their capabilities (Brigman & Webb, 2010). Additionally, students involved in SSS are encouraged to share experiences and successes with peers, which solidifies the students' experiences of success and provides opportunities for important social interactions and support. This concept of peer sharing aligns with the humanistic concept of creating environments that facilitate responsive, relational interactions with others to stimulate growth (Bohart, 2003 as cited by Villares et al., 2011). Further, humanistic principles emphasize the possibility for change, which is inherent in the SSS program as it aims to create changes through education, goal-setting, and progress monitoring. Finally, the SSS curriculum aligns with humanism in that it is holistic rather than reductionistic (Villares et al., 2011). This holistic perspective allows students to understand the ways in which the various parts of their health, well-being, achievement, and behavior are interrelated.

Theory of Social and Cognitive Change. According to Lemberger et al. (2012), SSS is heavily influenced by a theory of change that posits that students are able to learn and succeed best when exposed to educational environments that encourage the integration of social, cognitive, and self-management skills. A key assumption of this theory of social and cognitive change is that when students' positive experiences of learning are contextualized into environments that create feelings of accomplishment and connectedness, changes in behavior and achievement result. This theory supports the idea that healthy relationships combined with

effective, specific strategies for learning related to social-emotional and cognitive skills allow for students to grow and reach greater personal potential.

The theory of change posits that change occurs when students' holistic needs are being met in environments where relationships are valued and evidence-based strategies are being implemented that teach students important transferrable cognitive and behavioral skills. According to this theory, such efforts can create marked improvements in cognition, behavior, and self-efficacy, among other social-emotional and academic outcomes.

Individual Psychology. As with humanism and the change theory, components of Adler's individual psychology can be found within the framework of the SSS curriculum. Adler's emphasis on social interest, goal-setting or striving for superiority, and encouragement are three specific constructs that emerge in SSS (Webb, Lemberger, & Brigman, 2008). Regarding social interest, SSS heavily emphasizes creating a supportive, relational social environment that encourages peer sharing. One concrete example of this within the curriculum is when students brainstorm and problem-solve together early on to develop a snapshot of what a supportive classroom environment would look like, sound like, and feel like. This culture of social support created within SSS mirrors Adler's conceptualization of social interest and interconnectedness among people.

There is time devoted in each lesson of the SSS curriculum to monitor progress toward goals, viewing goal-setting as a means to facilitate motivation and personal growth toward potential. One example of this is the "Looking Good/Feeling Good" tool that allows students to track their progress in the domains of nutrition, fun, exercise, social support, rest, energy, and mood (Brigman & Webb, 2010). This goal-setting example relates to Adler's position that all human behavior is goal-oriented and reflective of individuals' values. The "pull" that people feel

toward their goals, Adler argued, is really a striving for superiority over inferiority. Superiority in this case can be conceptualized as a sense of accomplishment of goals (Ansbacher & Ansbacher, 1956 as cited by Webb, Lemberger, & Brigman, 2008).

Finally, the concept of encouragement is a foundation in both Adler's theory and the SSS curriculum (Webb, Lemberger, & Brigman, 2008). In order to achieve success, particularly over obstacles that were previously or are currently perceived as challenging, students may need encouragement from peers and adults within their social support system. Encouragement, though embedded in many areas of the SSS curriculum, is exemplified in the "Imagine" poster. Students are provided encouragement through the four phrases on the poster: imagine, practice, start over, and you are very close. Each segment helps to encourage students to keep moving forward toward their goals and to try new strategies when necessary. It is this kind of encouragement that helps to promote motivation and tenacity through the curriculum.

Together, the tenets of humanism, the theory of change, and Adler's individual psychology provide theoretical support for the elements found in SSS. Given such overlap, the theoretical underpinnings of the SSS curriculum can be better elucidated and justified within the literature. By drawing connections between SSS and theories, SSS can be better understood within the context of broader, theoretical conceptualizations.

ASCA National Model. Although the ASCA National Model is not considered a theory, it does provide a theoretical framework within which school counselors aim to operate in designing and implementing comprehensive school counseling programs. The ASCA National Model provides guidelines concerning what school counselors must seek to accomplish through their programming, including academic, social-emotional, and career development for all students. School counselors can do this through individual and group counseling as well as

through guidance lessons and consultations with parents and teachers. As evidenced by a discussion of the SSS curriculum, SSS is in alignment with the domains of the ASCA National Model in that it addresses the academic and social-emotional needs of students. Further, an argument can be made that SSS also develops the career domain by providing students with opportunities to build skills that are transferrable to future careers and post-secondary education settings.

SSS involves the collection of data to examine the efficacy of the intervention, providing accountability for the program implementation and which currently aligns with the ASCA model. With the use of this data, school counselors are able to evaluate evidence to see if programming is effective and creates changes in student outcomes. To further bolster the alignment of SSS with ASCA related to data, SSS is a heavily researched, evidence-based, holistic curriculum. In terms of format, the SSS curriculum also complies with the ASCA National Model in that it can be offered in either small group or classroom settings—both settings recommended by ASCA (Lemberger et al., 2012).

SSS Previous Findings

After providing an overview of SSS, its format, and its theoretical underpinnings, previous findings must be explored to determine what outcomes have resulted from implementing SSS in school settings. The SSS curriculum has been shown to be an effective SEL intervention that positively impacts student achievement, addressing the issues related to student outcomes in schools. Further, SSS is a comprehensive, holistic approach to ameliorating and preventing academic and social failure. Gains in achievement as a result of SSS in previous studies have been shown by measuring behavioral variables, including self-regulation, feelings of connectedness, and standardized test scores (Brigman, Webb, & Campbell, 2007; Ohrt,

Webster, & De La Garza, 2014; Lemberger & Clemens, 2012). However, because of the holistic nature of SSS, it is likely that many other positive student outcomes occur. Importantly, researchers have taken initiative to further investigate SSS—how it works, which student variables it impacts, and which populations benefit from its implementation.

Achievement. A study conducted by one of the original authors of the SSS curriculum investigated its effects using both school counselor led small groups and classroom guidance lessons among students in grades 5, 6, 8, and 9 in Florida public schools. These specific grade levels were targeted as they represent elementary (5th grade), middle (6th and 8th grade), and high school (9th grade) students. Using data from the Florida Comprehensive Assessment Test (FCAT), 180 students were selected randomly from those that scored between the 25th and 50th percentile on the reading portion of the assessment. Students within this margin were of particular interest to district leaders, as they were performing below average but likely did not receive services (Brigman & Campbell, 2003). Students in this “grey” area have become of increasing interest and are often targeted using more modern multi-tiered systems of support (MTSS) practices. School counselors, teachers, and administrators alike are becoming more diligent about targeting students in this range of achievement. Additionally, a comparison group of students were also selected randomly from the same original pool of students scoring between the 25th and 50th percentile. These students were in the non-treatment group and were matched with the treatment schools on markers of race and socio-economic status.

Following recruitment, pre-test data was collected using the instruments of the FCAT and the School Social Behavior Scale (SSBS), a behavior rating utilized by the students’ teachers (Brigman & Campbell, 2003). Following the collection of this data, students participated in both the SSS classroom and group counseling curriculum. The classroom and group sessions of SSS

focused on cognitive, social, and self-management skills. These sessions were administered for 8 weeks and lasted approximately 45 minutes, followed by four booster sessions extended over the four months after the last traditional SSS session.

Following the intervention, post-test measures were taken, and results indicated an average of 22 percentile points of improvement on the SSBS. Because no comparison data was collected on the SSBS, statistics were not utilized. Concerning the FCAT, a significant difference was found between treatment and non-treatment students on both reading scores and math scores. Taken together, these results show that the SSS group and classroom guidance lessons were effective in improving math, reading, and behavior scores among 5th, 6th, 8th, and 9th graders in Florida schools. As a consequence of the SSS intervention and its results, school counselors were provided with a measure of their impact, which led to increased support from administrators regarding their social-emotional work and also a new position for a data specialist in the schools.

Following the initial study, Webb et al. (2005) provided a replication of their initial research. With 418 5th and 6th grade participants from 20 elementary and middle schools in Florida scoring between the 25th and 60th percentile on the previous year's FCAT, the researchers utilized a pre-test post-test design measuring student academic and behavioral changes using the FCAT and SSBS. Concerning the implementation of SSS, the school counselors involved provided the group format for 45 minutes over the course of 8 weeks starting in October, followed by four booster sessions spanned from January through April. Results revealed that both 5th and 6th grade students receiving the treatment scored significantly higher in math than the comparison group. In fact, 85 % of students in the treatment group increased their math scores on the FCAT by an average of 27 scale score points. In terms of reading scores, no

significant difference was found between the treatment and comparison groups; however, students in the treatment group improved their reading scores by an average of 12.9 points. Overall, 75% of students in the treatment group improved their reading scores. Further, teachers reported that 72 % of the students participating in SSS showed improvements in behavior as measured by SSBS.

Several years following the original study and first replication study, the authors provided an additional replication of their initial research, aiming to provide additional support for their findings (Brigman, Webb, & Campbell, 2007). Again, the authors used a pre-test posttest design with measures of the FCAT and SSBS to evaluate the efficacy of SSS among Florida students in grades 5, 6, 8, and 9. Two-hundred and twenty (220) students were recruited from 12 Florida schools. As before, these students were randomly selected from a pool of students scoring between the 25th and 50th percentile on the FCAT, as were the comparison students. Following recruitment and pre-test data collection, school counselors led the classroom and small group formats of SSS for 8 sessions with 4 booster sessions spanned over the several months following the final formal session. After collecting post-intervention data, including the SSBS scores from teachers, researchers found a significant difference between treatment and control groups for the math portion of the FCAT; however, no significant difference was observed between the treatment and control groups for the reading portion of the FCAT. Regarding the behavior ratings, 60 % of students improved rated behaviors from September to April with an average improvement of 18 percentile points.

Considering the three studies measuring academic achievement and behavior in Florida schools using the FCAT and SSBS, it is clear that the SSS classroom curriculum combined with the small group curriculum is an effective and worthwhile intervention for school counselors to

implement. However, a closer examination of these studies has revealed limitations that need further attention in subsequent research. In particular, results on comprehensive exams and subjective behavior ratings only convey a small portion of each student's level of achievement. In future studies, it would be helpful to also incorporate variables like grades, attendance, and student perspectives on their improvements following SSS. Additionally, research conducted by investigators that do not financially benefit from the implementation of SSS is needed, as the authors of the previously discussed studies had a clear conflict of interest.

Social Support. As previously discussed, social support systems are known mediators of various markers of student success, including academic achievement and behavioral outcomes (Demaray et al., 2005; Elliott, Malecki, & Demaray, 2001; Kiefer et al., 2015; Levitt et al., 1994; Rosenfeld et al., 2000; Wentzel et al., 1998). Given the importance of social support systems in influencing student outcomes like grades, attendance, and self-efficacy, it is a valuable variable to examine in holistic interventions like SSS that aim to address the social-emotional needs of students.

Lemberger et al. (2015) and Lemberger and Clemens (2012) investigated the effects of the SSS curriculum on feelings of connectedness, a construct measured by the Child and Adolescent Social Support Scale (CASSS) as perceived levels of social support. More specifically, Lemberger et al. (2015) investigated the effects of the SSS curriculum on feelings of connectedness, academic achievement, and cognitive functioning among middle school students—tying together cognitive, social, and academic outcomes, a previous gap in SSS literature. Following recruitment of 193 7th grade students, the researchers collected pre-test measures from the treatment group, implemented the curriculum once per week for an hour for a period of 5 weeks, and then collected post-test data. Students assigned to the wait-listed group

took the pre-tests and posttests but did not receive the SSS curriculum until all posttests were collected.

The measures utilized included the Behavior Rating Inventory of Executive Functions (BRIEF-SR), the CASSS, and the Discovery Education Assessment (DEA), an academic achievement test. Importantly, the CASSS is a self-report Likert-type measure that assesses adolescents' perceptions of social support from five domains: parents, teachers, classmates, close friends, and people in the school. This allows for analysis of the various sources of support, both individually and in combination, to attain a snapshot of perceived levels of support in the present moment. Results from this study showed significant treatment effects for executive functioning, feelings of connectedness to classmates, and achievement in math and reading. This demonstrates that the SSS curriculum led to positive changes in executive functioning, perceived social support, and academic achievement—mirroring the intentions of the SSS curriculum.

Whereas Lemberger et al. (2015) only yielded significant results in terms of feelings of connectedness to classmates, additional studies have found evidence for other domains of social support increasing following the implementation of the SSS curriculum. Working from the premise that students who report feelings of connectedness to school also report feelings of belonging, support, safety, and engagement in learning (Barber & Schluterman, 2008), Lemberger and Clemens (2012) conducted a similar study using the SSS curriculum in an inner-city elementary school, measuring changes in metacognitive skills and feelings of connectedness to school. The participants for this study were 120 4th and 5th grade students who had been identified by teachers as having low academic performance and problematic classroom behavior. Following recruitment, the SSS small group counseling format was utilized, spanning 8 sessions. The measures utilized pre and post-treatment were the CASSS, the BRIEF, and the Junior Meta-

Cognition Awareness Inventory (Jr. MAI). Results revealed significant differences between control and treatment groups in terms of self-reported school support as well as self-reported metacognitive skills. Further, a significant difference was found between teacher reports of executive function between treatment and control groups. Overall, the researchers demonstrated the impact of the SSS curriculum on executive function, and importantly, social support.

Taken together, these studies elucidate the strength of the relationship between the SSS curriculum and changes in perceived social support, especially among elementary and middle school students. Such a relationship is important to note given the wide array of positive academic and behavioral outcomes related to the perceived presence of social support. However, gaps exist in that further research is needed, particularly related to SSS effectiveness among high school students. Given that previous research has shown the impact of parental support on achievement outcomes among college-aged students, one can postulate that perceived social support may likely impact high school student outcomes as well (Cutrona et al., 1994). If the SSS curriculum leads to increases in perceived levels of social support, positive outcomes like increased self-efficacy, higher grade point averages, and better attendance may occur, ultimately leading to increased student success academically and social-emotionally.

Gaps in the Literature

The literature covering SEL, SSS, academic success, and social-emotional functioning among students is vast (Brigman, Webb, & Campbell, 2007; Diseth, 2011; Durlak et al., 2015; Lemberger & Clemens, 2012; Lemberger et al., 2012; Ohrt, Webster, & De LA Garza, 2014; Weissberg et al., 2015; Zins et al., 2004). However, despite a thorough literature base, there are several gaps in our knowledge base that are noteworthy. In particular, future research is needed to examine the effects of SSS on achievement measures other than standardized test scores, the

effects of SSS on attendance and self-efficacy, and the effects of SSS among students of higher grade levels. Importantly, more research in these areas need to be conducted by school counselors, who can have immediate access to results and apply them in their respective school settings to improve student outcomes. Finally, there is a need for research surrounding SSS that integrates these elements—grades, attendance, and high school age students—to provide support that the intervention mediates academic and social-emotional outcomes beyond the parameters of standardized test scores among primarily elementary and middle school students.

Concerning achievement, most studies examining the effects of SSS utilize standardized testing as the sole measure of achievement (Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Webb, Brigman, & Campbell, 2005). Although standardized test scores can certainly provide a snapshot of student abilities, many students struggle to perform under such high-stakes testing. Moving forward, value can be added to the current literature by incorporating an examination of grades as a measure of achievement, as grades are often a major determinant for high school students' academic success and post-secondary education opportunities.

Along with grades, attendance plays a major role in student success and is tied to many student outcomes (Bowers, 2010; Messacar & Oreopoulos, 2013; Lemberger et al., 2015). However, no current research has examined changes in attendance as a marker of student engagement, though many schools consider attendance to be of utmost importance in predicting future student success. Often, schools are looking for ways to improve attendance, viewing it as an essential determinant of student engagement. Put simply, if students do not regularly attend school, their achievement scores and relationships within the school are affected. Given this, the

SSS curriculum, because of its strong ties to positive behavioral outcomes, may be an appropriate intervention to increase attendance rates among students who are considered at-risk.

Another outcome variable that is missing from SSS research is self-efficacy. Due to the social-emotional focus of SSS, self-efficacy would be a useful variable to analyze, as it has also been tied with student success behaviors. Components of SSS, including the emphasis on “not doubting the self” strategies when failure occurs, are related to self-efficacy and building a sense of competency among students. Again, self-efficacy has been strongly linked with positive outcomes including increased motivation and persistence, which may in turn translate to increases in academic outcomes including grades (Sungur & Gungoren, 2009).

In addition to the aforementioned gaps, further research is needed to more fully explore the effects of the SSS curriculum among high school students. Much of the current literature surrounding SSS involves elementary and middle school students with occasional inclusions of 9th graders (Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Lemberger et al., 2015; Lemberger & Clemens, 2012; Webb, Brigman, & Campbell, 2005). Given that high school students are at the crux of many important decisions about their futures, it is a crucial time to intervene. Early intervention with students in elementary and middle school is certainly essential; however, high school students must not be forgotten, particularly given the research that has shown the importance of the freshman year in terms of markers of achievement, particularly graduation rates (MacCullumore & Sparapani, 2010).

Finally, there is a paucity of research conducted by school counselors, including the body of research related to SSS. As mentioned previously, school counselors are becoming increasingly pressured to account for, by collecting and analyzing data, the changes they bring about in school settings. Essentially, in order to advocate for themselves and the school

counseling profession, school counselors must step forward and provide data to demonstrate their efficacy within school settings. Given this, there is a need for school counselors to conduct research to analyze the effects of the interventions they implement. SSS is a particularly appropriate intervention to analyze, given that it is traditionally implemented by school counselors and is considered holistic, allowing school counselors to analyze data on several student success domains in one intervention. SSS provides school counselors an opportunity to analyze academic as well as social-emotional outcomes in direct alignment with the expectations of ASCA.

Conclusion

In summary, this literature review included the necessary background information relevant to the SSS curriculum, a key intervention in the current study, and associated topics, including the current academic climate, MTSS, the role of school counselors, social-emotional learning, theoretical underpinnings of SSS, as well as the gaps in the current literature surrounding SSS. It is clear based on the previous research that SSS is an evidence-based SEL intervention that falls within the model of MTSS. Due to the body of research supporting SSS but also the gaps in this body of literature, there is adequate justification for additional inquiry into the effects of SSS on self-efficacy, social support, grades, and attendance among high school students. Such an investigation could further validate SSS among a new population, high school students, while looking at novel markers of student success, including grades and attendance, as well as provide support for the positive effects of school counselors. The following chapter will detail the proposed methodology for the present study.

CHAPTER III. METHODOLOGY

In Chapter 1, an overview of the framework for the present study including the purpose of the study, statement of the problem, research questions, need for the study, and definition of terms was provided. Chapter 2 consisted of a survey of the literature related to SSS as well as background information on topics relevant to the SSS curriculum, including the current academic climate, MTSS, the role of school counselors, social-emotional learning, theoretical underpinnings of SSS, as well as the gaps in the current literature surrounding SSS. In the present chapter, an outline of the methodology for the current study is provided. This chapter begins with the research questions and hypotheses, followed by participant information, procedures, a description of the intervention, instrumentation, study design and analyses, and delimitations.

The following contains all elements of the methodology utilized in this study. Methodology is organized as follows: (1) research questions, (2) research hypotheses, (3) research design, (4) data collection, and (5) data analysis.

Research Questions and Hypotheses

After reviewing the literature surrounding SSS and considering the gaps in the literature to be addressed, the following research questions and hypotheses have emerged:

Research Question 1 (RQ1)

What are the effects of SSS on self-reported self-efficacy among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 1 (H1). The SSS curriculum will significantly increase self-reported self-efficacy scores among students identified as having a D or F in a core course and/or attendance

rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 2 (RQ2)

What are the effects of SSS on self-reported social support among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 2 (H2). The SSS curriculum will significantly increase self-reported social support among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 2a (RQ2a). What are the effects of SSS on self-reported social support from parents among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 2a (H2a). The SSS curriculum will significantly increase self-reported social support from parents among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 2b (RQ2b). What are the effects of SSS on self-reported social support from teachers among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 2b (H2b). The SSS curriculum will significantly increase self-reported social support from teachers among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 2c (RQ2c). What are the effects of SSS on self-reported social support from classmates among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 2c (H2c). The SSS curriculum will significantly increase self-reported social support from classmates among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 2d (RQ2d). What are the effects of SSS on self-reported social support from close friends among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 2d (H2d). The SSS curriculum will significantly increase self-reported social support from close friends among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 2e (RQ2e). What are the effects of SSS on self-reported social support from people in school among students identified as having a D or F in a core course

and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 2e (H2e). The SSS curriculum will significantly increase self-reported social support from people in school among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 2f (RQ2f). What are the effects of SSS on self-reported importance of social support among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 2f (H2f). The SSS curriculum will significantly increase self-reported importance of social support among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 3 (RQ3).

What are the effects of SSS on attendance rates among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 3 (H3). The SSS curriculum will significantly decrease the number of days missed among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Research Question 4 (RQ4)

What are the effects of SSS on grades among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest?

Hypothesis 4 (H4). The SSS curriculum will significantly increase grades among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Taken together, it is hypothesized that the SSS curriculum will produce positive changes among the variables of self-efficacy, social support, attendance, and grades.

Participants and the Intervention

Participants

To address the aforementioned research questions, the following population was utilized. The target population was students from a high school in the upper Midwest who were identified for the placement in the study by a teacher or counselor and/or as having a D or F in a core course and/or attendance rates of 80 % or less—an MTSS targeted population. Specifically, these students were 9th- 12th graders, in compliance with the high school's current programming objectives.

In order to obtain the participants, convenience sampling techniques were utilized based on the eligibility criteria of having a D or F in a core course and/or having an attendance rate of 80 % or less and/or recommendation by a teacher or counselor, resulting in the placement in an MTSS study hall as part of the school's social-emotional pathway. The PowerSchool program was used to identify students that meet these criteria. Students completed an assent form, and families were sent a passive consent form via mail before any data was collected. Students that

did not turn in the forms were not included in the study but were required to participate in the assigned curriculum as part of their academic study hall established by the respective school.

The *n* size for the following study was dependent on the number of academic study halls as well as the number of students who met the eligibility criteria and provided assent. While approximately 100 students were enrolled in academic study halls receiving the intervention, the *n* size for the study in terms of those who completed assent forms at the time of the pre-questionnaires was 63.

Intervention

As discussed in the second chapter, SSS is an evidence-based, SEL curriculum that emphasizes the domains of (a) cognitive and metacognitive skills, (b) social skills and problem solving, and (c) self-management skills. From these three domains, the SSS curriculum is further divided into five categories: (a) cognitive skills including memory, (b) attitudinal skills such as self-efficacy, (c) social skills, (d) self-management skills, and (e) behavioral skills including progress monitoring and goal setting (Lemberger et al., 2012; Brigman, Webb, & Campbell, 2007). Essentially, the program aims to link SEL to increased academic and behavioral outcomes, particularly among students considered “at-risk.”

In the current study, I utilized the classroom guidance lesson format, which has a consistent pattern each week for 5 weeks plus one booster session one month following the fifth lesson. The lessons were presented in alignment with the SSS classroom curriculum. A PowerPoint presentation was utilized as a guide throughout the lessons. The first portion of the lesson each included an introduction and some type of ice-breaker question to encourage student engagement. The goal of the introduction was to be interactive with the students by allowing them to share their perspectives on the topic (Brigman & Campbell, 2003; Brigman & Webb,

2010). Additionally, students were encouraged to share the results of their “Looking Good Feeling Good Life Skills” worksheet (See Appendix). Next, the topic of the week was discussed in further depth by the counselor(s). Following this, the counselors used various methods to allow students to share information about their goal-setting worksheets. The curriculum recommends that the counselors find means of engaging the students as much as possible—by using reflective listening, summarizing responses, and integrating visual aids and props when appropriate. Therefore, small departures from the curriculum were made in order to encourage and sustain student engagement. The classroom guidance lessons typically ended with a brief summary of the lessons.

The duration of the guidance lessons was approximately 5 weeks, and each week included similar content. However, variations by week did occur. The lessons were approximately 45 minutes in length. The first 5 weeks upheld the aforementioned format, with slight variations week to week in the middle portion of the lessons. The middle portion content of week 1 included a discussion of building supportive communities and healthy optimism. Week 2 included education and discussion around performing under pressure and related strategies to manage stressful experiences. Additionally, week 2 introduced the “Seven Keys to Mastering Any Course” worksheet (See Appendix), which allowed students the opportunity to monitor progress in 7 key areas related to success in classes. The middle portion of week 3 included information about memory strategies including using graphic organizers and index cards. Week 4 covered the topic of story structures, framing it in terms of being able to remember and share stories more effectively. Students practiced telling stories, breaking them into beginning, middle, and end according to their characteristics through a role playing activity. The activity involved students working in small groups to develop stories with clear beginning,

middle, and end components. Students were then asked to discuss the value of knowing story structure in classes like English and social studies. Week 5 was the final week before the booster session, and its content included a review of story structures as well as opportunities for students to tell their own stories in response to the prompts provided. This session ended with a review of all topics covered in the curriculum, especially the “Looking Good, Feeling Good” and “Seven Keys to Mastering Any Course” worksheets (Brigman & Webb, 2007).

The booster session involved the same format, beginning with a check-in, progress monitoring in reference to the “Looking Good, Feeling Good” worksheet, and the presentation of a content area related to self-management, cognitive, or social skills. For example, the booster session covered skills such as managing test anxiety using previously covered strategies. The booster session took place approximately one month following the end of the classroom lessons. Although the curriculum calls booster sessions up to three times, the present study only analyzed data following one booster session (Brigman & Webb, 2007). However, 3 booster sessions were implemented as part of the study hall intervention, 2 being after the time of data collection.

Table 1 includes the general outline of topics that comprise the SSS curriculum for the current study.

Table 1

Outline of Student Success Skills Middle Content by Week

Time	Curriculum Focus
Week 1	Caring, supportive, encouraging classroom
Week 2	Performing under pressure
Week 3	Memory strategies
Week 4	Story structure
Week 5	Story structure review & positive self-talk
Booster	Review strategies, health & wellness, & practice applications

Instrumentation

To measure self-efficacy, the Self-Efficacy Questionnaire for Children (SEQ-C) was utilized (Muris, 2001). The SEQ-C is a self-report scale that measures three domains of self-efficacy among youth: social self-efficacy referring to a child's ability to handle social issues, academic self-efficacy referring to a child's perceived ability to experience academic success, and self-regulatory self-efficacy referring to a child's ability to withstand and resist peer pressure (Muris, 2001; Cornell, 2007). This brief questionnaire of 24 items is intended for youth ages 14 – 18 and has been used extensively in the field. Items are provided in question format, and responses are provided on a Likert-type scale of 1 to 5, with 5 meaning “very well.” The SEQ-C has demonstrated strong reliability, with a Cronbach's Alpha of .88 for overall self-efficacy and between .85 and .88 for the subscale scores (Cornell, 2007; Suldo & Schaffer, 2007). Concerning validity, an exploratory factor analysis conducted by Muris (2001) revealed three factors that were “in keeping with the intended subscales: social self-efficacy, academic self-efficacy, and emotional self-efficacy” (p. 148). Ultimately, these factors accounted for 53.3 % of the variance.

When three questions were excluded from the final analysis due to unconvincing loadings, the three remaining factors accounted for 56.7 % of the variance (Muris, 2001). The SEQ-C results in an overall total self-efficacy score and separate subscale scores for social, academic, and emotional self-efficacy. For purposes of this study, only the total self-efficacy score was used.

To measure the variable of social support, the Child and Adolescent Social Support Scale (CASSS) was utilized. This measure has been used consistently in the literature; further, it has been utilized by researchers examining the effects of SSS on social support (Lemberger & Clemens, 2012; Lemberger et al., 2015). The CASSS is a 60 item self-report scale that measures five separate areas of social support: parents, teachers, classmates, close friends, and people in the school. Each of these sub-areas has 12 questions. The respondent indicates “how often” (frequency) and “how important” (importance) for each item on a Likert-type scale. For example, a student may be given the prompt “My teacher(s) care about me” and respond from *never to always* (1 to 6) for the “how often” domain and from *not important to very important* (1 to 3) on the “how important” domain. This scale has been deemed appropriate for youth in grades 3-12. To score this measure, a score for the frequency ratings on each sub-category was calculated. Additionally, a total score for the importance ratings was calculated.

Malecki and Demaray (2006) provided evidence of reliability and validity in their studies among middle school students as well as additional researchers who used the CASSS. High internal consistency has been observed for the “People in My School” subscale, as shown by a coefficient alpha of .93, and overall high construct validity of each of the subscales (Lemberger & Clemens, 2012). Further, a factor analysis revealed a five-factor framework between the subscales, and factor loadings ranged from .52 to .81 within each factor with no dual loadings above .30 (Lemberger & Clemens, 2012). Following their study, Lemberger and Clemens (2012)

observed Cronbach's alpha reliability at .95 at pretest and .94 at posttest for the subscale of "People in My School."

The variables of grades and attendance were measured using data obtained directly from student records. No self-report measures were utilized for these variables. Grades were measured by examining grades pre and post-intervention in the same way that attendance was measured. More specifically, attendance was measured by taking an average number of missed days in the present school building before the intervention, as measured by the previous year's last quarter attendance, and again at a 4-week follow-up. Important to note, student attendance is monitored by class periods—specifically the number of class periods missed. In order to calculate the average days missed, the total number of periods missed was divided by the number of enrolled periods in a school day. Due to time constraints as well as the fact that the majority of the intervention takes place within the first 5 weeks, data beyond the 4-week follow-up was not collected. Importantly, the booster sessions contain identical information; therefore, the students had been exposed to all of the SSS materials upon completion of the first booster session.

Procedures

Following NDSU IRB and school district approval, the researcher and school counselor employed by the school implemented the following procedures. Importantly, the procedures are in replication of a pilot implementation of SSS by the school counselors of the same school district of interest during the previous academic year. Following identification of students meeting the eligibility criteria, students were placed in MTSS academic study halls as part of the high school's MTSS social-emotional pathway. In order to obtain baseline grades among incoming 9th graders, final grades from 4th quarter of 8th grade were analyzed. Consistent with grades, attendance was collected by obtaining the average number of absences in the 4th quarter

during the previous academic year. Again, incoming freshmen data was analyzed by collecting their attendance during the 4th quarter of 8th grade.

Following placement in MTSS academic study halls, students were presented with an assent form outlining the nature of the study (See Appendix B). Parents and guardians were sent a passive consent letter prior to the onset of the curriculum, as well (See Appendix A).

Importantly, all students received the intervention as part of their coursework for MTSS academic study halls. However, students who did not give assent were excluded from data collection procedures.

In terms of intervention administration, licensed professional school counselors and I administered the intervention once per week for 45 minutes for 5 weeks plus an additional booster session. Two additional booster sessions were conducted; however, these were not included in data collection procedures. In total, 10 MTSS academic study halls received the SSS curriculum with 2 counselors leading the intervention. All counselors, myself included, led 2 study hall periods. Importantly, the professional school counselors piloted SSS during the past academic year and were well-versed in its implementation.

During the first day of the intervention prior to any instruction, students completed pre-test questionnaires to measure the variables of self-efficacy and social support using the Self-Efficacy Questionnaire for Children (SEQ-C) and the Child and Adolescent Social Support Scale (CASSS). A cover sheet was developed to allow students to write their name, grade, and gender, which was later used for coding purposes (See Appendix C). However, no identifying information was included on the surveys. Further, the coding procedures were carried out by the MTSS Coach, as she assigned each participant a number and matched them across pre-post time points. Most students took approximately 15 minutes to complete the questionnaires.

Following pre-test measures, students were led through the SSS classroom curriculum for a period of approximately 5 weeks, dependent on potential school holidays. When a holiday occurred, the intervention continued during the following week. All 5 lessons were administered to all MTSS academic study halls. Upon completion of the first 5 lessons and booster session, the students completed the post-test questionnaires, both the SEQ-C and the CASSS. Following the completion of the initial booster session and questionnaires, two additional booster sessions took place with one month between sessions. Altogether, 3 booster sessions were implemented over a period of approximately 3 months. However, only data from the first booster session is included in the present study. At the end of the first booster session, students completed the SEQ-C and CASSS to measure the maintenance of self-efficacy and social support at a one-month follow-up. Similarly, student grades and attendance were analyzed at pre-intervention and post-intervention at the end of 1st quarter, which fell approximately 1 week from the end of the booster session. Due to time constraints and the fact that the booster sessions are identical, data was not collected beyond the 4-week follow-up. Importantly, by the end of the first booster session, students were exposed to all of the SSS curriculum materials.

Study Design

In the current study, a pre-experimental, one-group pretest-post-test design with was used. The measurement time points that were used for the variables of self-efficacy and social support were pre-intervention at the beginning of the first SSS lesson and post-intervention at the end of the first booster session. Baseline, or pre-intervention, scores for grades were obtained for 9th graders by analyzing 4th quarter grades in 8th grade. Importantly, 8th grade final grades were only accessible for students who remained in the district. Baseline scores for grades among 10th through 12th graders were obtained by analyzing 4th quarter grades in 9th, 10th, or 11th grade.

Baseline attendance was obtained by converting period attendance to the average number of school days absent during 4th quarter in a similar manner as grades. The distinction in design between the achievement variables of grades and attendance versus the social-emotional variables of self-efficacy and social support is that the achievement variables were pulled from quarter 1 reports rather than at an identical time as the booster session, given that quarter grades are most practical for measuring academic progress. There was a 2-week gap between the end of quarter 1 and the time of the first booster session.

Data Analysis

All data was entered into SPSS version 23. To address Research Question 1 (R1), the researcher utilized a repeated measures *t-test* of pre, post, and follow-up data with SSS representing the independent variable and the SEQ-C representing the dependent variable. To address Research Question 2 (R2), the researcher utilized two repeated measures *t-tests* of pre, post, and follow-up data with SSS representing the independent variable in both analyses and frequency and importance of social support serving as the dependent variables, respectively. These dependent variables were measured by the CASSS. To address Research Question 3 (R3), the researcher utilized a repeated measures *t-test* with SSS representing the independent variable and attendance percentages representing the dependent variable. Attendance percentages were measured as the average number of absent school days during 4th quarter of the previous academic year and again at the end of the 1st quarter of the current academic year. To address Research Question 4 (R4), the researcher utilized a repeated measures *t-test* with SSS representing the independent variable and grades representing the dependent variable. Grades were measured at the same time points as attendance. In the future, a true experimental design can be implemented to provide further insights into the effectiveness of the SSS curriculum.

Table 2

Study Summary: Research Questions, Hypotheses, Variables, and Analysis

Research Question	Hypothesis	Independent Variable	Dependent Variable	Data Analysis
What are the effects of SSS on self-efficacy?	SSS will significantly increase self-reported self-efficacy	SSS	Self-efficacy (SEQ-C)	Repeated measures <i>t-tests</i>
What are the effects of SSS on self-reported social support?	SSS will significantly increase self-reported social support	SSS	Social support (CASSS)	Repeated measures <i>t-tests</i> (total frequency) Repeated measures <i>t-tests</i> (total importance)
What are the effects of SSS on attendance rates?	SSS will significantly increase attendance rates	SSS	Attendance	Repeated measures <i>t-tests</i>
What are the effects of SSS on grades?	SSS will significantly increase grades	SSS	Grades	Repeated measures <i>t-tests</i>

Delimitations

A delimitation of the study includes the lack of a control group, creating a threat to internal validity. As such, firm conclusions about any cause and effect relationships must be tentative. However, a control group was not feasible due to significant constraints within the school system and scheduling of students. In addition, it would have been unethical to deny students the opportunity to participate in a curriculum that is known to increase positive academic and social-emotional outcomes. A second delimitation includes the lack of a random selection process, thus potentially impacting external validity of the study. The researcher utilized a convenience based sampling frame, where students were selected for the curriculum on the basis of school performance. Another delimitation is the use of self-report measures of self-

efficacy and support. Although the researcher established the importance of the study and stressed participant anonymity, it is possible that students may have under or over reported their levels of each variable. Anecdotally, many students seemed to experience fatigue effects while taking the surveys, rushing to finish and circling rows of numbers rather than individually circling each item. Additionally, many students openly expressed disappointment in having to fill out the surveys a second time, remembering having taken them at the beginning of the quarter.

In addition to these limitations, a major limitation was student attendance during the curriculum. One of the eligibility criteria of the intervention is attendance at or below 80%, and thus, many of the students have low attendance. This translates to a number of students with low attendance rates during the intervention. If students with more than 1 absence were to have been excluded from the study, the *n* size would have drastically decreased. While this could have been done, it is important to consider how data is collected in school systems and what is practical for schools' needs. Most administrators and counselors are interested in the whole picture of success, knowing that attendance is an issue. For an at-risk youth intervention to be effective, it must be effective among the population—not among only those with the highest attendance in that group.

Finally, student “buy-in” was perhaps the biggest challenge and limitation of the methodology. Each counselor worked with a unique style to enhance levels of engagement as much as possible; however, periodically students expressed disappointment when counselors entered during the study hall, as they often forgot we were coming or hoped to be working on homework instead. Over time, buy-in increased alongside each counselor’s definition of a successful classroom lesson. Small departures were made from the curriculum in order to facilitate interpersonal dynamics and create energy among the students. For example, candy was

occasionally included in lessons to facilitate engagement. All in all, the reality of high school education is that educators must demonstrate ongoing flexibility in order to meet students where they are while still remaining committed to student success.

Summary

The methodology for the present study was reviewed, including the research questions, hypotheses, participants, intervention, instrumentation, procedures and data analysis. In short, 9th through 12th grade students with a D or F in a core course and/or attendance rates of 80 % or less and/or recommendation for placement by teachers or counselors received the SSS intervention over a span of approximately 5 weeks followed by 1 booster sessions 4 weeks following the 5th lesson. In total, the study took approximately 9 – 10 weeks. In terms of study design, the present study implores a pre-experimental, pre-test, post-test design. Data was analyzed using repeated measures *t-tests*. Students completed the SEQ-C and CASSS pre-intervention, immediately following the intervention, and again at a 4-week follow-up. Grades and attendance were analyzed at 4th quarter and 1st quarter time points. Together, the variables of self-efficacy, social support, grades, and attendance were measured as markers of the efficacy of the SSS curriculum.

CHAPTER IV. RESULTS

Chapter 1 provided an outline of the present study including the purpose, statement of the problem, research questions, rationale for the study, and definition of terms to be used in the study. Chapter 2 provided an overview of the literature related to the target population, the SSS curriculum, the current academic client, MTSS, the role of school counselors, social-emotional learning, theoretical influences on SSS, and the current caps in literature related to SSS. Chapter 3 detailed the methodology for the study, and its sections included research questions and hypotheses, participants and the intervention, instrumentation, study design, data analysis, and delimitations. The current chapter will include the results of the present study related to changes in self-efficacy, social support, attendance, and grades.

Description of Participants

The target population for the current study was a group of high school students from the upper Midwest who was identified as having a D or F in a core course and/or attendance rates less than 80% and/or recommended for placement in the intervention by teachers or counselors—an MTSS targeted population. Specifically, these students were 9th- 12th graders, in compliance with the high school's current MTSS programming objectives.

To recruit participants, convenience sampling techniques were utilized based on the eligibility criteria of having a D or F in a core course and/or having an attendance rate of 80 % or less, and/or recommendation for placement from teachers or counselors resulting in the placement in an MTSS study hall as part of the school's social-emotional pathway. The *n* size for the current study was dependent on the number of academic study halls as well as the number of students who met the eligibility criteria and provided assent. Although approximately 100 students were enrolled in academic study halls receiving the intervention, only 63 students

completed assent and were thus eligible. In addition, some students remained in the curriculum after no longer meeting these criteria due to personal choice or the conclusion that success was attributed to a the piloted SSS or study hall interventions. Therefore, some students had participated in the SSS intervention during the previous pilot year. These students were included in the sample.

However, the *n* size fluctuated among the variables of self-efficacy, grades, and attendance due to various factors such as accessibility of records, attendance on the days surveys were given, missing data, and data outliers. Exact *n* sizes are listed for each variable in the descriptives and paired samples tables.

Table 3 shows the grades and self-reported genders of students who took the pre and post SEQ-C and CASSS. Notably, there are more 9th and 10th graders than 11th and 12th graders. There is a fairly even split of self-reported gender, with slightly more male students. Genders and grade levels were not collected for grades and attendance data.

Table 3

Self-reported Genders of Students Grades 9 through 12 on the Pre and Post SEQ-C and CASSS

	Male	Female	Total
9 th Grade	12	9	21
10 th Grade	12	13	25
11 th Grade	6	1	7
12 th Grade	5	5	10
Total	35	28	63

Descriptive Statistics

Table 4 shows mean differences pre and post-intervention for all survey data, including the SEQ-C and CASSS. The CASSS was analyzed by pairing each sub-grouping of the

assessment: parents, teachers, classmates, close friends, people in my school, and importance in accordance with the assessments proper analysis procedures (Malecki et al., 2000).

Table 4

Means, Standard Deviations, and Standard Errors of the Mean for Survey Data

	Mean Pre/Post	<i>n</i> ¹	Std. Deviation	Std. Error Mean
Pair 1: SEQ-C	87.087 87.140	58	13.716 11.702	1.802 1.562
Pair 2: CASSS Parents	58.059 55.781	58	11.536 9.56589	1.518 1.256
Pair 3: CASSS Teachers	59.062 54.858	58	11.297 8.883	1.486 1.197
Pair 4: CASSS Classmates	49.978 49.373	58	13.369 10.639	1.757 1.432
Pair 5: CASSS Close Friends	61.389 60.234	58	12.287 6.639	1.615 .918
Pair 6: CASSS People in School	49.036 43.107	58	14.128 9.621	1.853 1.278
Pair 7: CASSS Importance	131.612 124.637	58	22.454 27.007	2.961 3.566

¹ After multiple imputation and removal of outliers (see discussion below).

There is little change between pre and post-intervention for self-reported self-efficacy as well as social support of classmates and close friends. However, notable decreases occurred for social support of parents, teachers, people in school, and importance, as discussed below. Table 5 shows that the average days that students missed school from pre to post intervention (quarter 1 to quarter 4) increased by 0.595 days.

Table 5

Means, Standard Deviations, and Standard Errors of the Mean for Attendance in Average Days Missed

	Mean	<i>n</i> ¹	Std. Deviation	Std. Error Mean
Average Days Missed Pre	4.549	44	2.543	.427
Average Days Missed Post	5.144	44	2.886	.458

¹After multiple imputation and removal of two outliers.

Table 6 outlines the descriptive data for Research Question 4 with an outlier retained.

Grade percentages increased from pre to post-intervention for both core and overall grades. The most notable increase is from pre to post overall grades with an increase of 3.31 percentage points

Table 6

Means, Standard Deviations, and Standard Errors of the Mean for Pre/Post Core Averages and Pre/Post Overall Averages of Grades in Percentages with Outlier Retained

	Mean	<i>n</i>	Std. Deviation	Std. Error Mean
Pre-core average	70.650	41	10.726	1.675
Post-core average	71.249	41	9.852	1.539
Pre-overall average	73.850	41	11.432	1.785
Post-overall average	77.160	41	7.534	1.177

Table 7 shows increases in both core and overall grade percentages from pre to post intervention, with an outlier removed. The most notable increase from pre-overall grade averages to post-overall grade averages at a difference of 2.834 percentage points.

Table 7

Means, Standard Deviations, and Standard Errors of the Mean for Pre/Post Core Averages and Pre/Post Overall Averages of Grades in Percentages with Outlier Removed

	Mean	<i>n</i>	Std. Deviation	Std. Error Mean
Pre-core average	71.266	40	10.101	1.580
Post-core average	71.780	40	9.364	1.481
Pre-overall average	74.765	40	9.942	1.572
Post-overall average	77.589	40	7.105	1.123

Assessing Missing Data, Normality, and Outliers

Missing Data and Normality

All variables, (pre-and post-values for self-efficacy, social support variables, and attendance), except for grades, had considerable missing data. An analysis by the SPSS missing data program revealed that 58.62% of cases (participants) were missing at least one value on self-efficacy and the social support variables, with 18.90% of the total number of values missing. For the attendance variable (average days missed pre-and post), 34.09% of cases were missing at least one value, with 17.05% of the total number of values missing.

To address the high levels of missing data, Osborne (2013) recommended multiple imputation (MI) as a “vastly superior” technique compared to other traditional approaches to handling missingness. MI is a strategy that estimates, through complex statistical procedures, missing values by creating multiple data sets (typically five) from the same original data source (Osborne). In the current study, SPSS version 23 was used to run MI on the self-efficacy and social support data set, which created five imputed data sets beyond the original data set. A final

“pooled” data set was provided, which is the average estimates from the 5 imputed data sets. All data analyses were run using the pooled imputed data set. The same procedure was used on the attendance data set. MI was not used on the grades data set due to extremely low levels of missing data.

After the MI procedure, normality of variables was assessed for each data set. Using guidelines set forth by George and Mallory (2005), all major variables in the study, except for the pre-overall grades variable, were within the normal distribution limits. As such, no transformation of these variables was required. Nonparametric analyses were used when the pre-overall grades variable was assessed.

Outliers

All data was assessed for outliers (extreme scores) on the original data set (i.e., before using multiple imputation). The researcher assessed for univariate extreme scores by using the z transformation method outlined by Osborne (2013). Here, each value was converted to a z score, with a mean of 0 and standard deviation of 1. Scores (values) greater than 3 or -3 were flagged as possible extreme values and deleted from the data set if confirmed that they were an influential data point. For the self-efficacy and social support data set, the original n was 63; however, five cases with outliers were removed, leaving 58 usable data cases. For the attendance data set, two outliers met the 3/-3 threshold and were subsequently removed, leaving 44 usable data cases for analysis. For the grades data set, one outlier emerged from the analysis. However, the researcher determined that even though this one grade value was an extreme score, the student’s grades were legitimate and should be included in the analysis. A decision was made to run the main analyses for grades with the outlier retained and the outlier removed (see below).

Study Results

Research Questions 1 and 2

To address Research Questions 1 and 2, a repeated measures *t-test* using SPSS Version 23 was conducted to compare the mean differences of self-efficacy from pre to post intervention. Table 8 outlines the results of the repeated measures tests. Due to a notable amount of missing data, a multiple imputation analysis was conducted to address this issue. Table 8 shows results of repeated measures t-tests for all survey data. A significant difference was found between pre and post CASSS data in the subtest grouping, People in My School ($M_{diff} = 5.930$, $t = 3.122$, $df = 266205$, $p = .002$).

Table 8

Repeated Measures T-Test Results of Survey Data¹

	Mean	Std. Error Mean	<i>t</i>	<i>df</i> ²	Sig. (2-tailed)
Pair 1: SEQ-C	- .0535	1.850	-.029	7804	.977
Pair 2: CASSS Parents	2.279	1.523	1.496	15763	.135
Pair 3: CASSS Teachers	4.204	1.747	2.407	9833	.016
Pair 4: CASSS Classmates	.605	1.746	.347	.4770	.729
Pair 5: CASSS Close Friends	1.156	1.611	.718	5394	.473
Pair 6: CASSS People in School	5.930	1.900	3.122	266205	.002*
Pair 7: CASSS Importance	6.974	3.517	1.983	72573	.047

¹ All results are based on a pooled final data set using multiple imputation to address missing values. Bonferonni's adjustment was used to manage inflated Type I error resulting from 7 separate paired sample t-tests. This led to a new a priori alpha of .007.

² The degrees of freedom in paired-samples t-tests are higher (or in further cases lower) than expected, because the results are pooled from 5 imputed datasets. No corrections were applied in case of these analyses. Discussion on the application of possible corrections of the degrees of freedom for pooled estimates in small and large samples can be found in Barnard and Rubin (1999) and Van Ginkel (2010).

Research Question 3

To address Research Question 3, a repeated measures t-test was conducted to compare mean differences in average days missed from pre to post intervention. Average days missed were calculated by dividing the total number of class periods missed by the number of class periods in a day. Current 9th grade students' quarter 4 data was divided by 6, given that they had 6 class periods in 8th grade. Current 10 – 12th grade students' quarter 4 data was divided by 7, as

there are 7 periods to attend per day in 10 – 12th grade. In total, an original n of 46 was obtained; however, 2 outliers were removed, leaving the n for this data set at 44.

Table 9 shows the results of the repeated measures t -test for average days of school missed pre to post intervention. No significant difference was found ($M_{diff} = -.595$, $t = 3.122$, $df = 232$, $p = .295$).

Table 9

Repeated Measures T-Test Results for Attendance in Average Days Missed Pre and Post Intervention

	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Average Days Missed Pre/Post	-.595	3.503	.568	-1.049	232 ¹	.295

¹ The degrees of freedom in paired-samples t-tests are higher (or in further cases lower) than expected, because the results are pooled from 5 imputed datasets. No corrections were applied in case of these analyses. Discussion on the application of possible corrections of the degrees of freedom for pooled estimates in small and large samples can be found in Barnard and Rubin (1999) or Van Ginkel (2010).

Research Question 4

To address Research Question 4, a repeated measures t -test was conducted to compare the mean differences of percentages in grades from pre to post intervention, with pairs being pre/post core grade averages (math, science, English, social studies) and pre/post overall grade averages (all grades in all enrolled courses).

Outlier Retained. As noted above, an outlier was identified in the grades data. However, though this outlier was identified, student grades are objective, and the grade received is valid, though it may be outside of the normal distribution. Given this, both sets of results are reported—with the outlier removed and outlier retained. shows the results of the repeated measures t -tests with the outlier retained. Specifically, Table 10 shows that a significant

difference was found for pre/post overall averages in grades ($M_{diff} = -3.3104$, $t = -2.064$, $df = 40$, $p = .046$). No significance was observed for pre/post core averages, though the mean percentage increased.

Table 10

Repeated Measures T-Test Results of Pre/Post Core Averages and Pre/Post Overall Averages for Grades in Percentages with the Outlier Retained

		Mean	St. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pair 1	Pre/post-core average	-.5993	10.584	1.653	-.363	40	.719
Pair 2	Pre/post-overall average	-3.3104	10.271	1.604	-2.064	40	.046*

Outlier Removed. Table 11 shows the results of the repeated measures analysis with the outlier removed. Because the pre-overall grades variable did not meet the normality assumption for *t-tests*, an additional non-parametric test, the Related-Samples Wilcoxon Signed Rank Test, was used to compare this variable to the post-overall grade variable. The results of this nonparametric test are shown in Table 12. Table 11 shows that no significance was found for pre/post-core grade averages ($M_{diff} = -.514$, $t = -.304$, $df = 39$, $p = .763$) or pre/post-overall grade averages ($M_{diff} = -2.285$, $t = -1.802$, $df = 39$, $p = .079$). However, both mean grade percentages increased from pre to post measurements both when the outlier was removed and retained.

Table 11

Repeated Measures T-Test Results of Pre/Post Core Averages and Pre/Post Overall Averages for Grades in Percentages with the Outlier Removed

		Mean	St. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pair 1	Pre/post-core average	-.514	10.705	1.693	-.304	39	.763
Pair 2	Pre/post-overall average	-2.825	9.913	1.567	-1.802	39	.079

Table 12

Hypothesis Test Summary to Address Lack of Assumption of Normal Distribution for Pre-Overall Variable

Null Hypothesis	Test	Sig.	Decision
The median of differences between Pre-overall average and Post-overall average equals 0.	Related-Samples Wilcoxon Signed Rank Test	.166	Retain the null hypothesis.

Table 12 shows the results of the Related-Samples Wilcoxon Signed Rank Test used to address the issue of not meeting the assumption of normal distribution of the pre-overall variable. No significance was found.

Summary of Results

In sum, Hypothesis 1 was rejected, as no significant increase in self-reported self-efficacy as measured by the SEQ-C was found. In fact, little change was observed between mean scores from pre to post-intervention. Hypothesis 2 also was rejected, as decreases in self-reported social support were found using the CASSS, with a significant decrease on the subcategory of “People

in My School.” Hypothesis 3 was rejected, as significant improvement in attendance was not observed, though no significant results were obtained. Finally, hypothesis 4 was substantiated, in part, by a significant overall increase in grade percentages when an outlier was retained. However, no significant increases in grades for core or overall were found when the outlier was removed. No significant differences were found in core grades. Overall, a trend emerged in that both core and overall grades improved with the outlier retained and removed, though significance was not obtained when the outlier was removed.

CHAPTER V. DISCUSSION

The present study's purpose, statement of the problem, research questions, rationale for the study, and definition of terms were outlined in Chapter 1. Chapter 2 reviewed the literature related to the study's population, SSS curriculum, current academic client, MTSS, the role of school counselors, SEL, theoretical influences on SSS, and gaps in the SSS literature that are addressed by the study. Following this, Chapter 3 included the methodology for the study, including research questions and hypotheses, participants and the intervention, instrumentation, study design, data analysis, and delimitations. Next, Chapter 4 detailed the results of the present study related to changes in self-efficacy, social support, attendance, and grades. Finally, in the current chapter, I will provide a discussion and interpretation of the results, including limitations, recommendations for future directions, and implications for school counselors.

Hypotheses

The following section includes the hypotheses of the study. Following the restatement of each hypothesis is a brief discussion of whether or not it was supported by the results.

Hypothesis 1 (H1): The SSS curriculum will significantly increase self-reported self-efficacy scores among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Hypothesis 1 was rejected, as no significant increase was found in self-reported self-efficacy scores as measured by the SEQ-C. Further, little change was observed from pre to post time points on the SEQ-C, specifically a change of .053 points. A possible explanation for the lack of observed change could be due to the length of survey assessments with anecdotal fatigue effects observed by members of the research team. The SEQ-C and CASSS were administered

together and, on average, took approximately 10 to 20 minutes to complete. It is quite possible that student fatigue became a factor during the survey administration. Although there is debate about attention span and fatigue effects in the literature, researchers agree that variety of content is necessary to maintain attention (Wilson & Korn, 2007). The homogeneity of the content may have led to a lack of attention. Additionally, the SEQ-C, as well as the CASSS, was administered at the end of the booster session, nearing the end of the class period. This placement at the end of a class period may have created a barrier for students completing surveys, as their attention began to wane.

Hypothesis 2 (H2): The SSS curriculum will significantly increase self-reported social support among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Hypothesis 2 as a whole was rejected, as no significant increases were found on self-reported social support as measured by the CASSS on any sub-scale. Further, means generally decreased across the various sub-categories of the CASSS. Little change was observed for the sub-categories of classmates and close friends. However, decreases in pre-and post-test means were observed for parents, teachers, people in school, and overall importance of all sub-categories. Notably, there was a significant decrease in self-reported social support for people in school.

Further explanations and interpretations of these results will be explored in the following section; however, the overall decrease in social support reported by students, particularly by people in school, must be interpreted in light of the overall importance scale. Essentially, students reported that they felt social support was less important at follow-up than when taking

the survey in the beginning of the year. If students report that social support is not important, they may be more likely to report it as occurring less frequently. As previously mentioned, students taking the CASSS for the second time appeared to experience fatigue effects and were, anecdotally, disappointed to have to take the survey again. These factors could have had significant impacts on the results and, consequently, interpretation of results.

Hypothesis 3 (H3): The SSS curriculum will significantly decrease the number of days missed among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Hypothesis 3 was not supported, as a significant decrease in the number of days missed was not observed. The average number of days missed increased slightly but was not significant. When considering this result, there are a number of factors that could have contributed to the slight increase in days missed among students participating in the SSS intervention. For example, students' attendance rates included a variety of categories of absences, including excused, unexcused, medical appointments, school-sanctioned absences, absences for treatment, etc. A number of students also missed several sessions of SSS, ultimately impacting the degree to which the curriculum could influence attendance. SSS may not have been impactful for attendance, because attendance was a pre-existing issue, and criteria for placement in SSS, that became a barrier for adequate receipt of the intervention. Further, because SSS took place once per week for 5 weeks plus a booster session, it may not have been a sufficiently intensive intervention to impact attendance in a short period of time.

Hypothesis 4 (H4): The SSS curriculum will significantly increase grades among students identified as having a D or F in a core course and/or attendance rates less than 80 % and/or recommendation for placement by teachers or counselors in a high school in the Midwest.

Hypothesis 4 was partially supported, as a significant increase in overall grade percentages was observed with an outlier retained. Further, grades increased, though not significantly, for both core and overall percentages. This demonstrates that SSS may have had a positive impact on students' grades over the course of the quarter. However, it is also important to mention that students were also receiving academic supports from their respective MTSS academic study halls. Possible connections to the increase in grades through SSS is the use of the "7 Keys" worksheet to monitor weekly progress in study skills and explicit instruction related to test-taking strategies, memory strategies, managing test anxiety, and giving language to support self-efficacy (Brigman & Webb, 2010).

Taken together, Hypotheses 1 and 2, which were reliant on self-report, yielded unexpected results in that self-efficacy was not impacted, and perception of several types of social support and the importance of social support generally decreased. Considering the hypotheses that used more objective measures, hypothesis 3 was not supported, though little change in attendance was observed. Finally, Hypothesis 4 was partially supported, as a significant increase in overall grades was observed with an outlier retained, and means increased overall, though not significantly, for both core courses and overall grades percentages.

Interpretation of Results

Self-Efficacy

Although not explicitly taught as self-efficacy, the SSS curriculum included instruction designed to support the self-efficacy of students. Specifically, learned phrases like, "Don't doubt

your ability. Doubt your strategy. If what you are doing is not working, try something different,” capture the construct of self-efficacy—belief in one’s ability to perform a task or confidence in the ability to learn (Bandura, 1993; Brigman & Webb, 2010; Davis et al., 2014; Sungur & Gurgoren, 2009). Phrases such as these were recited weekly during SSS to the point where most students had them memorized.

Because self-efficacy is heavily implicated in positive academic and social-emotional outcomes and was inherent to SSS, the results based on the SEQ-C are surprising. However, as mentioned previously, a possible limitation is the anecdotal and observed fatigue effects of the survey and possible lack of buy-in from students., Sungur and Gungoren (2009) found that there are two important factors that impact a student’s self-efficacy—namely, whether a student believes she can complete the requirement and *why* the requirement is in place. Whereas students may have had belief in their abilities, they may not have understood the relevance or importance of self-efficacy or of the surveys themselves. As in the case of the CASSS importance scale, students may have not seen the relevance or purpose of the task at hand, resulting in data that may only speak to students’ questioning “so what?” or “why does this matter?”

Social Support

Social support is deeply embedded in the SSS curriculum. In fact, during the present study students were asked to rate social support each week using the “Looking Good, Feeling Good” progress monitoring worksheet, in alignment with the requirements of the curriculum. Students also could choose to set SMART goals around one of the top 5 categories listed on the worksheet, meaning some students chose to write goals to increase social support. However, results indicated either little change in social support or decreases in social support on the various categories of the CASSS between pre-and posttest. This contrasts with the results from

other studies using SSS to examine changes in social support or connectedness. Lemberger et al. (2015) and Lemberger and Clemens (2012) utilized the CASSS to measure social support among middle school students receiving SSS and found significant increases in social support from classmates; however, significant increases were not observed in the other CASSS categories. Though explanations for these results are not explicit in the research, a possible explanation could be fatigue effects or lack of perceived relevance for social support from adult figures. Given this, it may be worth considering a different measure for social support, perhaps even the social support category on the “Looking Good, Feeling Good” worksheet that students completed weekly.

Students that report higher levels of social support also tend to have higher grades, attendance rates, self-efficacy, and lower engagement in problem behaviors (Rosenfeld et al., 2000). Therefore, it is clear that social support is a mediator of student success; however, counselors and administrators may want to consider a variety of means of increasing social support as well as alternative means of assessing it among high school students.

Grades and Attendance

Achievement outcomes in the existing SSS literature are predominantly measured by standardized test scores, specifically the Florida Comprehensive Assessment Test’s (FCAT) math and reading sections (Brigman & Campbell, 2003; Brigman et al., 2007; Webb et al., 2005). Conversely, the present study analyzed grades and attendance as measures of achievement, a gap in the literature. The benefits of analyzing grades and attendance are to match the ASCA National Model’s definition of outcome data, to meet the needs of school’s criteria for assessing changes in achievement, to include objective measures, and to provide a more holistic picture of achievement rather than a snapshot through standardized testing.

Attendance. Although attendance has not been explored in relation to SSS, it is a common means of measuring student success. Students who are considered at-risk of dropping out often have low attendance rates, and teachers, administrators, counselors, and parents are continually looking for ways to increase attendance. As attendance is a major risk factor for dropping out, stakeholders consider the negative impacts of dropout, including lower lifetime earnings, higher incarceration rates, higher teen pregnancy rates, increased drug and alcohol abuse, and lower life expectancy (Bowers, 2010; Docker, 2012; Slavin, Karweit, & Madden, 1989).

Unlike self-efficacy and social support which are embedded in SSS, attendance is an outcome variable without clear ties to the content. Students are not provided explicit instruction related to the importance of attendance; however, as in the literature, it is expected that due to SEL interventions like SSS, students' attendance rates increase (Durlak et al., 2015; Weissberg et al., 2015). In the current study, attendance rates were not significantly different from pretest to posttest as a result of SSS. One possible explanation for this is that existing and ongoing absences from school translated to missed SSS sessions, thereby decreasing the potency of the intervention. Additionally, pre-attendance measures for current 9th graders were obtained from quarter 4 of 8th grade. This transition from 8th grade to 9th grade may have resulted in increased absences due to various factors such as increased rigor, social stressors, or the ability to drive to school.

Grades. As mentioned, achievement outcomes in the SSS literature have been limited to standardized test scores. Therefore, the present study fills a gap in the existing literature. Grades are perhaps the most common method of assessing a student's achievement in schools—used to place students in classes best suited to their needs and abilities and to evaluate fit for post-

secondary planning, among other things. Knowing the importance of grades, changes were analyzed from quarter 4 through quarter 1 with the content of SSS included through the first booster session. Notably, the means of overall and core grades increased from pre to post measurements. Further, overall grades significantly increased with the retention of an outlier. The outlier was included in one of the analyses, as the student's grades, though low, were legitimate. With the outlier removed, overall increase in grades was close to significance. This is perhaps the most encouraging finding—that an objective, outcome measure like grades may have been positively impacted by SSS.

Looking ahead, it will be important for school counselors to consider the maintenance of this increase as well as the effect of the full SSS curriculum, including all 4 booster sessions followed by the SSS group curriculum for targeted students. As school counselors are expected to provide data to support the work they do, this finding supports the efforts of school counselors' implementation of SSS among at-risk students.

Description of Sample

When reviewing the data, it is important to make note of the sample and reflect on the anecdotal observations that may have influenced the data. Importantly, students included in the study were varied among many characteristics—some were failing many classes with very low attendance and others were not meeting the inclusion criteria but were recommended to continue the intervention. Some had received SSS during the previous academic year. Some were new students, and some had been at the high school for several years. Whereas they all met criteria defined within the school as being “at-risk” and were placed within the MTSS social and emotional pathway, it is essential to note the variety of students who fall within this category—and that not all students fit the same mold.

Though many lessons were learned while working with this group of students, the most notable lessons have to do with interpersonal dynamics—“buy in” from the students and study hall teachers. The first day of SSS students were not introduced to the curriculum but rather met with the counselors and completed surveys. This was a first glimpse of what the classrooms were like, and some seemed to allow students to choose how to spend their time in study hall. Therefore, when asked to do something outside of the norm, like filling out long surveys, some students displayed considerable resistance. For example, some students asked continually why they were being asked to fill them out, and some students circled large portions of numbers or skipped sections of the surveys. Students were given the opportunity to assent, as no student was included in the study without assent; however, the general attitude was dislike of the surveys. Several counselors noted that students circled large portions of numbers on surveys, likely without reading the questions completely before circling the numbers.

Following the initial day of pre-questionnaires, counselors introduced ways to engage students and create a sense of “buy-in” using short games, icebreaker questions, and occasionally candy. Using such icebreakers or incentives is common practice in the present high school but needs mentioning. If counselors were to have used only scripted language and followed the SSS script exactly, students would not have engaged in the curriculum, and positive relationships may not have formed. However, the slight deviations from the curriculum must be mentioned as a limitation.

Overall, the students needed content variety, interpersonal finesse from counselors, differentiated instruction, and small incentives to maintain engagement—like many high school students but perhaps more so among this population (Newburger, 1942; Wilson & Korn, 2007). Small departures were made from the curriculum to maintain an atmosphere of engagement for

both students and counselors. Following the intervention, students were more likely to greet counselors in the hallways and reach out when help was needed. This is an example of an impactful positive outcome that was not captured in the quantitative data. These elusive impacts may be more exaggerated within at-risk populations due to potentially skewed results for self-report measures based on lack of “fit” with the population. In other words, the surveys may not have fully captured student perspectives of social support or self-efficacy if having to fill out a survey was a barrier for this population of students. The possible lack of fit of these surveys must be considered when planning for future interventions with this population, as surveys may not be the most valid measurement of the efficacy of SSS. Further suggestions for future directions will be explored below.

Limitations

Study Design

Reflecting on the limitations of the study, perhaps the most glaring is the lack of a control group. Students were not matched with a similar group of students from whom the intervention was withheld, due to the lack of practicality within the school. Further, within the school system, all students who met criteria received the intervention, and to withhold an evidence-based SEL curriculum from students would be unethical. Whereas it is not clear whether or not a control group would have altered the results of the study, it would have provided a further step to establishing a cause-effect relationship rather than pre-experimental design. Along these lines, random selection also was not used, again due to the needs of the school system. However, given that these limitations are common within school-based research, the design remains compatible with the reality of what research looks like within schools. Further, the external validity is high in relation to confounds to internal validity.

There also were limitations associated with the environment—namely, that students received multiple interventions throughout the span of the study. Because students for the study were placed in MTSS academic study halls as part of the school’s social and emotional pathway, they received academic support and progress monitoring from study hall teachers more intentionally than other study halls within the school. This additional intervention through study hall could have confounded the results, as its goals were similar to those of SSS. Although students did not receive explicit SEL instruction from study hall teachers, they did receive daily support compared with once per week support from counselors leading SSS. Therefore, the changes noted on the variables of self-efficacy, social support, grades, and attendance could have been impacted by this intervention and students’ perceptions of the MTSS study hall.

In addition, a notable confound is possible regression to the mean due to the extreme grades and attendance scores serving as criteria for placement within the study. However, the broad inclusion criteria may also include less extreme scores, as some students could have been recommended for placement by a counselor or teacher without attendance less than 80% or a D/F in a core course.

Additionally, a significant limitation in design is the number of students excluded from the study due to assent and consent procedures. Approximately 100 students received SSS, but consent and assent was received from only a portion of these students. The *n* size fluctuated between about 44 and 63 for attendance, grades, and survey measures. Due to missing data, multiple imputation procedures were needed to address missing data even among students who assented. Therefore, an argument could be made that the results may not be a true reflection of the target population. Importantly, when working as a school counselor, often consent and assent procedures to collect data on typical guidance practices for internal use are not necessary,

particularly when the intervention is considered part of the curriculum. This means that outside of the constraints of the university IRB for the purpose of the present study, the school counselors could analyze the complete data set, providing a more accurate picture of the effects of the intervention.

Further, when comparing the design of the present study to the designs in the existing SSS literature, the present study included only 1 booster session rather than the recommended 4 for sake of time (Brigman & Campbell, 2003; Brigman & Webb, 2010). In addition, some SSS researchers also included the small group curriculum in conjunction with the classroom curriculum, while the present study only included the classroom version (Brigman & Campbell, 2003; Ohrt et al., 2014). The school counselors utilized the SSS group curriculum as a targeted intervention for students identified through the SSS classroom curriculum as needing additional instruction, but this data was not included in the present study. Given this, perhaps the time-frame of the study was not long enough to capture the full effects of the SSS curriculum.

Participants

In addition to study design, there are notable limitations among the participant pool. Whereas the criteria for placement in the MTSS academic study hall and thus SSS included having a D or F in a core class and/or attendance below 80 %, it also included students who were recommended for the study hall by teachers or counselors. This means that some students did not necessarily meet the grades and/or attendance criteria. Additionally, some students had participated in the curriculum during the piloting last year, possibly impacting their responses to the pre and posttest measures. Although a repetition of the content may have positively impacted students' outcomes, it is difficult to assess if these students were impacted differently from the curriculum compared to those who completed it for the first time.

Anecdotally, counselors saw some returning students becoming positive leaders through their existing knowledge of SSS and some returning students becoming negative leaders influencing other students' ability to "join" with the counselors and the content. However, most students who had repeated SSS were placed in the small group SSS intervention last year, as well. This could mean that these students were resistant to making the changes necessary to phase out of MTSS academic study halls, which ultimately led to their placement in SSS again. These potentially resistant students may have influenced the data, as SSS may not have had a significant impact during last year's interventions. Looking ahead, it is likely that repeating students identified as being potential barriers to other students will no longer be placed in SSS after having completed both the classroom and small group intervention.

Aside from students recommended for placement in MTSS academic study halls by teachers or counselors, some repeating students were placed by their own choice, advocating for themselves based on positive experiences in the previous academic year. Ultimately, this shows that the participant pool was varied both in academic criteria and in social-emotional factors of students. Although a varied pool of participants may be beneficial for group dynamics, it does present a potential confound and limitation for the present study.

Because the population of the study was varied in terms of academic and social-emotional factors, there were also variances in attendance. Knowing attendance is an area of concern for at-risk populations, predictably, it became a limitation for the present study. As previously mentioned, students who were absent from school were also likely absent during the intervention. Therefore, the efficacy of SSS is limited by student attendance. A possible means of controlling for this would be to remove all students who missed more than 1 session; however, in doing so, the participant pool could be significantly decreased.

Future Directions

Looking ahead, there are many lessons to be learned from the present study that can be applied to future interventions and research, particularly in methodology and data analysis.

Whereas schools as sites for research present unique challenges, the importance of continuing to conduct research in school settings to support the work of school counselors and provide a basis of data-driven decision-making cannot be overstated (Brigman et al., 2007; Ohrt et al., 2014).

Reflecting on the results and limitations of the present study, several suggestions for subsequent research on MTSS interventions have become clear and are listed below.

1. *All data should be included in the data analysis.* Consent and assent procedures were a limitation for the present study; however, school counselors have access to all data regardless of consent and assent procedures due to the fact that the intervention was a part of the school's curriculum. As English teachers do not need consent or assent to give exams, school counselors often do not need consent or assent to collect data regarding variables like self-efficacy and social support. By including all data in a future study within the school, school counselors will have more accurate and valid results. Further, most studies in the SSS literature had n sizes between 200-500 among the general education population (Brigman & Campbell, 2003; Ohrt et al., 2014; Mariani et al., 2015). Increasing the n size by including all data could make the data set more comparable to those in the existing literature.

2. *Fewer, shorter, and/or different surveys should be administered.* Although the SEQ-C and CASSS are well-established in the literature, they may not be best suited for administration among this population in immediate succession of one another (Lemberger & Clemens, 2012; Lemberger et al., 2015; Malecki et al., 2000). The SEQ-C has 24 items, and the CASSS has 60 items plus 60 importance scale items. Most students took between 10-20 minutes to complete the

surveys, which felt too long among this population. One possible suggestion to remedy this would be to contact the author's of the CASSS to inquire about administering only certain subscales of the questionnaire—like the “People in School,” “My Teachers,” “My Classmates,” and the importance sections. This could significantly shorten the survey while still tapping into the most salient categories for social support in schools. Alternatively, counselors could analyze the data from the category of social support on the “Looking Good, Feeling Good” worksheet, as it is a weekly measure already embedded in SSS for progress monitoring. This way, students may feel less fatigued by additional surveys and questionnaires.

3. *A new, targeted questionnaire should be administered.* Given the unexpected results of the questionnaires in the present study, it may be worth considering a new questionnaire for use. A relatively new survey with high internal consistency has been developed to specifically measure outcomes of SSS, the Student Engagement in School Success Skills Survey (SESSS) (Carey, Brigman, Webb, Villares, & Harrington, 2013; Mariani et al., 2015). This questionnaire is comprised of 33 items and has language that is matched to SSS, measuring cognitive engagement in the curriculum through answers to questions like, “I listened to music so that I would feel less stressed.” Students then respond with frequencies of such behaviors—not at all, once, two times, or three of more times (Carey et al., 2013). Because this questionnaire uses the language of SSS, it may be more likely to capture the SEL outcomes, as students could see clear ties between SSS and the surveys. The SESSS was not utilized in the present study, as its purpose is to measure engagement in the curriculum itself rather than specific outcomes such as self-efficacy or social support. Additionally, outside of the time-frame of the present study, students completed *Kahoot!* quizzes during a booster session, which seemed to much better suit

the group of students—providing an interactive, fast-paced, competitive assessment. This is another possible means of gathering data in the future.

4. *Revise the research design and analysis to include multiple years' data.* Because a control group is not practical within the school of interest, a means of addressing one study design limitation could be to compare grades and attendance data from year to year. Grades and attendance data could be pulled from last year's piloting to compare to grades and attendance data from this year. Keeping a record of the changes in grades and attendance, controlling for other variables, could help to monitor the efficacy of SSS from year to year, creating either an argument to continue or discontinue this intervention using objective outcome data rather than self-report.

5. *Extend the time frame of the study to include all booster sessions and SSS groups.* The data may have been impacted by the shortened duration of SSS for the purposes of the study, as only 1 booster session was captured in the data. Looking ahead, the school counselors could collect grades and attendance measures after the first booster session (about the span of 1 quarter) as well as after the last booster session to capture multiple time points. For example, counselors could gather data from quarters 1, 2, and 3 to analyze the effects of the curriculum as well as maintenance. By including multiple time points, the data may provide a more accurate picture of the impact of SSS as it was designed to be administered. Further, counselors could analyze grades and attendance data through the end of the targeted small group SSS curriculum with students identified as needing additional interventions. Through this, counselors could gain insight and assess the necessary duration of the intervention needed for desired outcomes to be observed.

6. *Teachers or counselors should provide data.* Measures like teacher reports of behavior have been well-supported in the literature (Brigman & Campbell, 2003). In fact, Webb et al. (2005) found a notable increase in positive student behaviors using the School Social Behavior Scales (SSBS), a 32-item questionnaire administered to teachers of students participating in SSS. Whereas the SSBS is a quantitative measure, additional qualitative reports by teachers and counselors could help to supplement student reports and objective measures of grades and attendance. Anecdotally, teachers and counselors observed notable positive behavioral changes during the present study that students were often unable or unwilling to identify themselves. A mixed-methods design like this may be best suited to encapsulate the effects of the curriculum from multiple perspectives.

7. *Build in an introduction session before beginning the SSS curriculum.* Because students were asked to fill out surveys and dive into the material immediately during the first day of the curriculum, some students seemed to be left with a negative first impression. In retrospect, counselor-researchers should come to the study halls for an introductory session to introduce themselves, play an icebreaker game, and talk about what students should expect from starting SSS. Further, counselors could provide a large calendar for each group of students to keep in the study hall as a visual reminder of when the counselors will come to class, as many students seemed surprised when counselors entered each week to administer SSS.

8. *Analyze repeating students' data separately.* Because it is likely that students will repeat the curriculum due to placement in MTSS academic study halls, counselors should analyze the data from these students separately to note the difference between repeating students and students who are new to the curriculum. A comparison could be made between the potency of the intervention for first-time students and repeating students. If all student data could be

accessed in each of the targeted study halls, the n would be sizable enough to analyze these student groups separately.

9. *Analyze 9th grade students' data separately.* Due to the timeframe of the present study, current 9th grade students' pre-intervention data was pulled from quarter 4 of 8th grade. This presents an incompatibility with current courses, scheduling, and academic rigor. Moving forward, 9th grade students should be analyzed separately to ensure consistency among 10-12th grade data. Otherwise, the intervention should not begin until the end of quarter 1 for pre-intervention data. However, this poses an issue in addressing student needs immediately at the beginning of the school year. While collecting pre-intervention data at the end of quarter 1 is best for research purposes, it is not in the best interest of students.

10. *Analyze differences between students receiving only the SSS classroom curriculum and students receiving both the classroom and group curriculum.* To further examine the efficacy of SSS classroom vs. SSS group curriculum, grades, attendance, and questionnaires could be compared among students receiving only the classroom intervention and students receiving both interventions. This could clarify the need for and efficacy of solely the classroom curriculum or classroom combined with group curriculum. Additionally, it could help clarify the amount of time students need with the curriculum for changes in outcome variables to be observed. If few changes are seen among students receiving both interventions, counselors can make data-driven decisions about how to proceed.

11. *Counselors should encourage intentional collaboration with teachers.* The SSS classroom curriculum can be administered by teachers; however, counselors often administer the curriculum, as well. If teachers were encouraged to partner with the counselors in leading the lessons, teachers would likely be able to infuse and reinforce the lessons of SSS into daily study

hall instruction, consistently presenting students with the material rather than solely once per week from counselors. Some study hall teachers helped to encourage SSS practices during the week; however, if an expectation was set for teachers to co-facilitate SSS, students and teachers would likely have more “buy in” to the benefit of all students. In fact, future directions in the literature often point to the need for teacher-counselor collaboration in the delivery of SSS (Brigman et al., 2007).

Implications for School Counselors

Reflecting on the implications of the present study for school counselors, there are several key points that can potentially impact and bolster the work of school counselors. The ASCA National Model (2012) provides a framework of expectations for school counselors to build and maintain programming that positively impacts all students. Through the use of data, collaboration with school personnel, and accountability to serve all students, school counselors can demonstrate their impact and worth within schools.

1. *School counselors should conduct research in schools.* Although research is time-consuming, there is a call for school counselors to provide data to support and shape their programming, and ultimately, to demonstrate their worth within schools. Action research in particular could be an effective model for school counselors, as it could provide a means of meeting an immediate need while also answering key questions regarding the efficacy of interventions. By conducting the present research study, school counselors are able to learn about what works and what needs development in terms of using self-report and objective data as well as the general efficacy of the SSS curriculum using a pre-experimental study design.

2. *School counselors should publish results.* It is widely known that school counselors implement a large variety of interventions for students, and ASCA calls for school counselors to

use data to inform decision-making (2012). Given that school counselors are asked to use data to monitor the efficacy of programming, this means that counselors are in possession of useful data. However, they often do not publish findings. If counselors were able to partner with area researchers, graduate students, or university faculty members, they may receive the support they need to publish findings to the benefit of all counselors. It is common practice for counselors to research interventions in the counseling literature before implementation; however, they also need to contribute by publishing their own research.

3. *School counselors should tie objective measures like grades and attendance to interventions.* The ASCA National Model calls for school counselors to monitor three types of data through the delivery of services—process, perception, and outcome data. Outcome data is specified as grades and attendance—namely, the way in which the counseling program impacts student achievement (2012). Outcome data is objective and does not rely on self-report. Though self-reports provide essential data, they also contain potential bias, and school counselors must strive to meet ASCA’s standards by also tying their work to outcome data. The present study was able to do this by including measures of grades and attendance alongside self-report measures like the CASSS and SEQ-C. Though little change was observed in attendance, increases in grades were observed.

4. *School counselors must show their efficacy in schools.* Much of the literature suggests that the school counseling profession is at risk if counselors are unable to provide data to support the work they do in schools (Brigman & Campbell, 2003; Brigman et al., 2007; Webb et al., 2005). Counselors are being asked to show how students are different as a results of the work they do—through process, perception, and outcome data practices, as mentioned above. Therefore, school counselors must use sound data collection practices to monitor the effects of

interventions not only as best practices but also as job security. School counselors from the present study can highlight the changes in grades to bolster their work and consider future directions to address the unexpected results for the self-report data on self-efficacy and social support.

5. School counselors must advocate for school-wide SEL and tie it to outcome data.

Knowing the importance of explicit instruction related to SEL and its positive impacts on achievement measures, school counselors must advocate for the inclusion of SEL curriculum at all grade levels, not solely at elementary or middle schools. Research shows that students who receive SEL instruction have higher grades, increased self-efficacy, attendance, empathy, interpersonal skills, and reduced risk-taking behaviors (Durlak et al., 2011; Farrington et al., 2012; Weissberg et al., 2015; Zins et al., 2004). Therefore, it is imperative that school counselors implement school-wide SEL interventions for all students and quantify the results by measuring outcomes like changes in grades and attendance, as in the present study SSS was tied to changes in grades and attendance. Though little change was observed in attendance, mean percentages for core and overall grades increased.

6. School counselors must collaborate with teachers, administrators, and MTSS professionals for sufficient delivery of SEL interventions. Just as research has shown that SEL is highly implicated in student success, it has also shown that school-wide implementation and buy-in from teachers and administrators is essential. This school-wide implementation helps to create a culture of support and consistent exposure to SEL (Durlak et al., 2015). School counselors are simply not able to lead all efforts for SEL and must collaborate with all school personnel. In the present study, teachers were in the rooms during the SSS instruction but had varying levels of involvement. The intervention was isolated to the once per week lessons and led by counselors,

who are not in classrooms daily like teachers. Looking ahead, it would be helpful to implement this curriculum with additional study halls and have teachers assist with its delivery as a way to create effective collaboration between teachers, administrators, and MTSS professionals.

7. School counselors must identify and intervene with at-risk students. As part of the ASCA National Model's management and accountability domains, school counselors are expected to implement interventions to close achievement, opportunity, and attainment gaps (ASCA, 2012). School counselors use data to identify these students and intervene using the "Closing the Gap Action Plan" template provided by ASCA (2012). This provides an opportunity for partnerships with MTSS professionals, administrators, and teachers in the identification of these students as well as the process of intervening. During the present study, students were identified by the MTSS professional through a partnership with counselors, and students were placed in the intervention as a means of "closing the gap." Although results were mixed, a gap was closed in that core and overall grades increased. Overall, it is essential that at-risk students do not fall through the cracks due to a lack of detection and intervention by school counselors.

Conclusion

The current climate of education and the needs of at-risk students can be, in part, ameliorated by SEL interventions. In particular, SSS has been shown to be well-supported in the literature to bolster both achievement and social-emotional outcomes as measured by standardized test scores, teacher reports, self-reported social support, self-efficacy, and other pro-social behaviors (Brigman & Campbell, 2003; Brigman & Webb, 2010; Lemberger & Clemens, 2012; Lemberger et al., 2015; Mariani et al., 2015; Ohrt et al., 2015; Villares et al., 2011; Webb

et al., 2007). School counselors play an essential role in implementing curriculum like SSS among all students, particularly at-risk students as part of MTSS.

Whereas the results of the present study were mixed and influenced by notable limitations, the literature remains clear that SEL is essential to student success and holistic learning (Durlak et al., 2011; Weissberg et al., 2015; Zins et al., 2004). Further, SSS is a highly-evidence based curriculum with overwhelming evidence to support its use (Brigman & Campbell, 2003; Brigman & Webb, 2010; Ohrt et al., 2015; Webb et al., 2007). Looking ahead, school counselors, teachers, and administrators must continue to contemplate ways in which to adequately infuse tiered SEL interventions to meet the needs of all students and continue to devise innovative ways to research and assess their effectiveness.

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APPENDIX A. PASSIVE PARENTAL CONSENT

Dear Parent or Guardian:

Your student, _____, has been placed in an academic study hall and will be receiving the Student Success Skills classroom curriculum, which begins the week of August 22nd. Each lesson will be presented by the school counselors with one lesson per week for a period of 5 weeks followed by one booster session taking place one month following the last lesson. Students will be asked to complete surveys related to self-efficacy (belief in ability to succeed) and social support as part of a research study through NDSU's Counselor Education student, Katie Harmelink. Additionally, students will be asked for access to grades and attendance to track the effectiveness of the intervention. All student records and surveys will be kept anonymous and confidential.

What is the purpose of the study? The purpose of the Student Success Skills curriculum is to help students build and improve certain critical learning, social and self-management skills. Everyone can improve in these important areas. Participation does not indicate a deficiency. This study is being conducted to track the effectiveness of the Student Success Skills curriculum in academic study halls.

This goal of the curriculum is developing the skills considered necessary to be successful in school and with peer relations. The curriculum focuses on two important areas:

1. How to make schoolwork easier and more interesting by developing goal setting, organization and memory skills, and how to increase/maintain motivation by monitoring academic progress.
2. How to develop life skills, which include social and teamwork skills and how to manage conflicts, stress, and anger.

What will my child be asked to do? Students will be asked to complete two questionnaires (self-efficacy and social support) to help track the effectiveness of the intervention. Each survey should take between 5-10 minutes to complete. Additionally, students will be asked for permission to track changes in grades and attendance before and after the intervention. Students will have a choice as to whether or not they wish to have these records used for research purposes. Students who choose not to have the information used will not be penalized in any way. By monitoring these changes, the school counselors can help decide whether or not the intervention is beneficial to students.

What are the benefits or risks of participating? It is expected that participating in the curriculum, which focuses on the skills needed for academic and social success, will lead to better academic performance and greater skill in working cooperatively with peers. These are skills everyone can improve and are important over our entire life. There are no foreseeable risks of participation.

Does my child have to participate in the study? Your child will participate in the Student Success Skills curriculum as part of their academic study hall, and the school counselors will collect the survey, attendance, and grades data for internal use. However, your child is not required to release their surveys, grades, or attendance information to be used in the NDSU study. If you or your child decides NOT to allow access to data, data will not be released to NDSU. You have an option below to opt your child out of the data collection.

What are my child's rights as a research participant? Your child has rights as a participant in research. If you have questions about these rights, or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program, by

- Telephone: 701.231.8995 (local) or 855.800.6717 (toll-free)
- Email: ndsuirb@ndsuedu
- Mail: NDSU HRPP Office, 1735 NDSU Research Park Dr., NDSU Dept 4000, PO Box 6050 Fargo, ND 58108-6050

The role of the IRB is to see that your child's rights are protected in this research; more information about your child's rights as a research participant can be found at: www.ndsu.edu/research/integrity_compliance/irb/.

If you have questions about the research study, you can contact the researcher, Katie Harmelink, or the WFHS school counselors at 701-356-2050. Additionally, Katie's advisor, Dr. Todd Lewis, can be reached at 701-231-7306.

Sincerely,

Counseling Department

I **DO NOT** give permission for my student to participate in the study of results of the Student Success Skills classroom curriculum.

(Parent/Guardian signature & date)

APPENDIX B. STUDENT ASSENT DOCUMENT

NDSU
North Dakota State University
School of Education, Counselor Education
SGC Building
1919 N. University Dr., Suite C
Dept. 2625
PO Box 6050
Fargo, ND 58108
701-231-7202

Student Success Skills Study

Invitation:

- You are invited to take part in a research study to teach people about the effects of the Student Success Skills (SSS) curriculum.
- The study is being done by Katie Harmelink from NDSU.

What will the research involve? If you agree to take part in the research:

- You will be asked to fill out questionnaires before beginning SSS and again following the completion of SSS. The questionnaires are related to self-efficacy (belief in the ability to do something) and social support. These questionnaires will be kept confidential and stored in a secure location in the counseling office.
- You will be asked for permission to access grades and attendance records to track changes prior to SSS and following the completion of SSS. These records will be kept confidential, and no identifying information will be included in the write-up of the study results.
- Your participation in SSS will not be altered by collecting questionnaires or obtaining grades and attendance information.
- If you decide that you do not want to have your questionnaires or grades and attendance used for research, you will not be penalized in any way.

What are any risks or benefits for me?

- We don't believe you will experience any risks or discomforts from being in the study.
- You may benefit from being in the study by developing new skills and mindsets that may be helpful for you both personally and academically. By filling out the questionnaires, you may learn about yourself.
- There may also be benefits to others. The researchers will use what they learn from this study to develop future educational programs for youth.

Do I have to take part in the research?

- It is still your choice whether or not you want to participate in the research.
- Even if you say yes now, you can change your mind later, and stop participating.
- Your decision will have no affect (bad or good) on your grade in school.

Who will see my answers and information?

- We will make every effort to keep your information private; only the people helping us with the research will know your answers or see your information.
- Your information will be combined with information from other people in the study. When we write about the study, we will write only about this combined information, and no one will be able to know what your information is.
- If you want to look at the information we collect from you, just let us know, and we will provide it to you. But, you cannot look at information from others in the research.

What if I have questions?

- You should ask any questions you have right now, before deciding whether or not to be a part of the research.
- If you or your parent(s) or guardian(s) have questions later, contact Katie Harmelink at 701-356-2050 or Dr. Todd Lewis at 701-231-7306.

What are my rights?

- You have rights as a research participant.
- For questions about your rights, or to tell someone else about a problem with this research, you can contact the NDSU Human Research Protection Program at (701) 231-8995, (855) 800-6717 (toll-free) or ndsu.irb@ndsu.edu.
- The IRB is responsible to make sure that your rights and safety are protected in this research. More information is available at: www.ndsu.edu/research/integrity_compliance/irb/.

After reading this, would you like to take part in the research?

Yes, I would like to participate.

No, I would not like to participate.

Your Signature

Printed Name

Date

APPENDIX C. STUDENT SURVEYS COVER SHEET

STUDENT SURVEYS COVER SHEET

NAME _____

GRADE _____

GENDER _____