A Feasibility Study Investigating the Implementation of Social-Emotional Learning Programming in a Clinical Day Treatment Program

Laura M. Findlay
University of Massachusetts Amherst

Follow this and additional works at: https://scholarworks.umass.edu/dissertations_2

Part of the Educational Psychology Commons

Recommended Citation

This Open Access Dissertation is brought to you for free and open access by the Dissertations and Theses at ScholarWorks@UMass Amherst. It has been accepted for inclusion in Doctoral Dissertations by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.
A Feasibility Study Investigating the Implementation of Social-Emotional Learning Programming in a Clinical Day Treatment Program

A Dissertation Presented

by

LAURA M. FINDLAY

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

SEPTEMBER 2023

College of Education
University of Massachusetts Amherst
School Psychology Program
A Feasibility Study Investigating the Implementation of Social-Emotional Learning Programming in a Clinical Day Treatment Program

A Dissertation Presented

By

LAURA M. FINDLAY

Approved as to style and content by:

__________________________
Amanda M. Marcotte, Chair

__________________________
Sarah A. Fefer, Member

__________________________
Mary Lynn Boscardin, Member

__________________________
Betsy McEneaney, Member

__________________________
Shane Hammond
Associate Dean for Student Success
College of Education
DEDICATIONS

For my wife, Lisa, you’re my best friend and dearest love. You’ve been with me every step of this journey and without you I would have lost perspective long ago. You amaze me every day.

For my mom and dad, your unconditional love, hard work, many sacrifices, and unwavering belief in me have been my source of strength, without which I could never have embarked on this journey.

In loving memory of my grandparents, who encouraged me in all of my pursuits and whose love will always remain in my heart.

Finally, for all the educators who teach with positivity, passion, and patience and who inspire us to reach for the stars. Your work truly makes a difference.
ACKNOWLEDGMENTS

I am truly grateful for the support and trust of so many who have believed in me. To my dissertation committee, Dr. Sarah Fefer, Dr. Mary Lynn Boscardin, Dr. Betsy McEneaney, and my chair, Dr. Amanda Marcotte, thank you for all of your support and guidance along the way. Our collective conversations filled me with inspiration and confidence and encouraged me to dream. Amanda, your encouragement to adjust my focus and utilize my practical experiences resulted in this study and strengthened my work in schools. I’m very appreciative that not just once, but twice, you supported me in pursuing a study that was outside of your focus areas. Mary Lynn, your mentorship and PATHWAYS program were a lifeline that allowed me to complete this work. I’m also grateful for all of the continued support of Dr. Sara Whitcomb, whose positivity and encouragement were pivotal in my growth. I’d also like to give a heartfelt thank you to Dr. Jane Riley, who has continually believed in me and whose practice as a school psychologist I hope to emulate. There have also been many people from UMass who have made a lasting impact on me, especially Dr. John Hintze, my cohort of Erik, Anna, and Cindy, and my bonus cohort of April and Kimberly.

I am especially thankful for the passion, dedication, and creativity of each and every SEL champion at the site of this study, including the leadership team, who accomplished this work alongside me. A special thank you to the director of the psychological and behavioral consultation department and the special education director who supported me and allowed our work to be utilized for this study. From the bottom of my heart, I’d like to thank my school colleagues at my primary site, you welcomed me with open arms and your thoughtfulness, encouragement, and support were invaluable. Finally, my sincere thanks to my psychology
supervisors and colleagues for helping me grow and imparting me with your professional
expertise, domain knowledge, and your unparalleled focused approach to excellence.

Most importantly, I would like to express my heartfelt appreciation to my family, without
whom I could not have completed this work. There truly are no words to express the depth of my
gratitude and love for all of you.
ABSTRACT

A FEASIBILITY STUDY INVESTIGATING THE IMPLEMENTATION OF SOCIAL-EMOTIONAL LEARNING PROGRAMMING IN A CLINICAL DAY TREATMENT PROGRAM

SEPTEMBER 2023

LAURA M. FINDLAY, B.S., ALFRED UNIVERSITY
M.S., ALFRED UNIVERSITY
PH.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor Amanda M. Marcotte

Students with emotional-behavioral disorders are particularly vulnerable to adverse mental health consequences as they often experience less school success than any other group of students, with or without disability (Beaudoin et al., 2008; Wagner et al., 2005). Existing research indicates that students who participated in social-emotional learning programs, such as Second Step, demonstrated significant improvement with social and emotional skills, behavior, and academic performance, than students who did not (Durlak et al., 2011). However, less is known about the science related to systems-level implementation to support applied practices (Fixsen et al., 2005), and little is known about implementing SEL programs in alternative settings that support students with social and emotional difficulties. This retrospective case study examined the feasibility of implementing the Second Step curriculum, and a social-emotional competence assessment system, the Devereux Student Strengths Assessment (DESSA), within a clinical day treatment program. This study focused on the implementation process to evaluate if and how Second Step could work in this alternative setting. This study used thematic analysis within a mixed-methods explanatory sequential design, comprised of two phases including the collection and analysis of
quantitative data and qualitative data. Lessons learned from this case study will be influential for determining the best ways to strengthen the implementation process of social-emotional learning interventions, particularly in clinical day treatment settings.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ACKNOWLEDGMENTS</th>
<th>iv</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xiii</td>
</tr>
</tbody>
</table>

## CHAPTER

1. INTRODUCTION, BACKGROUND, AND PURPOSE

Social Emotional Learning: An Important Solution ........................................... 3
   Strategies & Practices ................................................................. 5
   Multitiered Systems of Support ..................................................... 6
   Positive Outcomes of SEL Interventions ............................................. 7
   Evidence-Based Instruction: Second Step Social-Emotional Learning
      Curriculum ......................................................................................... 8
      Students with Emotional Behavioral Disorders ............................... 9
   Assessment: Screening & Progress Monitoring ........................................ 10
   The Devereux Student Strengths Assessment System .................................. 12
      Students with Emotional Behavioral Disorders .................................. 14
   Implementation Science ........................................................................ 15
   Feasibility Research ........................................................................... 17
      Social Validity .................................................................................. 18
      Practicality ....................................................................................... 19
      Adaptability ...................................................................................... 20
      Implementation .................................................................................. 20
      Effectiveness ...................................................................................... 21
   Present Study ......................................................................................... 21
   Research Questions ............................................................................... 23
      Research Question 1: Second Step Social-Emotional Learning Curriculum .. 23
      Research Question 2: Devereux Student Strengths Assessment System ........ 27

2. REVIEW OF THE LITERATURE

   An Introduction to Social-Emotional Learning ........................................... 30
   SEL Framework by Elias and colleagues (1997) ........................................... 36
   A Developmental- Contextual Framework by Jones & Bouffard (2012) ........ 39
   The CASEL Framework of Social-Emotional Learning (2020) .......................... 43
   Summary ................................................................................................. 47
   The Purpose of Theory ........................................................................... 48
   Theoretical Foundations of Social-Emotional Learning ............................... 50
      Behaviorism ......................................................................................... 52
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications of Behaviorism on Instruction and Social-Emotional Learning Programming</td>
<td>55</td>
</tr>
<tr>
<td>Cognitive and Developmental Theories</td>
<td>57</td>
</tr>
<tr>
<td>Bandura’s Social Learning Theory &amp; Social Cognitive Theory</td>
<td>58</td>
</tr>
<tr>
<td>Applications of Social Learning Theory and Social Cognitive Theory on Instruction and Social-Emotional Learning</td>
<td>59</td>
</tr>
<tr>
<td>Piaget’s Theory of Cognitive Development</td>
<td>62</td>
</tr>
<tr>
<td>Applications of Development Theories on Instruction and Social-Emotional Learning</td>
<td>64</td>
</tr>
<tr>
<td>Vygotsky’s Sociocultural Theory</td>
<td>67</td>
</tr>
<tr>
<td>Applications of Sociocultural Theory on Instruction and Social-Emotional Learning</td>
<td>69</td>
</tr>
<tr>
<td>Bruner’s Developmental Theory of Cognitive Growth</td>
<td>71</td>
</tr>
<tr>
<td>Applications of Bruner’s Theory on Instruction and Social-Emotional Learning</td>
<td>73</td>
</tr>
<tr>
<td>Bronfenbrenner’s Ecological Systems Theory</td>
<td>73</td>
</tr>
<tr>
<td>Applications of Ecological Systems Theory on Instruction and Social-Emotional Learning</td>
<td>75</td>
</tr>
<tr>
<td>Information Processing Theory</td>
<td>76</td>
</tr>
<tr>
<td>Applications of Information Processing Theory on Instruction and Social-Emotional Learning</td>
<td>77</td>
</tr>
<tr>
<td>Theories of Emotion and Emotional Development</td>
<td>78</td>
</tr>
<tr>
<td>Applications of Theories of Emotion for Instruction and Social-Emotional Learning</td>
<td>80</td>
</tr>
<tr>
<td>Summary</td>
<td>81</td>
</tr>
<tr>
<td>Nontraditional School Settings &amp; Serving Students with Disabilities</td>
<td>82</td>
</tr>
<tr>
<td>Nontraditional School Settings</td>
<td>82</td>
</tr>
<tr>
<td>Emotional Disturbance: Definition, Prevalence &amp; Misconceptions</td>
<td>88</td>
</tr>
<tr>
<td>Outcomes for Students with Emotional Behavioral Disorders</td>
<td>91</td>
</tr>
<tr>
<td>General-Education-Classroom Experience</td>
<td>92</td>
</tr>
<tr>
<td>Summary</td>
<td>93</td>
</tr>
</tbody>
</table>

3. METHODOLOGY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Context and Background</td>
<td>96</td>
</tr>
<tr>
<td>Setting and Participants</td>
<td>97</td>
</tr>
<tr>
<td>Study Participants</td>
<td>98</td>
</tr>
<tr>
<td>Positionality Statement</td>
<td>99</td>
</tr>
<tr>
<td>Procedures: Exploration and Adoption</td>
<td>100</td>
</tr>
<tr>
<td>Curriculum Selection</td>
<td>101</td>
</tr>
<tr>
<td>Intervention: Second Step Social-Emotional Learning Curriculum</td>
<td>102</td>
</tr>
<tr>
<td>Assessment Selection</td>
<td>103</td>
</tr>
<tr>
<td>Assessment: Devereux Student Strength Assessment System</td>
<td>103</td>
</tr>
<tr>
<td>Procedures: Program Installation</td>
<td>105</td>
</tr>
<tr>
<td>Approach to Program Design and Implementation</td>
<td>105</td>
</tr>
<tr>
<td>General Procedures</td>
<td>106</td>
</tr>
<tr>
<td>Roles and Responsibilities of Interventionists</td>
<td>106</td>
</tr>
</tbody>
</table>
APPENDICES

A. Outcome Measure: Formative Assessment ..................................................167
B. Outcome Measure: Summative Assessment ..................................................169
C. Outcome Measure: Focus Group .................................................................173
D. Outcome Measure: Weekly Self-Reflection ...................................................175
E. Outcome Measure: Observation Form ..........................................................177
F. Outcome Measure: Second Step Knowledge Assessment .............................180
G. Outcome Measure: Devereux Student Strength Assessment .........................182
H. Intervention Materials .................................................................................186
REFERENCES ..................................................................................................190
## LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Study Participants</td>
<td>116</td>
</tr>
<tr>
<td>3.2 Assessment Tools</td>
<td>117</td>
</tr>
<tr>
<td>4.1 Foundational Components of Social Emotional Learning Programming</td>
<td>138</td>
</tr>
<tr>
<td>4.2 Adaptability of the Second Step Curriculum</td>
<td>139</td>
</tr>
<tr>
<td>4.3 Implementation of the Second Step Curriculum</td>
<td>140</td>
</tr>
<tr>
<td>4.4 Effectiveness: Second Step Summative Knowledge Assessment</td>
<td>141</td>
</tr>
<tr>
<td>4.5 Effectiveness: DESSA T-Scores</td>
<td>142</td>
</tr>
<tr>
<td>4.6 Practicality: DESSA T-Scores</td>
<td>143</td>
</tr>
<tr>
<td>4.7 Practicality: Percentage of Students per Scale Description on DESSA</td>
<td>143</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Explanatory Sequential Mixed Method Design</td>
<td>117</td>
</tr>
<tr>
<td>3.2 Flowchart of the Procedure for Implementing a Modified Explanatory Sequential Mixed Method Design</td>
<td>118</td>
</tr>
<tr>
<td>4.1 Second Step: Themes of Social Validity</td>
<td>144</td>
</tr>
<tr>
<td>4.2 Second Step: Themes of Practicality</td>
<td>145</td>
</tr>
<tr>
<td>4.3 Second Step: Themes of Adaptability</td>
<td>146</td>
</tr>
<tr>
<td>4.4 Second Step: Themes of Implementation</td>
<td>147</td>
</tr>
<tr>
<td>4.5 Student Growth: DESSA Scores</td>
<td>148</td>
</tr>
<tr>
<td>4.6 Second Step: Themes of Effectiveness</td>
<td>149</td>
</tr>
<tr>
<td>4.7 DESSA: Themes of Practicality</td>
<td>150</td>
</tr>
<tr>
<td>4.8 DESSA: Themes of Adaptability</td>
<td>150</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION, BACKGROUND, AND PURPOSE

Recent studies estimate that mental, emotional, and behavioral disorders deeply impact one in every five American families and create an under-recognized public health burden of $247 billion annually (O’Connell et al., 2009). The global COVID-19 pandemic has undoubtedly increased this public health strain and impacted families in unprecedented ways, including the increased pressures of school closures and remote learning, stress and trauma due to health concerns, economic crisis, as well as persistent racial inequities that have been exacerbated by the pandemic and amplified by nationwide movements for racial justice (Collaborative for Academic, Social, and Emotional Learning, 2020a). Although a growing body of literature has indicated that most educators, parents, students, and the general public support an educational agenda that includes a focus on the social-emotional development of students (Bridgeland et al., 2013; Jones & Kahn, 2017; Rose & Gallup, 2000) the sudden lack of face-to-face contact between teachers and students due to the COVID-19 pandemic has accentuated the gap between student’s growing behavioral and emotional needs and their access to social-emotional learning (Gehlbach & Chuter, 2020).

Existing research indicates that students who participated in a social-emotional learning program demonstrated a significant improvement with social and emotional skills, behavior, and academic performance, when compared to students who did not (Durlak et al., 2011). Likewise, the healthy development of children can be supported by the adoption of evidence-based SEL programming into standard educational practice (Durlak et al., 2011). In particular, the Second Step Social-Emotional Learning elementary curriculum is a universal, classroom-based intervention that can improve positive social behaviors and decrease problem behaviors and
emotional distress, as evidenced by multiple randomized control trials (Cook et al., 2018; Frey et al., 2005; Grossman et al., 1997; Low et al., 2015; Low et al., 2019). Moreover, there is also evidence to suggest that this curriculum may be suitable as a universal curriculum for students who require supports in a nontraditional setting, as Second Step Social-Emotional Learning program’s influence was especially strong on reductions in hyperactivity and improvements in learning skills for students with greater pre-existing problem behaviors (Low et al., 2015).

Despite the importance of social-emotional learning programming, and the availability of evidence-based SEL programming, the science related to systems-level implementation is less well developed to support applied practices (Fixsen et al., 2005). It has been well documented in many disciplines that “major gaps exist between what is known as effective practices (i.e., theory and science) and what is implemented (i.e., policy and practice;” Fixsen et al., 2005, p. 2). This frequently discussed research-to-practice gap is more precisely an implementation gap that is endemic in multiple fields (Cook et al., 2019; Sanetti & Collier-Meek, 2019) with practitioners often being tasked with determining how to best implement evidence-based practices into their contexts and with their populations. As such, contemporary implementation science focuses on the identification of implementation strategies that can mediate successful implementation (Cook et al., 2019; Lyon et al., 2019; Powell et al., 2015).

Feasibility research provides a framework to study implementation by examining the implementation process to evaluate if an intervention can work and how it does work in a particular setting (Orsmond & Cohn, 2015). Evaluating the process of implementation provides information about the acceptability and feasibility of an innovation that can be used to inform decisions about progressing to full-scale implementation (Gadke et al., 2021). Furthermore, the study of feasibility for psychological and educational innovations in school settings is an
emerging area of inquiry, and little is known about the feasibility of implementing social-emotional learning programming within alternative education settings.

Identifying best practice in implementation methods is especially important when working with vulnerable population of students, including those with emotional behavioral disorders (EBDs), who may receive school services in nontraditional settings. Students with emotional behavioral disorders (EBDs) are particularly vulnerable to adverse mental health consequences as they often experience less school success than any other group of students, with or without disability (Beaudoin et al., 2008; Wagner et al., 2005). More specifically, youths diagnosed with emotional behavioral disorders earn lower grades, fail more courses, and approximately 51% drop out of school (Sacks & Kern, 2008; Wagner et al., 2005). It is particularly troubling that longitudinal school-based studies have shown that these students demonstrate a lack of academic and behavioral progress, even when receiving special education services (Siperstein et al., 2011). Despite the public health relevance and the importance of supports students with emotional behavioral needs, there is no current way to track and monitor student data over time and across the United States (Ringeisen et al, 2017). The Second Step curriculum and the Devereux Student Strengths Assessment system are two promising interventions for supporting students with emotional behavioral disorders. The purpose of this study was to examine the feasibility of implementing a universal intervention (i.e., Second Step Social-Emotional Learning elementary curriculum) and assessment system (i.e., the Devereux Student Strengths Assessment) within a clinical day treatment program to support the SEL development for students with special education needs.

Social-Emotional Learning: An Important Solution
The term “social-emotional learning” was first introduced to a group of educators, researchers, and child advocates at the Fetzner Institute in 1994. At this conference, social-emotional learning (SEL) was presented as a conceptual framework to promote the social, emotional, and academic competence of young people and to coordinate school, family, and community programming to address those educational goals (Elias et al., 1997). Social and emotional learning was first formally defined as “the process through which children and adults develop the skills, attitudes, and values necessary to acquire social and emotional competence” (Elias et al., 1997, p.2). Moreover, social and emotional competence “is the ability to understand, manage, and express the social and emotional aspects of one’s life in ways that enable the successful management of life tasks” (Elias et al., 1997, p. 2). In other words, children and adults acquire the ability to understand, manage, and express social and emotional skills over time. These SEL skills can lead to problem solving and the successful management of everyday situations.

In the following decades after SEL was first brought to the forefront as a complex cultural imperative, a plethora of different frameworks, definitions, and competencies have emerged. In each of these frameworks SEL is defined in a unique way. Moreover, each SEL framework focuses on different social-emotional skills. For example, Jones and Bouffard (2012) posit that SEL skills can be divided into three domains: cognitive regulation, emotional processes, and social/interpersonal skills; whereas the Collaborative for Academic, Social, and Emotional Learning (CASEL; 2020b) theorizes that SEL has five domains of skill: self-awareness, self-management, responsible decision making, relationship skills, and social awareness. These differences in conceptualization are prevalent throughout the field, as is the inconsistent use of terminology (Jones et al., 2019).
**Strategies & Practices**

Although the field lacks one predominate framework of social-emotional learning, some researchers have identified strategies and practices that promote social and emotional development in students. To this end, Dusenbury and colleagues (2015) utilized numerous reviews of evidence-based programs from CASEL to identify and describe what social-emotional learning looks like in practice. They identified four overarching strategies, including 1) free-standing lessons, 2) general teaching practices, 3) academic integration, and 4) organizational policies and structures that support students’ social and emotional development (Dusenbury et al., 2015). Free-standing lessons are one of the most utilized SEL practices and are often a core component of packaged curriculums. One such curriculum, the Second Step Social-Emotional Learning curriculum, includes all four of these overarching strategies: free-standing lessons, recommended teaching practices, academic integration activities, and recommendations and resources for organizational structures.

Jones and colleagues (2021) have also identified a variety of focused high-quality, research-based teaching strategies that can be used to teach SEL skills and competencies. Rather than categorizing these strategies, Jones and colleagues (2021) describe a range of instructional methods that are typically found in leading SEL programs. These strategies were identified through content analysis and include (but are not limited to), didactic instruction, discussions, video modeling, visual displays, skill practice, role-play scenarios, literature, physical props, and activities involving physical movement (Jones et al., 2017). In order to maximize the effectiveness of social-emotional learning programming, it is important the strategies used are coordinated, active, focused, and explicit in targeting specific social and emotional skills (Durlak et al., 2011). Notably, the Second Step Social-Emotional Learning curriculum utilizes many of
these active and explicit instructional methods (e.g., didactic instruction, skill practice, role-play scenarios, physical movement activities).

**Multitiered Systems of Support**

Social-emotional learning has largely been conceptualized as a universal (tier 1) intervention that includes evidence-based instruction provided to all students. Many scholars have promoted the use of multitiered systems of support (MTSS) as an effective and efficient framework for delivering a continuum of mental health services (e.g., Cook et al., 2015), including social-emotional learning programming (Elias et al., 2018; Maras et al., 2015; Massachusetts Department of Elementary and Secondary Education, 2019; Melnick et al., 2017). A multitiered system of support can be defined as a comprehensive system of differentiated supports that includes evidence-based instruction, universal screening and progress monitoring, and data-based decision-making procedures to match the needs of individual students to the right level of support (Massachusetts Department of Elementary and Secondary Education, 2019). It has been stated that social-emotional learning content is the “missing piece” of a comprehensive system of support for students in schools (Bridgeland et al., 2013).

Given the importance of SEL to the prevention and remediation of behavioral challenges and the complexities of program implementation, it is essential that multi-tiered frameworks include a systematic approach not only to universal prevention but also encompassing targeted (tier 2) for some students and individualized (tier 3) supports for a few students. Designing a multitiered system of support for social-emotional learning includes determining the universal evidence-based instruction that will be provided to all students as well as the assessment system that can be used to proactively identify which students need more support than the universal schoolwide interventions (i.e., screening) and to continuously monitor the progress of students.
(i.e., progress monitoring) who may receive more target teaching and support. MTSS for social-emotional learning should also include these targeted tier 2 supports for some students and individualized tier 3 supports for a few students.

**Positive Outcomes of SEL Interventions**

There is a body of research that suggests social-emotional learning programs are an important method to prevent and address challenging behaviors in the school-setting. This is especially true when the social-emotional competency of students is assessed and monitored, areas of weakness can be supported, and areas of strength recognized. Research has found that SEL approaches that focus on integrating competence promotion and youth development frameworks have multiple benefits that reduce risk factors and foster protective mechanisms for positive adjustment (Catalano et al., 2002; Durlak et al., 2011; Guerra & Bradshaw, 2008; Weissberg et al., 2003). These outcomes include better adjustment and academic performance as reflected in more positive social behaviors, fewer conduct problems, less emotional distress, and improved test scores and grades (Durlak et al., 2011; Greenberg et al., 2003).

Multiple meta-analyses have been conducted to examine SEL outcomes for students. The earliest and most notable, a landmark meta-analysis conducted by Durlak and colleagues (2011), examined 213 studies that involved more than 270,000 students. They found that students who participated in SEL programming showed improved classroom behavior, an increased ability to manage stress and depression, as well as better attitudes about themselves, others, and school (Durlak et al., 2011). Additionally, for SEL interventions that utilized the five core competencies of self-awareness, self-management, responsible decision-making, relationship skills, and social awareness, students’ academic performance increased 11 percentile points, as compared to students who did not participate (Durlak et al., 2011). Further meta-analyses (e.g., Sklad et al.,
2012; Taylor et al., 2017; Wigelsworth et al., 2016) found similar results showing that students who received SEL interventions saw greater gains in social-emotional competencies and academics as those who did not participate. These studies provide evidence of generalization for the findings reported by Durlak and colleagues (2011) with more recent research findings and international populations.

**Evidence-Based Instruction: Second Step Social-Emotional Learning Curriculum**

One of the most widely disseminated whole-school SEL curriculums is the Second Step Social-Emotional Learning curriculum. Second Step is a universal, classroom-based program that was designed to increase the school success of students and decrease problem behaviors (Committee for Children, 2011b). Second Step offers multiple versions, including early learning (PreK), elementary (K-5), and middle school (6-8) curriculums; all of which promote social-emotional competence and self-regulation (Committee for Children, 2011b). Each version of the curriculum includes a developmentally appropriate grade specific curriculum. The elementary curriculum includes *free-standing lessons* that are designed to be taught in sequential order and has three units: empathy and skills for learning, emotion management, and problem solving. Each lesson is scripted and includes an introduction (5-minutes), a story and discussion (10-15 minutes), an activity (10-15 minutes), and a wrap-up (5-minutes). Teachers are also provided with *extension activities* that include daily practice activities, take-home activities, reflective writing assignments, relevant book suggestions, and academic integration activities. To support the use and generalization of skills, the Second Step curriculum recommends three practices to support using skills every day: anticipate, reinforce, and reflect. Students are prompted to *anticipate* times during the day during which they may feel a particular way (e.g., empathy, frustration) or may benefit from using a skill. Teachers should *reinforce* target behaviors with
specific feedback throughout the day (e.g., provide specific feedback on students using respectful responses during class discussions and group work) and prompt students to reflect on times during the day where they utilized the target skill (e.g., put themselves in “someone else’s shoes”).

Results of multiple randomized control trials support the effectiveness of the Second Step elementary program for decreasing problem behaviors and emotional distress, as well as improving positive social behaviors (Cook et al., 2018; Frey et al., 2005; Grossman et al., 1997; Low et al., 2015; Low et al., 2019). In the first randomized control trial (RCT) utilizing Second Step, Grossman, and colleagues (1997) found that students who participated in the program had greater reductions in observer-reported physically aggressive behaviors as compared to students in the control group. Frey and colleagues (2005) conducted an RCT, and in this study the results indicated that students who participated in the program demonstrated improvements in teacher-reported social behaviors and student-reported prosocial goals as compared to students in the control group (Frey et al., 2005). Furthermore, Second Step has been designated as a CASEL SELect program (the highest designation) after an extensive review process of hundreds of SEL programs (CASEL, 2013; CASEL, 2015). Notably, the Second Step Social-Emotional Learning curriculum has been awarded this designation due to being a well-designed classroom-based program that provided opportunities for practice and includes multi-year programming, high-quality training, and is evidence-based with at least one carefully conducted evaluation that documents positive impacts on student behavior and/or academic performance (CASEL, 2013; CASEL, 2015).

Students with Emotional Behavioral Disorders
The Second Step social emotional learning curriculum may be particularly effective for students with emotional behavioral disorders. Point of fact, in a one-year randomized control trial, students demonstrated improvements in prosocial skills, empathy, and conduct, especially with students with lower baseline skills than their peers, with the number of lessons completed and student engagement being predictive of improved student outcomes (Low et al., 2015). Importantly, students with pre-existing problem behaviors had especially strong improvement in social-emotional competence after receiving social-emotional learning instruction (Low et al., 2015). Additionally, in a two-year randomized control trial conducted by Low and colleagues (2019), results indicated that students receiving the Second Step elementary curriculum had increased social-emotional skills and decreased disruptive behavior, with the strongest effects for students who had the lowest baseline skills.

The Second Step elementary program has also been found to be effective for students outside of the United States when utilizing an adapted curriculum (Schick & Cierpka, 2005). For example, a randomized control trial conducted in urban and suburban schools in Germany found that students who participated in the program had greater reductions in parent-reported anxious/depressive behaviors as compared to students in the control group (Schick & Cierpka, 2005). Another study conducted using a quasi-experimental design, with elementary students in Norwegian schools using an adapted form of the Second Step curriculum, found that the program had significant positive effects on social competence for boys and girls in fifth grade and for girls in sixth grade (Holsen et al., 2008). These international examples are particularly important as they suggest that an adapted Second Step curriculum can also produce effective results with students.

Assessment: Screening & Progress Monitoring
The measurement of social-emotional competence is an essential component of a multitiered system of support for social-emotional learning (SEL), just as measurement is fundamental to the assessment of academic progress. SEL competency assessment is a promising area of inquiry that is growing rapidly. Notably, however, few social-emotional learning competency assessments have undergone the rigorous validation process that is typical for large-scale implementation of academic assessments (Gresham et al., 2010; Taylor et al., 2018). Nevertheless, assessing social-emotional learning competencies is necessary for school districts to establish a common language for SEL, deepen understanding of how SEL competencies manifest in students over time, and evaluate the effectiveness of SEL programs and approaches (Taylor et al., 2018). Furthermore, assessing SEL competencies communicates that SEL is a priority that can support equitable outcomes in education (Taylor et al., 2018).

When conceptualizing the assessment of social-emotional learning, it is important to use assessments in a systematic manner for the purposes of screening and progress monitoring. Screening is an assessment process to proactively identify students who have more intensive needs than universal interventions are likely to support (Burke et al., 2012). Progress monitoring is a specific type of formative assessment that is an important tool to continuously monitor academic progress (Shapiro, 2008; Shinn, 2008) and has started to be used more systematically to monitor behavior interventions (Burke et al., 2012) and social behaviors (Gresham et al., 2010). Notably, formative assessments are used for learning and summative assessments are assessments of learning (Taylor et al., 2018). In other words, formative assessments are typically administered regularly and are used to guide instruction whereas summative assessments are given less frequently and focus on determining what learning has already taken place.
There are multiple methods of SEL competency assessments, including rating scales, observation protocols, and performance-based assessments, all of which have advantages and limitations (Taylor et al., 2018). Rating scales that are completed by teachers and parents/guardians as well as student self-report questionnaires are a common method. Student self-report rating scales and interview protocols can be especially useful as a way to capture student voice and assess knowledge and skills that can be difficult to observe (Taylor et al., 2018). Teacher and parent rating scales and observation protocols utilize an outside viewer (i.e., clinician, teacher, parent) to assess the observable behavior and skills of students (Taylor et al., 2018). There are also performance-based assessments that allow for students to engage in complex and structured tasks that can be used as measures of students’ SEL skills (Taylor et al., 2018).

Assessment selection is supported by determining the specific purposes of assessment and identifying the available resources (e.g., personnel, time, funding, materials) as well as the additional resources needed to implement each type of assessment (i.e., rating scales, interview protocols, observation tools, performance-based). Additionally, Jones and Barnes (2018) recommended that efforts to measure SEL should be actionable, rooted in evidence-based practices and strategies that are developmentally salient (i.e., the assessment should align with what is realistic to expect of children at specific ages; Jones & Barnes, 2018). Furthermore, it is essential to take into consideration the context of implementation with selected assessment methods being sensitive and nuanced enough to capture variation across time and between contexts (Jones & Barnes, 2018).

The Devereux Student Strengths Assessment System
The Devereux Student Strengths Assessment system is comprised of a universal screening and progress monitoring system for social-emotional learning competencies. This system is comprised of the Devereux Student Strengths Assessment (DESSA), a 74-item standardized and norm-referenced rating scale that measures social-emotional competencies in children and youth in kindergarten through eighth grades, and the Devereux Student Strengths Assessment-mini (DESSA-mini). The DESSA-mini is a brief 8-item designed to screen all children in a given population in a cost- and time-efficient manner (Naglieri et al., 2014). Students who are identified as having low social-emotional competence with the DESSA-mini should be considered for additional instruction and should be administered the full DESSA in order to understand the specific strengths and needs of the child and to support the individualization of instruction (Naglieri et al., 2014).

The full DESSA rating scale can be completed by teachers, parents, and other practitioners. When completing the DESSA, raters are prompted to indicate on a five-point scale how often the student engaged in particular behaviors over the past four weeks (e.g., Did the student carry themselves with confidence? Keep trying when unsuccessful? Cope well with insults and mean comments?). The DESSA results are organized into eight social-emotional competencies with an overall competency score, which is a combination of the eight competencies. The eight competencies are self-awareness, social-awareness, self-management, goal-directed behavior, relationship skills, personal responsibility, decision making, and optimistic thinking (LeBuffe et al., 2014). These competencies are considered by DESSA as critically important and beneficial for all students (LeBuffe et al., 2014). Based on each raters’ responses, a T-score, percentile, and a designation of need for instruction, typical, or strength is provided (LeBuffe et al., 2014).
The DESSA and the DESSA-mini can be used to progress monitor the social-emotional competence of individual students and data from these assessments can be used to evaluate social-emotional learning programs by examining the outcomes at the child, classroom, and program levels (LeBuffe et al., 2014). Ideally progress monitoring would occur three to four times during a typical school year (LeBuffe et al., 2014). Furthermore, DESSA’s online system provides an abundance of resources and lesson plans on growth strategies and foundational practices that can be used within a multitiered system of support.

**Students with Emotional Behavioral Disorders**

The Devereux Student Strength Assessment system may be a feasible way to measure outcomes for students with social, emotional, and behavioral challenges and reduce student’s risk. DESSA has been standardized through a carefully prescribed method in order to have the sample closely represent the United States population on several important dimensions (i.e., age, gender, geographic region of residence, race, ethnicity, and socioeconomic status; LeBuffe et al., 2014). Importantly for this population of students, criterion-related studies from LeBuffe and colleagues (2014) found that DESSA scores do differentiate between students with and without the special education designation of emotional disturbance and may help with determining eligibility for emotional disturbance (LeBuffe et al., 2014). Furthermore, using item level analysis to examine DESSA results can be useful for identifying areas in need of instruction that could be contributing to the student’s social, emotional, behavioral, and school problems. Individual items could also be used to suggest areas for functional behavioral assessment and identify appropriate replacement behaviors (LeBuffe et al., 2014).

DESSA may also be a useful assessment for students with social and emotional challenges because it is a strength-based assessment that measures positive behaviors rather than
maladaptive ones, which is an approach recommended by the literature to promote positive development (Taylor et al., 2018). A strength-based approach for SEL emphasizes promoting the development of all students’ knowledge, skills, and attitudes while functioning under the assumption that SEL can equip students with the positive relationships and effective coping mechanisms to support healthy development (Taylor et al., 2018). This approach is one that distinguishes SEL from other similar fields that may use a diagnostic approach that seeks deficits (Taylor et al., 2018). Additionally, this strength-based approach is consistent with the requirements of the Individuals with Disabilities Educational Improvement Act (2004) that includes a provision that individual education programs (IEPs) include students’ strengths.

**Implementation Science**

To achieve the positive outcomes associated with social-emotional learning interventions the practices and assessment systems must be implemented as intended. Despite the continual development of innovative interventions such as these, practices are often not successfully translated into school settings (Owens et al., 2014) and when adopted are done so slowly and haphazardly (Cook et al., 2019; Fixsen et al., 2005). It has been well documented in many disciplines that “major gaps exist between what is known as effective practices (i.e., theory and science) and what is implemented (i.e., policy and practice;” Fixsen et al., 2005, p. 2). Although the science related to identifying evidence-based practices is growing, the science related to implementing these programs is still developing (Fixsen et al., 2005). This frequently discussed research-to-practice gap is more precisely an implementation gap that is endemic in multiple fields (Cook et al., 2019; Sanetti & Collier-Meek, 2019). One contributing factor to this implementation gap is that research often focuses on whether an intervention or practice works in a highly-controlled setting, rather than focusing on the process of implementation in a variety of
contexts (Orsmond & Cohn, 2015). This study emphasizes that multitiered social-emotional learning programs are important and especially vital to students with social, emotional, and behavioral disabilities who receive services in alternative settings. Considering the importance of this intervention and this vulnerable population, it is highly important to investigate the first-year of implementation while utilizing implementation science and feasibility research.

Implementation science has been defined as “the methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and, hence, to improve the quality and effectiveness of … services” (Eccles & Mittman, 2006, p. 1). To identify what is needed to broker high-quality programs and practices from research to the field of education, Fixsen and colleagues (2005) conducted an extensive literature review and derived the Stages of Implementation framework. This framework emphasizes that implementation will not happen all at once nor proceed smoothly (Fixsen et al., 2005). Furthermore, change will not occur simultaneously or evenly in all parts of a practice or an organization (Fixsen et al., 2005). Fixsen and colleagues (2005) reported six discernible stages in the process of implementing evidence-based practice and programs: 1) exploration and adoption, 2) program installation, 3) initial implementation, 4) full operation, 5) innovation, and 6) sustainability (e.g., Faggin, 1985; Fixsen et al., 2005).

The exploration and adoption stage focuses on determining the potential match between an evidence-based practice and the needs of a program or community (Fixsen et al., 2005). Once it has been decided that a program or practice will be implemented then program installation can commence. This stage involves planning and preparing resources that are needed to implement the new innovation. Initial implementation follows and requires changes in the overall practice environment (Kitson et al., 1998). These changes may vary in the degree of changes needed for
program adoption for an individual or an organization (Fixsen et al., 2005). Initial implementation has been described as an “initial awkward stage” (Joyce & Showers, 2002) as practitioners strive to become familiar with implementing an intervention and build confidence. This transfer of knowledge can also be reflected as an individuals’ gradual increase in ability due to the process of experience and repetition (Fixsen et al., 2005). Notably, this initial stage of implementation is when the confidence in the decision to adopt the program is being tested (Fixsen et al., 2005) and for social-emotional learning interventions, in particular, positive outcomes for students may be diminished due to implementation problems (Durlak et al., 2011).

Over time, as new learning becomes integrated into practice, policy, and procedure (Fixsen et al., 2005), the innovation will become “accepted practice” and “treatment as usual will take place (Faggin, 1985). During this full operation stage, all staff are implementing the evidence-based practice with proficiency and skill, the community has adapted to the practice, and administrators support and facilitate the new practices. As the intervention is utilized, more information will be understood about implementation considerations and what conditions it can be used with fidelity. As a practice is continually implemented, the innovation phase is entered. During this time, changes will occur and some of these changes will be considered innovations that should be included within the “standard model of treatment” (Winter & Szulanski, 2001) and others will be considered “program drift” and will be considered a threat to fidelity (Mowbray et al., 2003). After the intensity of establishing a fully implemented evidence-based program, which typically takes 2-4 years, the goal of implementation shifts to the sustainability and long-term survival and continued effectiveness in an everchanging ecology (Fixsen et al., 2005).

**Feasibility Research**
Feasibility research addresses the implementation gap by focusing on the process of implementing an intervention with the goal of determining if and how a program can be practically implemented and evaluated (Gadke et al., 2021; Orsmond & Cohn, 2015). Feasibility research is a well-established practice in the medical field and is primarily used for the purpose of conducting preliminary work prior to running a large-scale randomized controlled trial (Whitehead et al., 2014). Conducting preliminary work before the implementation of a full-scale study allows for the remediation of problems related to the delivery of the intervention (Gadke et al., 2021). These complications include low compliance, inadequate measurement of key outcomes, and smaller-than-expected effect sizes (Gadke et al., 2021). Researchers can then utilize the data collected to not only prevent problems in a full-scale study or pilot study but to also improve the quality of the research. Furthermore, feasibility studies have the potential for maximizing the “real-world” implementation of the selected intervention (Gadke et al., 2021).

Researchers from the medical and occupational health fields have developed conceptualizations of feasibility that include dimensions that are applicable to their fields (e.g., Bowen et al., 2009; Tickle-Degnen, 2013; Orsmond & Cohn, 2015). Building on the work of these researchers, Gadke and colleagues (2021) created a feasibility framework that is applicable to intervention research in psychology and education and includes intervention-specific issues. The following 10 dimensions are included in the framework: recruitment capability, data collection, design procedures, social validity, practicality, integration, adaptability, implementation, effectiveness, and generalizability (Gadke et al., 2021). Selected dimensions that are pertinent to this study are described below.

**Social Validity**
Traditionally, social acceptability refers to the judgements of clients and others regarding whether treatment procedures are appropriate, fair, and reasonable (Kazdin et al., 1981; Wolf, 1978). A more modern interpretation of social validity refers to the social significance or relevance of a given intervention (Berger, et al., 2016). Although there are various conceptualizations of social validity, most include the significance of the goals, appropriateness of the procedures, and the importance of effects (Ledoux, 2021). Recent studies may also include the enthusiasm for implementation, feasibility of the time and resources needed for the intervention, as well as contextual alignment of the intervention with school climate and support from administration (Ledoux, 2021; McNeill, 2019).

There are a variety of methods that can be used to evaluate social validity. Ayala and Elder (2011) recommend using formative research methods such as focus groups and interviews to assess the acceptability of intervention materials and procedures, including with cultural appropriateness, content, presentation, packaging, and delivery. Moreover, focus groups and interviews can provide an important opportunity for discussion between researchers, interventionists, intervention recipients, and school-level staff (Gadke et al., 2021). During discussions researchers can probe further for a more comprehensive understanding of the program’s social significance (Gadke et al., 2021). Ratings scales are another option to assess social validity although the utility for feasibility research is somewhat limited (Gadke et al., 2021).

**Practicality**

The practicality dimension of feasibility involves determining whether the intervention can be used within contextual and environmental constraints of time, resource availability, and practitioner commitment (Bowen et al., 2009; Gadke et al., 2021). Practicality involves the
consideration of both resource assessment (e.g., physical space, technology requirements) and management assessment (e.g., the expertise and experience of researchers and educators; Tickle-Degnen, 2013). Importantly, this dimension focuses on identifying the practical challenges that were not identified prior to the feasibility study (Gadke et al., 2021). This dimension is related to social validity of implementation.

**Adaptability**

The adaptability of an intervention is similar to the feasibility dimensions of practicality and integration. Although practicality and integration refer to the ability to deliver an intervention while using existing resources, adaptability refers to whether an intervention can be modified to meet the needs of the implementation setting (Lyon et al., 2019). These needs can include those of the implementers and students in an alternative setting. Gadke and colleagues (2021) recommend asking the following questions to assess adaptability: Are the tools needed for implementation universal? Can the program be easily adjusted to fit across various school settings? Is it necessary to adhere to a rigid set of requirements to implement the intervention?

**Implementation**

Broadly, implementation refers to the extent to which intervention procedures are followed as intended. Historically, assessing implementation has focused on the structural components of an intervention, typically through the use of observation or self-report (Dusenbury et al., 2003). The primary structural component that is examined is the interventionist’s adherence to the procedures of the intervention. More modern interpretations of implementation also include broader, multidimensional models of treatment integrity. These dimensions include exposure (i.e., amount, frequency, and length of intervention sessions), quality of delivery (i.e., skill, enthusiasm, understanding), and participant responsiveness (i.e.,
engagement, enjoyment, and attentiveness; Sanetti et al., 2011). Other forms of implementation data include self-reports, interviews, observations, and analyses of participant artifacts (O’Donnell, 2008). The use of diverse methods and sources can provide a wealth of knowledge about implementation issues related to feasibility (Ruiz-Primo, 2006).

**Effectiveness**

Although the primary goal of feasibility research is to focus on the process (Gadke et al., 2021) it is also prudent to determine if the intervention is showing promising evidence of effectiveness (Orsmond & Cohn, 2015). The effectiveness dimension can begin to examine whether the dependent variable(s) will be sensitive to change given the contextual factors of the intervention setting (Gadke et al., 2021). Feasibility issues related to the methods of data collection and outcome measures, including testing the assessment protocols, methods of training data collectors, and logistical issues with data collection may/should be evaluated (Gadke et al., 2021). Furthermore, examining the independent variable(s), such as training for interventionists, dosage, and duration should be examined (Gadke et al., 2021).

**Present Study**

Social-emotional learning intervention and assessment systems that include evidence-based instruction, screening, and progress monitoring for all students are a highly important method of supporting social-emotional skill development and preventing and addressing challenging behaviors in the school-setting. Multiple meta-analyses (Durlak et al., 2011; Sklad et al., 2012; Taylor et al., 2017; Wigelsworth et al., 2016) have demonstrated that students who received SEL interventions saw greater gains in social-emotional competence and academics. In particular, the elementary version of the Second Step Social-Emotional Learning curriculum has been found to improve positive social behaviors and decrease problem behaviors and emotional
distress, as evidenced by multiple randomized control trials (Cook et al., 2018; Frey et al., 2005; Grossman et al., 1997; Low et al., 2015; Low et al., 2019). Assessing social-emotional competence is a foundational component of developing a multitiered system of support for social-emotional learning and is necessary to evaluate the effectiveness of SEL programs and approaches (Taylor et al., 2018). One such assessment system, the Devereux Student Strengths Assessment (DESSA) system, includes a psychometrically sound, strength-based measure of social-emotional competence that can be used to identify children at risk of developing social-emotional problems before those problems emerge and to progress monitor the social-emotional competence of all students (LeBuffe et al., 2014).

Despite the positive outcomes associated with SEL, the science related to implementing social-emotional programming lags behind. Considering that is has been well-documented in many disciplines that “major gaps exist between what is known as effective practices (i.e., theory and science) and what is implemented (i.e., policy and practice;” Fixsen et al., 2005, p. 2), it is important to address this research-to-practice implementation gap (Cook et al., 2019; Sanetti & Collier-Meek, 2019). One approach to addressing this research-to-practice implementation gap is to systematically evaluate the process of implementing the intervention within the target setting (Orsmond & Cohn, 2015). Determining if an intervention can work and how it does work in a particular setting is an essential component of intervention development, scaling up implementation (Gadke et al., 2021) and maximizing outcomes for students. This is especially important for students with pre-existing problem behaviors, including those with emotional behavioral disorders (EBDs), who typically experience less school success than any other subgroup of students, with or without disability (Beaudoin et al., 2008; Wagner et al., 2005) and
social-emotional learning programs support the development of positive social behaviors (Durlak et al., 2011; Greenberg et al., 2003).

The purpose of this retrospective case study was to examine the feasibility of implementing an evidence-based, universal intervention and assessment system within a clinical day treatment program that supports students with special education needs. More specifically, this study examined the feasibility of implementing the Second-Step Social-Emotional Learning curriculum and the Devereux Student Strengths Assessment. This study used a case study research approach with quantitative data (e.g., the Devereux Student Strengths Assessment, survey responses) and qualitative data (e.g., written feedback from educators, end of year focus group, meeting notes and procedural documents) to evaluate the feasibility of this intervention within this clinical day treatment setting. This study was structured around two research questions, the first focused on the Second-Step social-emotional learning curriculum and the second examined the Devereux Student Strengths Assessment system. The feasibility dimensions of social validity, practicality, adaptability, implementation, and effectiveness were examined for the curriculum and/or the assessment system. Quantitative and qualitative data were analyzed within a mixed-methods explanatory sequential design that used qualitative data to explain and provide additional context for the quantitative results. Lessons learned from this case study will be influential for determining the best ways to strengthen the implementation process of social-emotional learning interventions, particularly in clinical day treatment settings.

**Research Questions**

**Research Question 1: Second Step Social-Emotional Learning Curriculum**

Is it feasible to implement the Second Step Social-Emotional Learning Curriculum in a clinical day treatment setting that serves students with special education needs?
**Part 1.1: Social Validity**

How did interventionists perceive the acceptability of the Second Step Social-Emotional Learning curriculum?

**Hypothesis 1.1**

It was hypothesized that interventionists would have a positive perception of acceptability of the implementation of the Second Step Social-Emotional Learning curriculum, considering that developing interventionist buy-in was a priority and educator input was sought throughout the exploration and adoption, program installation, and initial implementation phases.

**Measures & Analysis 1.1**

To examine social validity, interventionists’ perceptions of acceptability were assessed through the use of *formative and summative assessments* as well as an *end-of-year focus group*. Descriptive statistics were computed and summarized for all quantitative questions included on the formative and summative assessments. Interpretational analyses were conducted on the qualitative components of these assessments with the data coded to determine common patterns or themes (Braun & Clarke, 2006). This coding and analysis process was aided by the use of NVivo software.

**Part 1.2: Practicality**

What practical challenges emerged during initial implementation of the Second Step Social-Emotional Learning curriculum, and what can we learn from these challenges that can guide taking the Second Step program to scale in this clinical day treatment setting and others?

**Hypothesis 1.2**

It was hypothesized that there would be practical challenges that were not identified prior to implementation.
Measures & Analysis 1.2

Determining what practical challenges were confronted during the first year of implementation was assessed through thematic analysis (Braun & Clarke, 2006) of the relevant qualitative data sources, including the formative and summative assessments, an end of year focus group, a weekly self-reflection, meeting notes from leadership meetings and planning sessions, procedural documentation, training resources, and lesson plans. During the interpretational analysis, data were coded to determine common patterns or themes aided by the use of NVivo software.

Part 1.3: Adaptability

How was the Second Step Social-Emotional Learning curriculum adapted within the context of one organization’s clinical day treatment program, as compared to the original program, and how adaptable was the Second Step program for use in the clinical day treatment program?

Hypothesis 1.3

It was hypothesized that the structure of the Second Step curriculum would be a good fit for implementation within the clinical day treatment setting and that the curriculum would require some adapting, especially considering the social distancing requirements due to the COVID-19 pandemic. It was also hypothesized that adaptations would not vary in content or program intent from the original program. Analyses were synthesized for recommendations to support taking the Second Step program to scale in this clinical day treatment setting and to provide recommendations for similar settings.

Measures & Analysis 1.3
Quantitative survey responses were collected in the form of a weekly self-reflection, and these were analyzed using descriptive statistics. Additionally, relevant qualitative data sources, including the formative and summative assessments, an end of year focus group, a weekly self-reflection, meeting notes from leadership meetings and planning sessions, procedural documentation, training resources, and lesson plans, were analyzed to determine themes using thematic analysis (Braun & Clarke, 2006).

**Part 1.4: Implementation**

How were the program components (e.g., preparation, lesson fidelity, student engagement strategies, management strategies) of the Second Step Social-Emotional Learning curriculum implemented?

**Hypothesis 1.4**

It was hypothesized that the Second Step curriculum would be implemented with fidelity, especially with the use of targeted student engagement strategies.

**Measures & Analysis 1.4**

Observation and weekly self-report measures were developed and utilized for this study to examine implementation. Descriptive statistics were computed to examine the implementation of the program components (e.g., preparation, lesson fidelity, student engagement strategies, management strategies). Descriptive statistics were also used to examine the implementation of the following-through activities that were reported on the weekly self-report measures. Relevant qualitative data sources, including the formative and summative assessments, an end of year focus group, and the weekly self-reflection, were analyzed using thematic analysis (Braun & Clarke, 2006).

**Part 1.5: Effectiveness**
Does the Second-Step Social-Emotional Learning intervention show promise within the clinical day treatment setting and is there preliminary evidence of potential for this intervention to bring about positive change (e.g., students’ overall social-emotional competence, self-awareness, social-awareness, self-management, goal-directed behavior, relationship skills, personal responsibility, decision making, optimistic thinking)?

**Hypothesis 1.5**

It was hypothesized that the social competence of students would show evidence of improvement after the implementation of units 1 and 2 of the Second Step Social-Emotional Learning curriculum.

**Measures & Analysis 1.5**

For this study, students’ *social-emotional knowledge* and *competence* were examined to determine if there is promising evidence of effectiveness. Students’ social-emotional knowledge was measured by the *Second Step knowledge test* and students’ social-emotional competence by the *Devereux Student Strengths Assessment*. Descriptive statistics used to identify trends in knowledge growth and social competence using the Second Step knowledge test and the Devereux Student Strengths Assessment. Relevant qualitative data sources, including the *formative and summative assessments, an end of year focus group, and the weekly self-reflection*, were analyzed using thematic analysis (Braun & Clarke, 2006).

**Research Question 2: Devereux Student Strengths Assessment System**

Is it feasible to implement the Devereux Student Strengths Assessment system in a clinical day treatment setting that serves students with special education needs?

**Part 2.1: Practicality**
What practical challenges emerged during initial implementation of the Devereux Student Strengths Assessment system?

**Hypothesis 2.1**

It was hypothesized that there would be practical challenges that were not identified prior to implementing the Devereux Student Strengths Assessment system.

**Measures & Analysis 2.1**

The practical challenges of implementing the DESSA for all students in the clinical day treatment program were determined by conducting interpretational analysis (Braun & Clarke, 2006) on the relevant qualitative data sources, including the formative and summative assessments, an end of year focus group, a weekly self-reflection, meeting notes from leadership meetings and planning sessions, procedural documentation, training resources, and lesson plans.

**Part 2.2: Adaptability**

How was the Devereux Student Strengths Assessment (DESSA) system adapted for use within the context of one organization’s clinical day treatment program, as compared to the original system, and how adaptable was the DESSA system for use in the clinical day treatment program?

**Hypothesis 2.2**

It was hypothesized that the DESSA system would be a good fit for use within the clinical day treatment setting with some procedural adaptions. Analyses were synthesized for recommendations to support taking the DESSA system to scale in this clinical day treatment and to provide recommendations for similar settings.

**Measures & Analysis 2.2**
Qualitative data sources, including meeting notes from leadership meetings and planning sessions, procedural documentation, and training resources, were examined using thematic analysis (Braun & Clarke, 2006) to determine the adaptability of DESSA within one clinical day treatment program.
CHAPTER 2
REVIEW OF THE LITERATURE

The conceptualization and the theoretical foundations of social-emotional learning are essential for understanding the need for the present study. This chapter will review the historical foundations and the evolution of social-emotional learning as well as the theories that guide curriculum development, instructional methods, and implementation. Considering the setting and population of students in this study, the historical foundations of nontraditional school settings and special considerations for serving students with disabilities will be examined. This chapter will begin by detailing the historical progression of social-emotional learning, which will be followed by a review of the definitions, frameworks, and competencies.

An Introduction to Social-Emotional Learning

Social and emotional learning (SEL) has been broadly referred to as the process through which children and adults learn and apply a set of social, emotional, and related skills to solve problems within their daily lives and enable them to have success in school, work, and life. Success refers not only to accomplishments, wealth, or a higher social status but does involve each individual defining what success means for themselves. It may mean achieving one’s goals and purpose, demonstrating kindness and compassion to advocate for others, or persevering through difficulties in life. Attaining one’s goals requires strong social-competence and support for developing these social-emotional skills in school settings has never been greater. This necessitated prioritization of the social-emotional wellbeing of students is in part due to the unexpected lack of face-to-face contact between teachers and students during the height of the COVID-19 pandemic. Although the COVID-19 pandemic spurred action on the part of many educational institutions to prioritize social-emotional learning programming, the interest in social
and emotional development can be traced back to 1900 (Osher et al., 2016). Scholarship related to social and emotional development gradually progressed over the following decades until a dramatic expansion in the 1990s (Osher et al., 2016). This growth has been attributed to the growing sophistication of research methods and the accumulating evidence of the effectiveness of programs to prevent problem behavior and promote healthy development (Osher et al., 2016). Social concerns including bullying and school shootings, created further urgency for prevention programs and approaches to create safe and supportive school environments (Dwyer et al., 2000; Osher et al., 2016).

During this expansion, the term “social-emotional learning” was introduced as part of a conceptual framework to promote the social, emotional, and academic competence of young people and to coordinate the school-family-community programming to address those educational goals (Elias et al., 1997). This term was first introduced in 1994 at a meeting of educators, researchers, and child advocates hosted by the Fetzer group, which was held due to the many concerns regarding the effectiveness of the multitude of prevention and health promotion efforts (Greenberg et al., 2003). This group believed that instead of utilizing the categorical prevention programs that addressed specific concerns, such as drug use and teen pregnancy, social-emotional learning programming could address the underlying causes of problem behavior while also enhancing academic achievement (Greenberg et al., 2003). In addition to introducing social-emotional learning at this conference, a new organization was formed with the purpose of establishing social-emotional learning as an essential educational component for students of all ages (Greenberg et al., 2003). This organization was the Collaborative for Academic, Social, and Emotional Learning (CASEL), which is the most
prominent organization at the forefront of social-emotional learning primarily based in the school setting. In fact, CASEL is synonymous with social-emotional learning.

The 1990s were a pivotal decade for the conceptualization of social-emotional learning and since this time the field of social-emotional learning has grown rapidly. There is now a plethora of ways to conceptualize and describe social-emotional learning, including different frameworks and competencies that are used internationally and within the United States. In fact, Berg and colleagues (2019) conducted an extensive search across 14 fields, including juvenile justice, foster care, trauma/resilience, economics, and disability/special education, and found 136 frameworks of social-emotional learning. These frameworks are overarching organizational strategies to identify core domains and competencies of social-emotional learning. Generally, frameworks can be described as a “tool that helps organize ideas in order to provide a foundation for thinking, communicating, and acting” (Blyth et al., 2018, p. 2). Notably, frameworks influence how we interpret information and are commonly used shortcuts that have the potential to shape our actions and furthermore how a community supports its youth (Blyth et al., 2018).

Frameworks have been used as roadmaps for SEL to outline the kind of knowledge and skills that theoretically should be seen across the development of children and what outcomes to expect (Jones et al., 2019). In other words, frameworks tell us what we should be aiming for (Jones et al., 2019). Furthermore, Jones and colleagues (2019) posit that social-emotional learning frameworks should be concrete with a clear set of short- and long-term outcomes, contain transparent terminology linked to teaching practices and assessment, and include a developmental approach linking concepts to age-specific and context-relevant demands and opportunities (Jones et al., 2019). Furthermore, each framework of social-emotional learning is
unique with distinctive theoretical orientations that may include theories of learning, development, and emotion.

Selecting a framework for conceptualizing social-emotional learning in school settings is a complex yet essential activity that can have far-reaching implications since the selected framework is what influences how social-emotional learning is understood by practitioners, students, families, and the community. This understanding of SEL shapes not only the thinking process but also dictate responses to situations. Berg and colleagues (2017) analyzed 50 social-emotional learning frameworks and concluded that the key purposes of having a social-emotional learning framework were for applied practice as well as the identification of standards and competencies, measurement considerations, and theory and research development. Importantly, fewer than 20% of SEL frameworks consider culturally linguistically diverse individuals and groups and less than 20% of the frameworks consider the experiences of youth with disabilities (Berg et al., 2017). Frameworks of social-emotional learning also vary in terms of the target age range (e.g., infancy through adulthood; grades K-12; ages 0-5; ages 15 to 25) as well as the intended setting (e.g., school; out-of-school time; community, workplace). Additionally, frameworks vary in their focus on theoretical foundations, empirical support, intended purposes, and different competencies (Blyth et al., 2018). When determining which of the many SEL frameworks is an appropriate fit for a particular school or district setting, it is crucial to select one that considers the experiences of youth with disabilities as well as diverse ethnicities, cultures, backgrounds, and languages. Notably, cultural and disability considerations for programming should be incorporated from the onset, rather than as secondary factors. Critically, for SEL to be effective, it must be equitable, supportive, affirming, and beneficial to students and educators of all cultures, backgrounds, and identities (Jones et al., 2021).
A majority of social-emotional learning frameworks identify domains of social and emotional competencies. These domains include those related to cognitive, intrapersonal, and interpersonal skills as well as ethical values, connection to community, and social justice (Berg et al., 2017), but are highly varied. For example, the first formal framework for social-emotional learning by Elias and colleagues (1997) included the broad competencies of emotion, cognition, and behavior, whereas a well-known framework from the Collaborative for Academic, Social, and Emotional Learning (CASEL) is structured around the competencies of self-awareness, self-management, social awareness, relationship skills, and responsible decision making. Moreover, Jones and colleagues (2021) conducted content analysis of common SEL frameworks and identified six domains of competency: cognitive, social, emotional, values, perspectives, and identities. As demonstrated in these three examples, there are many varying terms and conceptualizations of social-emotional competence. Providing further context of the magnitude of this challenge, when Berg and colleagues (2019) conducted an in-depth analysis of 50 SEL frameworks, they identified 748 different competencies, with the largest percentage of competencies falling in the prosocial/cooperative behavior subdomain with the second being the ethical values subdomain (Berg et al., 2017; Berg et al., 2019).

In addition to the multitude of social-emotional learning competencies, social-emotional learning terminology is also subjected to “jingle and jangle fallacies” (Jones et al., 2016). Jingle and jangle fallacies have been described in the context of many disciplines, including achievement and intelligence by psychologists Herbert Aikins and Edward Thorndike. Thorndike quoted Aikins who stated, “the glibness which we differentiate between achievement and intelligence is explained in part by the fact that our language is at fault” (Kelley, 1927, p. 63). Aikins described the “jingle” as a mere verbal resemblance with insufficient underlying
significance and the “jangle” was described by Kelly (1927) as two separate words covering “the same basic situation, but sounding different, as though they were in truth different” (p. 64).

Specifically for social-emotional development, the “jingle fallacy” refers to the use of a single term for a wide array of social-emotional skills and the “jangle fallacy” as the use of two distinct terms refers to the same skill (Jones et al., 2016). Point of fact, Jones and colleagues (2016) identified 57 different terms related to “self-confidence”. This lack of consistency in terminology has been cited by critics (e.g., Effrem & Robbins, 2019) and advocates alike (e.g., Berg et al., 2017; Blyth et al., 2018; Jones et al., 2019; Jones et al., 2016) as an area of concern.

This lack of consistency with terminology has led some researchers to state that SEL has “emerged as an umbrella term for a number of concepts, including non-cognitive development, character education, 21st century skills, and trauma-informed learning, among others” (Jones et al., 2021, p. 1).

As a response to the differing and conflicting terminology in the field of social-emotional learning, Jones and colleagues (2019) at the Harvard Graduate School of Education and the associated Ecological Approaches to Social Emotional Learning (EASEL) Laboratory, have extensively examined SEL frameworks and competencies, designing the Taxonomy Project, also called the Rosetta Stone of the field. The Taxonomy Project is designed as a translator for the field that provides a set of interactive online tools which were developed to help stakeholders make sense of and navigate the plethora of SEL frameworks, regardless of their differences in terminology (Jones et al., 2019). The primary goal of the Taxonomy project is to produce accessible tools that can advance the field by improving effectiveness, accessibility, coordination, and communication (Jones et al., 2019). Importantly, providing clarification for terminology can aid in not only determining what skills should be called but can aid in
developing consensus among researchers, practitioners, and policymakers about what skills are important.

Arguably, the field of social-emotional learning now serves as the coordinating prevention framework for students to develop social-emotional competencies, which can reduce problem behaviors and enhance academic development. There are many ways to realize the vision of individuals developing healthy social-emotional competence and problem-solving skills to lead joyful and fulfilling lives with each approach differing in terminology, emphasizing different competencies, and prioritizing different components. Furthermore, each approach to social-emotional learning is unique in the content it includes, how that content is presented, and how quality implementation is sustained in a school organization over time (Brackett et al., 2015). Although there is minimal discussion in the research literature, each SEL framework also utilizes a variety of theoretical orientations. The next section will examine three different social-emotional learning frameworks that provide important historical foundations for the field. These frameworks include the first social-emotional learning framework by Elias and colleagues (1997), a developmental-contextual framework by Jones and Bouffard (2012), and a framework from Collaborative for Academic, Social, and Emotional Learning (CASEL, 2020b). Each framework will be detailed in order to provide deep background to the roots of this study.

**SEL Framework by Elias and colleagues (1997)**

The field of social-emotional learning was first introduced in print in the book *Promoting Social and Emotional Learning: Guidelines for Educators* (Elias et al., 1997). This book was pivotal in beginning to define the field and delivering practical guidance for establishing quality social and emotional education programming. Numerous authors were involved (e.g., Zins, Weissberg, Frey, Greenberg) as well as decades of action research which was conducted with
thousands of teachers and hundreds of thousands of students before publication (Elias et al., 1997). Elias and colleagues (1997) defined social and emotional competence as “the ability to understand, manage, and express the social and emotional aspects of one’s life in ways that enable the successful management of life tasks such as learning, forming relationships, solving everyday problems, and adapting to the complex demands of growth and development” (p. 2).

The now commonly utilized term, social-emotional learning, was defined as “the process through which children and adults develop the skills, attitudes, and values necessary to acquire social and emotional competence” (Elias et al., 1997, p. 2). In other words, these initial definitions focused on the process of learning (i.e., social-emotional learning) and developing social-emotional competence. Importantly, these definitions indicate that learning social-skills and building social-emotional competence is a life-long process that develops over time.

Elias and colleagues (1997) conceptualized four major domains of SEL: 1) life skills and social competencies, 2) health-promotion and problem-prevention skills, 3) coping skills and social support for transitions and crises, and 4) positive, contributory service. The life skills and social competencies domain includes generic life, health, citizenship, and workplace skills, including self-control, decision making, stress management, problem solving, and appropriate assertiveness (Elias et al., 1997). This social competence domain also includes the skills that are foundational to social interactions, including setting goals, discovering personal meaning and purpose, and accessing one’s own creativity (Elias et al., 1997). Social-competence is paramount to success in school, work, and the community and shortcomings in this domain may hinder success in areas. The second domain, health-promotion and problem-prevention skills, concentrates on reducing the likelihood of experiencing specific problems, such as drug use, violence, AIDS, sexually transmitted diseases, and suicide attempts, by providing context-
specific information related to a particular problem or risk area (Elias et al., 1997). Elias and colleagues believed that unified SEL programming could address the underlying causes of problem behavior and replace the often ineffective “categorical prevention programs” that were commonly utilized during the 1990s (Greenberg et al., 2003). The third domain, *coping skills and social support for transitions and crises*, involves the capacity to deal with stressful life events and the abilities to cope, reduce tension, and ask for support with life changes and loss (Elias et al., 1997). In many ways, society has become increasingly complex, which emphasizes the importance of coping skills in this domain. Lastly, *positive, contributory service*, includes the development of leaders and volunteers who can serve a complex, interdependent, and diverse community (Elias et al., 1997). Our communities all need passionate, hardworking, humble, and skilled leaders and volunteers who strive to lead by example and improve the lives of others. Elias and colleagues (1997) recommend that these domains of social and emotional competence be addressed at every grade level, as social and emotional skills are learned over time after ongoing exposure and practice, and as new skills are developed they can be combined to address increasingly complex challenges.

Elias and colleagues (1997) theorized that success in these four SEL domains requires an integration of skills related to *emotions*, *thinking*, and *behavior*. Over time, children and adolescents develop their skills and are able to apply them to more complex situations (Elias et al., 1997). Emotional skills are those related to emotional awareness of others and oneself, identifying and verbalizing emotions, and modulating one’s emotions in response to varying situations (Elias et al., 1997). Skills related to thinking include utilizing a social decision-making and problem-solving strategy that includes determining alternative solutions to problems and considering long-term and short-term consequences, while reflecting on and improving the
utilization of particular coping strategies (Elias et al., 1997). Moreover, self-control skills are necessary for engaging in thoughtful decision-making and problem-solving (Elias et al., 1997). Although presented separately, in actuality these skill areas of emotion, cognition, and behavior are integrated, with overall social-emotional functioning being a byproduct of these skills (Elias et al., 1997).

Throughout this pioneering handbook, Elias and colleagues (1997) presented 39 key guidelines for social and emotional education. These guidelines are extensive and include rational, implications, and applications for practice. These guidelines emphasize the importance of theory, a developmental perspective, systematic integration of social-emotional learning practices with academics as well as with family and community settings, high-quality professional development for educators, an explicit and inclusive planning process before implementation, clear implementation criteria with progress monitoring, concrete outcome criteria, and the utilization of program data to refine programs (Elias et al., 1997). These guidelines are highly influential and have continued to inform current social-emotional learning practices (e.g., Mahoney et al., 2021). These guidelines emphasize that as the amount of SEL literature and resources increases, it will be even more important to have a consistent framework and approach to effective SEL instruction, rather than “picking bits and pieces” in a “smorgasbord approach” (Elias et al., 1997, p. 47).

A Developmental- Contextual Framework by Jones & Bouffard (2012)

Jones and Bouffard (2012) developed an organizational framework of social-emotional learning that is specifically rooted in developmental-contextual models, which are based on research and developmental theory. It is noted that this framework is adapted from collaborative work conducted with Celene Domitrovich as part of the Preschool to Elementary School SEL
Assessment Workgroup, Collaborative for Academic, Social and Emotional Learning (CASEL). Unique to this framework is how explicitly theoretical foundations have influenced its development. In essence, contextual theories emphasize social and cultural factors in learning and development with the most prominent being the contextual theory by psychologist Urie Bronfenbrenner (Schunk, 2012). Bronfenbrenner’s (1977) developmental-contextual model views development as occurring in a nested set of contexts or layers of the environment, each contained within the next. These layers of the environment range from the microsystem, the most influential immediate setting of the family, to the macrosystem, society’s formal and informal culture and ideologies (Bronfenbrenner, 1977).

The Jones & Bouffard (2012) model of social-emotional learning includes SEL skills, short-term outcomes, and long-term outcomes. In the center of this framework are the conceptual categories of SEL skills, which are emotional processes, social/interpersonal skills, cognitive regulation (Jones & Bouffard, 2012) as well as the recent additions of identity, values, and perspectives (Jones et al., 2021). The first three domains (i.e., cognitive, emotion, and social) encompass the traditional SEL skills that children and adolescents are able to learn, practice, and put to use in their daily lives (Jones et al., 2021). Emotional processes include emotional knowledge and expression, regulation of behaviors and emotions, and perspective-taking as well as empathy (Jones & Bouffard, 2012). Social and interpersonal skills include prosocial behaviors, understanding social cues and others’ behaviors, interacting positively with others, and navigating social situations (Jones & Bouffard, 2012). Cognitive regulation encompasses attention control, working memory, cognitive flexibility, and inhibiting inappropriate responses (Jones & Bouffard, 2012).
Values, perspectives, and identities are part of a “belief ecology” that serves as an internal guide that directs how one uses the skills included in the cognitive, social, and emotional domains (Jones et al., 2021). The values domain involves a set of skills, habits, and character strengths that support the development of values, including ethical, performance, civic, and intellectual values (Jones et al., 2021). Gratitude, optimism, openness, and enthusiasm/zest are examples of the perspective domain, which is the set of attitudes, mindsets, and outlooks that influence how children and adolescents respond to events and interactions throughout the day (Jones et al., 2021). Identity has been conceptualized as how individuals view themselves and their abilities, with Erikson and Erikson (1981) stating that “identity really means defining yourself beyond being your parents’ child” (p. 254). Jones and colleagues (2021) indicate that individuals can better cope with challenges and build positive relationships when they feel good about themselves, sure about their place in the world, and confident in their ability to learn, grown, and overcome obstacles. Additionally, if a child believes that they can grow and change through hard work they will be better able to cope with discouragement and frustration (Yeager & Dweck, 2012; Dweck & Yeager, 2019). Self-knowledge, purpose, self-efficacy, growth mindset, and self-esteem are included within the identity domain (Jones et al., 2021).

The short-term outcomes identified in this framework include reductions in aggression and depression and increases to attention and social competence with long-term outcomes including increases to general mental health, positive behavior, and academic achievement, among others (Jones & Bouffard, 2012). This framework focuses primarily on the school and classroom contexts, notably SEL implementation and school culture and climate, but also includes the community context and district, state, and federal policies (Jones & Bouffard, 2012). Additionally, it is important to consider that school context factors and student SEL skills are
influenced by teacher social-emotional competence and pedagogical knowledge (Jones & Bouffard, 2012). It is highly important to include short-term and long-term outcomes within an organizational framework for social-emotional learning in order to emphasize the need for assessment and monitoring of social-emotional competence. This is also particularly pertinent as much of the focus of social-emotional learning in schools has been on providing a once-a-week stand-alone lesson without implementation monitoring or assessment.

Furthermore, this framework by Jones and Bouffard (2012) emphasized integrated approaches to SEL development and stressed the need to shift from stand-alone SEL programming approaches to full integration. Notably, it is relatively rare that social-emotional learning practices are integrated into daily practice in meaningful ways (Jones & Bouffard, 2012). In many schools there is insufficient dosage of social-emotional content and what is provided has a sole focus on classrooms and is often fragmented with limited staff training (Jones & Bouffard, 2012). In order to shift to a more integrated approach to social-emotional learning there must be collaboration among policymakers, educators, families, and community practitioners to address competing demands in schools, limited professional development structures, and the need for high-quality data (Jones & Bouffard, 2012).

Jones and Bouffard (2012) recommended four principles of SEL development that can drive more effective school-based approaches: 1) continuity and consistency are essential for SEL skill development, 2) social, emotional, and academic skills are interdependent, 3) SEL skills develop in social contexts, and 4) classrooms and schools operate as systems. Critically, social-emotional learning skills develop in complex systems of contexts, interactions, and relationships (Jones & Bouffard, 2012). Although there has been much societal discussion and debate regarding the importance of academic versus social-emotional skills, this is actually a
false dichotomy as there are decades of research that show social, emotional, and academic skills are interrelated (Jones et al., 2012). To achieve positive outcomes for students, school systems must take a systems approach to promoting SEL that is designed to meet the individual needs and contexts of schools and communities (Jones & Bouffard, 2012).

The CASEL Framework of Social-Emotional Learning (2020)

One of the most prominent frameworks of social-emotional learning that concentrates on the school environment was developed by the Collaborative for Academic, Social, and Emotional Learning (CASEL). In 1994, CASEL was launched at the Fetzner Institute conference as an organization with the mission to help establish evidence-based social-emotional learning as an essential component of education (Weissberg et al., 2015). CASEL endeavored to increase awareness about the need for and the effects of systemic efforts to promote SEL as well as to facilitate the implementation, ongoing evaluation, and refinement of comprehensive social-emotional learning in preschool through high-school (Elias et al., 1997). CASEL aspired to create a unified framework for prekindergarten to high schools that is based on a cohesive, high-quality, and evidence-based practices which enhance the social-emotional development and academic performance of all students (Weissberg et al., 2003). Notably, all nine of the co-authors of the first formal SEL framework presented by Elias and colleagues (1997) in Promoting Social and Emotional Learning: A Guideline for Educators were or are CASEL collaborators.

CASEL (2020b) defines SEL as “the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (CASEL, 2020b). Furthermore, CASEL (2020b) states that SEL can address various forms of inequity and
empower young people and adults to thrive and contribute to safe, healthy, and just communities. This definition of social-emotional learning was updated in 2020 and emphasized the identities, strengths, and experiences of all students, including those who have been marginalized in society and our education systems, and must be recognized and supported in systematic ways. Within CASEL’s framework (2020b) there are five core social and emotional competencies that are broad, interrelated areas that support learning and development: self-awareness, self-management, social awareness, relationship skills, and responsible decision making. In essence, these competencies focus on understanding oneself and others in order to build skills to solve problems. Within this framework, self-awareness is conceptualized as the ability to understand one’s emotions, thoughts, and values as well as one’s strengths and limitations and how they influence behavior in different contexts (CASEL, 2020b). This domain also includes identifying one’s own personal, cultural, and linguistic assets and integrating personal and social identities, as well as examining prejudices and biases (CASEL, 2020b). Furthermore, high levels of self-awareness require one to understand the connections between thoughts, feelings, and actions (CASEL, 2020b). The domain of self-management also relates to oneself but focuses on the management of emotions, thoughts, and behaviors in order to achieve one’s goals and aspirations (CASEL, 2020b). The management of self includes such skills as being able to manage stress, delay gratification, use planning and organizational skills, and motive oneself to set personal and collective goals (CASEL, 2020b).

The CASEL framework of social-emotional learning also includes the domains of social awareness, relationship skills, and responsible decision making. Social awareness is the ability to understand and empathize with the perspectives of others, including with those from diverse backgrounds, cultures, and contexts (CASEL, 2020b). This dimension also includes the
capacities to feel compassion for others, show concern for the feelings of others, and understand and express gratitude (CASEL, 2020b). *Relationship skills* involve the abilities to establish and maintain healthy and supportive relationships, including demonstrating cultural competency and navigating settings with differing social and cultural demands and opportunities, communicating clearly, listening actively, and working together to problem solve and negotiate conflict constructively (CASEL, 2020b). Additionally, the relationship skills domain involves showing leadership, offering or seeking support and help when needed, and advocating for the rights of others (CASEL, 2020b). * Responsible decision-making*, the final CASEL competency, includes the knowledge, skills, and attitudes to make constructive and caring choices about one’s own behavior as well as interactions across diverse situations (CASEL, 2020b). When making decisions, one must be able to analyze information, data, and facts and identify solutions for personal and social problems as well as anticipate the consequences of one’s actions (CASEL, 2020b). Underlying each of these competencies is a developmental perspective that espouses how social and emotional competencies are expressed and enhanced at different ages (CASEL, 2020b). Furthermore, the social, emotional, and cognitive developmental levels of students should inform the design of social emotional standards, instruction, and assessment (CASEL, 2020b).

In addition to the developmental perspective and competencies described, the CASEL (2020b) framework emphasizes equitable learning conditions and an integrated systemic approach. Each of the five CASEL (2020b) competencies stresses utilizing social-emotional learning practices to support the identities, strengths, and experiences, of all children, including those who have been marginalized in our education system. Although social-emotional learning cannot solve the “longstanding, and deep-seated inequities in the education system, it can create
the conditions needed for individuals and schools to examine and interrupt inequitable policies and practices, create more inclusive learning environments, and reveal and nurture the interests and assets of all individuals” (CASEL, 2020b, p. 4). A vast majority of our broader societal systems are deeply ingrained in inequities based on race, ethnicity, class, language, gender identity, sexual orientation, and other factors that impact the social-emotional competence of children and adults, alike (CASEL, 2020b).

CASEL (2020b) advocates for a systemic social-emotional learning approach that creates the conditions for all students to learn and practice social-emotional learning competencies. Using the decades of action research that was conducted by CASEL, a systemic SEL framework was developed by eleven CASEL collaborators. This framework depicts the process by which systemic SEL develops (Mahoney et al., 2021). The process begins with four coordinated sets of practices that establish evidence-based practices and theories of action (Mahoney et al., 2021). These four practices include building foundational support and planning, strengthening adult SEL competencies and capacity, promoting SEL for students, and practicing continuous improvement (Mahoney et al., 2021). Importantly, these principles have been part of the original vision for SEL (e.g., Elias et al., 1997; Greenberg et al., 2003). Additionally, each of these practices can be utilized at the school-wide, district-wide, and state-wide levels (Mahoney et al., 2021). From the school-wide level perspective, building foundational support and planning, includes establishing a SEL team with broad membership, fostering awareness, developing a shared vision, assessing needs and resources to develop a SEL implementation plan with clear goals, action steps, and assigned ownership (Mahoney et al., 2021). Strengthening adult SEL competencies and capacities involves cultivating a community of adults who engage in their own social-emotional learning, collaborate on strategies for promoting SEL, and model SEL
throughout the school (Mahoney et al., 2021). Promoting SEL for students means developing a coordinated approach for enhancing student SEL within the school, classrooms, homes, and communities (Mahoney et al., 2021). Additionally, practice continuous improvement implies establishing a structured, ongoing process to utilize outcome and implementation data to inform school-based decisions and drive improvements to implementation (Mahoney et al., 2021).

This systematic SEL framework applies the CASEL (2020b) competencies of self-awareness, self-management, social awareness, relationship skills, and responsible decision-making within an ecological framework that includes the classroom factors of SEL curriculum and instruction, school-wide practices and policies, and family and community partnerships (Mahoney et al., 2021). Furthermore, this framework emphasizes short-term (e.g., social and emotional skills, perceived classroom and school climate), intermediate (e.g., positive social behaviors and relationships, academic success, fewer conduct problems, less emotional distress), and long-term outcomes (e.g., high school graduation, college/career readiness, mental health; Mahoney et al., 2021). Systematic social-emotional learning frameworks involve collaboration and cooperation across classrooms, schools, families, and communities as well as alignment of policies, resources, and actions at the state and district levels (Mahoney et al., 2021). Moreover, to maximize student outcomes and address critical concerns regarding educational equity, systematic SEL must utilize clear logic models that include context-specific considerations and specify outcomes (Mahoney et al., 2021).

Summary

Broadly, social-emotional learning is the process through which children – and adults – learn and apply a set of social, emotional, and related skills to solve problems within their lives and enable them to have success in school, work, and life. Interest in social-emotional learning
can be traced back to 1900 (Osher et al., 2016) with major advancements occurring in the 1990s (Greenberg et al., 2003). Since this time, research on social-emotional learning has grown rapidly and there is now a plethora of ways to conceptualize and describe SEL. Each framework of social-emotional learning is unique with different approaches, competencies, and terminology. In fact, social-emotional learning terminology is rife with inconsistencies and is subjected to “jingle and jangle fallacies” (Jones et al., 2016). All three of the frameworks described, the social-emotional learning framework by Elias and colleagues (1997), a developmental-contextual framework by Jones and Bouffard (2012), and a framework from Collaborative for Academic, Social, and Emotional Learning (CASEL, 2020b), provide distinct perspectives on SEL and provide essential context and historical roots of this study.

**The Purpose of Theory**

The importance of theory cannot be overstated. A theory is a scientifically acceptable set of principles which explain a phenomenon, serve as a framework for interpreting environmental observations, and bridge the work of researchers and practitioners (Suppes, 1974). The purpose of theory is to explain, describe, analyze, and predict phenomenon to enhance understanding and add meaning to social constructs (Chijioke et al., 2021). Theory also serves as a systematic way of organizing and interpreting what is known and unknown (Chijioke et al., 2021). Environmental phenomena are reflected in theory and from these observations new research hypotheses can be generated and empirically tested (Schunk, 2012). Hypotheses in theory can be stated as if-then statements, such as if students are praised for their learning progress then their self-confidence and achievement will be raised (Schunk, 2012). Theories without data must be revised and those with data to support hypotheses are strengthened (Schunk, 2012). Furthermore, without theories, research findings could be viewed as disorganized collections of
data without a framework (Schunk, 2012). A theory can also provide a proposed narrative regarding the causes of a phenomenon, which can be refuted and refined through continued observation and research (Brackett et al., 2015).

Chijioke and colleagues (2021) describe an apt theory as one that gives direction to research by providing clarity and logicality to the identified problem and connects concepts, variables, and hypotheses. Prominent philosopher of the 20th century, Karl Popper (1957) explored this notion of an apt or good theory decades earlier, asking “How do we jump from an observation statement to a good theory? (p. 184). Popper’s philosophy of science states that pure observation is a falsehood, as “observation is always selective and needs a chosen object, a definite task, an interest, a point of view, a problem” (Popper, 1957, p. 172). Popper (1957) explained that an underlying problem always influences observations and thus a good theory begins with a problem and allows for the theory to explain the observations which underlie the problem. Popper (1957) goes on to summarize that a good theory incorporates all relevant ideas and empirical evidence about a phenomenon into a single, integrated statement of knowledge, which can be used to develop a field of thought (Popper, 1957). In other words, theory facilitates more than observations and descriptions of behavior as it enables systematic examination, which allows for more precise descriptions and explanations (Brackett et al., 2015).

Theory is not simply an organizational structure. As a modern pioneer of social, organizational, and applied psychology in the United States, Kurt Lewin (1945), espoused that “nothing is as practical as a good theory” (p. 129). Lewin (1945) embraced the knowledge that “neither scientific nor practical results can be expected without adequate development of the theoretical aspect of the work” (p. 132). Moreover, Lewin (1945) was devoted to the development of scientific concepts, methods, and theories which could lead to a deeper
understanding of academic and applied fields. Lewin explained that “a close link with practice can be a blessing for the development of theory. After all, the practitioner is interested in change experiments because [they] want to reach certain objectives. In the long run, the most penetrating theoretical experimental analysis will prove to be the most practical procedure; as it has proved to be in the physical sciences.” (Lewin, 1945, p. 133). Brackett and colleagues (2015) echo this sentiment in social-emotional learning literature, stating that “theory serves as a practical guide and starting point to many endeavors” (Brackett et al., 2015, p. 21).

Importantly, the theoretical approach of social-emotional learning programming informs how programming is designed and implemented in practice; however, it is not enough for theories to be hypothesized, these theories must have empirical data from practical implementation to demonstrate the aptness of the theory. Philosopher, Patrick Suppes (1974) depicted a similar sentiment, stating “I do not want wise [individuals] to design or build the airplane I fly in, but rather technical [individuals] who understand the theory of aerodynamics and the structural properties of metal. And so it is with education. Wisdom we need, I will admit, but good theories we need even more. I want to see a new generation of trained theorists and an equally competent band of experimentalists to surround them” (p. 9). As theory generates and stimulates the formation of new ideas and practical applications in turn influence theory, student outcomes can only be strengthened.

**Theoretical Foundations of Social-Emotional Learning**

The role of theory in research and social-emotional learning programming cannot be overemphasized, despite the lack of prominence in the literature. Social-emotional learning experts agree that theory is essential, stating that approaches can only be considered “high-quality” when based on sound theoretical foundations (Zins et al., 2004). The importance of
theory remains evident, as theory is the roadmap that provides clarity and structure (Lewin, 1945). Theory has also been called the supporting structure or skeletal framework upon which social science revolves (Chijioke et al., 2021). Although there is robust evidence that social-emotional learning programming demonstrates positive impacts on mental health, behavior change, and educational outcomes (e.g., Durlak et al., 2011; Wigelsworth et al., 2016) there has been little exploration into the core components of SEL content or pedagogy (Wigelsworth et al., 2022). Since social-emotional learning curriculums are typically evaluated at the program level, with evaluation evidence being based on the summative results from the delivery of the curriculum as a whole, this allows us to know which programs are effective, yet little is known about what in particular makes them effective (Wigelsworth et al., 2022).

Within the context of SEL, the notable phenomenon in question is for children and adults to develop the skills needed for success in life (Brackett et al., 2015). There is not one predominate theory that informs this question nor the field of social-emotional learning. In fact, social-emotional learning has been defined and conceptualized from many different perspectives across a variety of specialties within psychology, special education, and applied behavior analysis (Gresham, 2018). This is especially evident as there are many ways to realize the vision of integrated social-emotional learning programming with each approach to SEL differing in content, how that content is presented, and how the content is implemented and sustained over time (Brackett et al., 2015).

Social-emotional learning initiatives strive to enhance social, emotional, and academic growth and it is critical to understand how individuals learn. Although there is not one definition of learning, most educational professionals would agree that “learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other
forms of experience” (Schunk, 2012, p. 3). Beyond this definition of learning, there are many differences in conceptualization (Schunk, 2012). Two of the most prominent theories are behavioral and cognitive. Behavioral theories stress the role of the environment in learning and how stimuli are arranged, presented, and reinforced (Schunk, 2012). More specifically, behavioral theories consider reinforcement history (i.e., the extent to which an individual was reinforced in the past for performing a behavior) and developmental status (i.e., what an individual is capable of doing given their level of development; Schunk, 2012). Whereas cognitive theories of learning acknowledge that environmental conditions influence learning but emphasize the role of the individual’s thoughts, beliefs, attitudes, and values (Schunk, 2012). From the cognitive perspective, learner thoughts of, “Why is this important?” or “How well am I doing?” can affect learning. 

Although there is minimal research that examines the underlying theoretical foundations of social-emotional learning, some literature has begun to analyze content and instructional practices from leading SEL programs (e.g., Jones et al., 2021; Lawson et al., 2019; Wigelsworth et al., 2022). These analyzes will be essential in determining what in particular makes social-emotional learning curriculums effective (Wigelsworth et al., 2022). Theories of behavior, cognition, development, information processing, and emotion all impact the content of social-emotional learning curriculums, how the curriculum is presented, and how the content is implemented and sustained over time. Although the literature regarding direct applications of theory in social-emotional learning programs is sparse, each of the aforementioned theories will be described and the applications of each theory on social-emotional learning programming components will be detailed.

**Behaviorism**
The dominant psychological theory of learning during the first half of the twentieth century was behaviorism, which posits that behaviors are influenced and learned from external forces rather than consciousness or internal forces (Watson, 1913/1994; Watson, 1924/1997). The development of behaviorism was influenced by the learning theories of Edward L. Thorndike, Ivan Pavlov, and Edwin Guthrie as each viewed learning as a process of forming associations between stimuli and responses (Schunk, 2012). Thorndike’s Law of Effect indicated that the greater the satisfaction after a given response, the greater likelihood that the same response would occur again and conversely, the greater the discomfort the less likely that response would occur (Thorndike, 1912). Thorndike believed that the most fundamental learning includes the formation of connections between events and responses that manifest themselves behaviorally (Schunk, 2012) with this theory of connectionism being dominant in the United States during the first half of the twentieth century (Mayer, 2003). Additionally, Ivan Pavlov’s (1932) classical conditioning advanced a behavioral perspective which posited that any perceived stimulus can be conditioned to any response. Edwin Guthrie’s (1940) contiguity principle suggested the need for a close and immediate pairing between stimulus and response with minimal emphasis on rewards or consequences. Moreover, Guthrie (1940) theorized that the association between the pairing occurs on the first experience, and thus termed “one trial learning.” Although each of these theories has been refuted, they remain highly influential to the development of psychology and behaviorism (Schunk, 2012).

John B. Watson, the founder and champion of modern behaviorism, believed that psychology must be structured as a physical science that examines observable and measurable phenomena (Watson, 1913/1994). Watson introduced his pioneering “behaviorist manifesto” entitled, “Psychology as the Behaviorist Views It,” on February 24, 1913, at a meeting of the
New York Branch of the American Psychological Association held at Columbia University (Samelson, 1981). This paper would later be referred to as the founding of behaviorism and was deemed the “most important” paper published in the Psychological Review in its first half-century (Samelson, 1981). Watson espoused that in the behaviorist view, the theoretical goal of psychology is the prediction and control of behavior, without the need for introspection nor to consider consciousness, mental states, the mind, nor any introspection (Watson 1913/1994). Pointedly, “psychology in the behaviorist view is a purely objective, experimental branch of natural science which needs introspection as little as do the sciences of chemistry and physics” (Watson, 1913/1994, p. 253). The assumption of this approach is that cognitive activity and behavior are fundamentally different (Watson, 1924/1997).

Watson’s (1913/1994, 1924/1997) groundbreaking work emphasized the importance of conditioning theories that explain behavior and learning in the terms of environmental events, which is evident in the work of B. F. Skinner (Schunk, 2012). The best-known conditioning theory is that of Skinner’s operant conditioning. Skinner “observed that behavioral concepts (e.g., reinforcement) described functional relations among responses (e.g., operants) and stimuli (e.g., reinforcers”; Morris, 2003, p. 235). In other words, features of the environment serve as cues for responding. Reinforcement strengthens responses and increases the likelihood that they will reoccur whereas consequences that are punishing decrease behavior. In essence the field of applied behavior analysis is the application of Skinner’s work (Morris, 2003), which is founded in the understanding that humans and other organisms tend to repeat behaviors that are followed by particular consequences (Gresham, 2018). The field of applied behavior analysis theorizes that behavior can be strengthened through positive reinforcement by adding something such as a tangible reward and can also be strengthened through negative reinforcement, typically by
removing something aversive (Gresham, 2018). Applied behavior analysis includes a three-term contingency that describes the important relation that exists between antecedent stimuli, the behavior, and its consequence (i.e., the so-called A-B-Cs). Applied behavior analysts identify the conditions that reinforce (positively or negatively) the occurrence of specific problem behaviors that need to be modified with functional behavior assessment being central to the identification of environmental conditions that are functionally related to the occurrence of problem behavior (Gresham et al., 2001).

Applications of Behaviorism on Instruction and Social-Emotional Learning Programming

One of the major goals of social-emotional learning programming is to change behavior, that of students and adults as well as the systems in which programming is implemented (Brackett et al., 2015). Behavioral theories provide important guidance on behavior change. For instance, the principles of operant conditioning can be applied to different aspects of teaching and learning by utilizing practice opportunities to strengthen responses to stimuli (Schunk, 2012). Opportunities for practice, including role-plays and skill practice, are an important instructional method that is used in many social-emotional learning curriculums. More specifically, when Jones and colleagues (2021) analyzed 33 leading SEL programs for children in Prekindergarten-Grade 5, they found that across programs 0% to 38% of activities in each program included roleplays with 1% to 34% being skill practice. In this analysis, role play included acting/dramatic demonstrations of an SEL theme, concept, or skill and skill practice was defined as using SEL skills, strategies, and behaviors that are applicable to real life situations (Jones et al., 2021). The Social Skills Improvement System (26%), the Incredible Years (30%), and the Kimochis (38%) curriculums have a high focus on role plays as relative to most other programs in the analysis (Jones et al., 2021). The PAX Good Behavior Game (32%)}
and Responsive Classroom (34%) had a high focus on skill practices (Jones et al., 2021). Role play and skill practice activities are consistent with behavioral theories, as these exercises provide multiple opportunities to provide consistent repetition that is necessary for effective reinforcement of behavioral response patterns. Additionally, a majority of SEL programs provide or suggest supplementary lessons or activities (Jones et al., 2021), which provide additional opportunities to practice skills and receive feedback. The Second Step curriculum in particular is unique in that it is one of only eight programs (24%) to require the use of short follow-through activities that enable students to practice skills and lesson concepts throughout the week (Jones et al., 2021).

In the behaviorist view, learning occurs within environmental events with knowledge largely being a mechanical response to environmental stimuli (Schunk, 2012). This is often why behavioral teaching methods are the most effective with “skill and drill” exercises that have a “correct” response or easily memorized content. Behavioral teaching methods also heavily rely on the use of positive reinforcements, including verbal praise, good grades, and tangible prizes. Behavioral teaching methods require a certain level of individualization to determine the appropriate reinforcement schedule as well as the instructional stimuli which precede behavior (Cook, 1993). Although behavioral teaching methods are most effective with concrete tasks, complex skills can be established by gradually shaping the behaviors using consistent repetition, small progressive sequences of tasks, and continuous positive reinforcement (Cook, 1993; Schunk, 2012). Additionally, applied behavior analysis and positive replacement training can be used to replace completing problem behaviors with prosocial behaviors that serve the same function (Gresham, 2018). As such, behaviorist pedagogy predominately applies to instructional methods for students, rather than learning content. Theories of behavior change are highly
important to social-emotional learning programming, as these theories explain what motivates and sustains behavior change, which can guide the integration of social-emotional learning strategies at the individual and program levels (Brackett et al., 2015). Furthermore, the natural consequence of effective SEL competencies are often positive social interactions, which can motivate and sustain behavior. Additionally, behavioral approaches in SEL curriculums are designed to create opportunities for positive social interactions, thus making social exchanges less haphazard and more frequent, which is particularly impactful for children with limited social skills and poor social experiences.

**Cognitive & Developmental Theories**

Cognitive theories of learning acknowledge that environmental conditions influence learning but emphasize the role of the individual’s thoughts, beliefs, attitudes, and values (Schunk, 2012). From the cognitive perspective, learner thoughts of, “Why is this important?” or “How well am I doing?” can affect learning. Furthermore, how students attend to, rehearse, transform, code, store, and retrieve information is critically important (Schunk, 2012). The ways in which students process information determines what, when, and how they learn as well as how they will use their learning (Schunk, 2012). Importantly, cognitive theories focus on how children construct their understandings of themselves and the world around them. Importantly, development is intimately linked with learning as each principle of learning could be prefaced with assuming proper level of development (Schunk, 2012). Child developmental theories explain how children change and grow. Development refers to changes over time that follow an orderly pattern and enhance survival. There are many perspectives on development, including biological, psychoanalytic, behavioral, cognitive, and contextual (Schunk, 2012). The most prominent cognitive and developmental theories include those by Albert Bandura, Jean Piaget,
Lev Semenovich Vygotsky, and Jerome Bruner, as well as information processing theory (Schunk, 2012). Each of these theories and their applications to social-emotional learning programming will be detailed next.

**Bandura’s Social Learning Theory & Social Cognitive Theory**

In the late 1950s and early 1960s, behavioral theories were being challenged, with studies by psychologist Albert Bandura and colleagues among those confronting the premises of behaviorism (Schunk, 2012). Bandura (2019) began his career during the peak of behavioral theory and within this context he developed social learning theory, which later extended into social cognitive theory. Bandura (1962) posited that even in situations where stimuli can elicit the desired behavior, social models can shorten and accelerate the process of learning. Bandura’s (1977) social learning theory hypothesized that learning occurs in a social environment and that individuals acquire knowledge, rules, skills, strategies, beliefs, and attitudes from others. Social learning theory assumes that modeling influences learning and emphasizes learning by direct experience and observing others (Bandura, 1977). There are four interrelated subprocesses of modeling, those of attention, retention, motoric reproduction (i.e., symbolic representations guide overt actions), and reinforcement and motivational processes (Bandura, 1977). According to social learning theory, behavior is learned in some form before it is performed (Bandura, 1977). Another key component of Bandura’s (1977) work is that of cognitive self-regulation. Cognitive self-regulation discusses factors such as predictive knowledge, self-observation, self-attributions, self-concept, self-reward, and self-efficacy (Bandura 1977).

Social cognitive theory, which was presented in 1986 by Bandura in the book *Social Foundations of Thought and Action: A Social-Cognitive View*, examined an expansive range of content from cognitive and language development to emotions to crime and stress (Locke, 1987).
Self-efficacy is paramount to this book and examines one’s judgements of one’s own ability to carry out specific actions, including the estimate of skills, creativity, adaptability, and to maintain self-control under stress (Locke, 1987). Bandura defined self-efficacy as one’s beliefs about their capacities to perform and to design and enact a course of action (Locke, 1987). Self-efficacy was shown to be tied to performance effectiveness in a wide array of situations (Locke, 1987). Furthermore, Bandura described human behavior within a framework of triadic reciprocality, or reciprocal interactions among behaviors, environmental variables, and personal factors such as cognitive, affective, and biological events (Bandura, 1990). Social cognitive theory emphasizes the constructs of social interactions, self-regulation, self-efficacy, and modeling (Abdullah et al., 2020) with the most ambitious applications working towards preserving a sustainable environmental future (Bandura, 2019).

**Applications of Social Learning Theory and Social Cognitive Theory on Instruction and Social-Emotional Learning.** Bandura’s (1977) social learning theory promoted the understanding that learning often occurs inactively and vicariously through others. Cognitive modeling is an application of social learning theory. Modeling is a highly recommended practice (Schunk, 2012) that includes modeled explanations and verbalized demonstrations of a skill (Meichenbaum & Goodman, 1971) and is commonly used in social-emotional learning curriculums. Errors may be built into modeling demonstrations to show students how to recognize and cope with them (Schunk, 2012), which is consistent with the use of modeling in social-emotional learning curriculums. Social-emotional learning programs include teacher modeling as well as peer modeling. Many social-emotional learning curriculums include scripted lessons that include support for teacher modeling (e.g., Second Step, Getting Along Together, PATHS, SECURe, Social Decision Making/Problem Solving; Jones et al., 2021). Others include
tools to assess implementation, including the teacher practice of modeling (e.g., Responsive Classroom, Open Circle; Jones et al., 2021). Another SEL strategy, The PAX Good Behavior Game, includes an optional class-wide peer tutoring approach that can be used to reinforce academic material, promote confidence in academic abilities, and provide peer modeling and support by pairing students with strong self-regulation and co-regulation skills with those who may struggle in these areas (Jones et al., 2021). One program, Playworks, emphasizes modeling inclusion on the playground by providing safe and inclusive play and physical activity to children at recess and throughout the school day (Jones et al., 2021).

Social cognitive theory, specifically self-efficacy, is pertinent for students and adults alike. Multiple curriculums demonstrate improvement of self-efficacy for students (e.g., Competent Kids/Caring Communities, Responsive Classroom) or a high focus on the area (e.g., Girls on the Run, Mind Up, Positive Action, Sanford Harmony Jones et al., 2021). One curriculum in particular, We Have Skills, which is a video-based social skills program for Grades K-3, has a particularly high focus on self-efficacy for students, as compared to other SEL programs (Jones et al., 2021). Self-efficacy activities in this program primarily focus on reminding students that they can improve through practice (Jones et al., 2021). For example, students begin and end every lesson by chanting, “the more you practice, the better you get!” (Jones et al., 2021). Another example includes teaching students about the importance of approaching difficult tasks with a positive attitude by having them discuss how every difficult task is a learning opportunity (Jones et al., 2021).

Traditionally, SEL programs target student-level outcomes yet there has been increased awareness on the importance of social-emotional competence of adults with the social and emotional competence of adults being recognized as a critical component of high-quality SEL
(Jones et al., 2021). If educators do not understand, believe in, or possess social-emotional skills, it will be difficult to teach and model these skills for students. Therefore, it is essential to align SEL programming and content with the values, culture, needs, goals, and comfort-level of the adults delivering it (Jones & Kahn, 2017). Despite the importance of adult SEL, there has often been a focus on improving student skills with the role of adults and their competencies being largely ignored (Jones & Doolittle, 2017). Importantly, SEL for adults is especially important in settings where adults experience persistently high levels of stress and burnout that tax their own SEL skills (Jones et al., 2021).

Self-efficacy is an important component of adult SEL. Pointedly, teacher social-emotional skills have predicted student motivation, academic performance, and SEL outcomes (Ruzek et al., 2016). Subsequently, many of the quality of SEL programs rely on the development of teacher social-emotional competencies and beliefs (Osher et al., 2016; Yoder, 2014). Adult beliefs include self-efficacy, or teachers’ beliefs about their own abilities to make a difference in student learning, which influence daily instructional decisions (White et al., 2022). Furthermore, research suggests the use of high-quality professional development can aid teachers in developing their own SEL competence (Beauchamp et al., 2014). As such, it is highly important to “invest in adult self-awareness, knowledge, and skills by providing training and resources that encourage adults to build their own SEL skills, examine and address implicit biases, and engage in culturally sustaining and equity-promoting practices” (Jones et al., 2021, p. 46). Multiple SEL programs, (e.g., 4Rs, Conscious Discipline, Leader in Me, Mind Up, Positive Action, RULER, SECURE, WINGS) include professional development and training on adult social-emotional competence with others offering additional add-on programs (e.g., Second Step).
Piaget’s Theory of Cognitive Development

Highly influential psychologist, Jean Piaget, developed his theories about the fixed sequence of children's cognitive development using structured observation. Piaget and other stage theorists operated from the assumption that stages are discrete, qualitatively different, and separate (Schunk, 2012). The development of cognitive structures is dependent on preceding development with the age or rate at which children progress from one state to another varying by age and culture (Piaget, 1972/2008). Piaget proposed four stages of cognitive development: sensorimotor, preoperational, concrete operational, and formal operational stages (Babakr et al., 2019). The sensorimotor stage begins at birth and lasts until about two years of age (Babakr et al., 2019). During this stage, infants seek to understand objects by using sensory activity with this phase being characterized by object permanence and deferred imitation (Babakr et al., 2019). Piaget believed that infants do not understand hidden objects for the first 8-months of life and thus have a lack of object permanence and cannot perceive objects in the environment if they are not seen (Babakr et al., 2019). Deferred imitation occurs at the end of the sensorimotor stage and is the ability to reproduce an activity that was modeled at some point in the past (Babakr et al., 2019). Piaget’s preoperational stage typically occurs from 2 to 7 years of age and focuses on animism, egocentrism, and conservation (Babakr et al., 2019). The concrete operational stage occurs between 7 and 11 years of age and is defined by the ability to understand concrete things and solve complex problems (Babakr et al., 2019). During this stage, children begin to be able to classify objects into different types (e.g., shape, value, size) and understand that individuals can fit into more than one role at the same time (e.g., mother, grandmother, sister; Babakr et al., 2019). Piaget proposed that when children approach 12 years of age, they enter the formal operational stage and their thinking and understanding develop significantly (Babakr et al.,
Some of Piaget’s later works (e.g., 1972/2008) focus on intellectual evolution from adolescence to adulthood.

Despite the significance of Piaget’s theory, there have been revisions and critiques of cognitive development theory. For example, studies have demonstrated that infants demonstrate many cognitive capabilities earlier than theorized (Bauer et al., 2011), specifically that a child in preoperational stage can distinguish between inanimate and animate objects (Backscheider et al., 1993) and that the formal operational stage is elusive for some adolescents (Higgins-Trenk & Gaite, 1971). Additionally, Piaget’s theory has been critiqued for not observing children from diverse societal backgrounds (Babakr, 2019) as well as for focusing too little attention on the impact of social factors (Tudge & Winterhoff, 1993), although he did acknowledge that cultural context and social interaction affect cognitive development (Piaget 1972/2008). Additionally, there are methodological vulnerabilities with Piaget’s research and these flaws prevent a clear formation of his research problems (Braine, 1962). There are two primary critiques of Piaget’s work, the first being that he does not report his data fully and illustrates it with samples (Braine, 1962). Lilienfeld and colleagues (2001) noted that it is nearly impossible to identify whether Piaget tested children or is describing them hypothetically (Babakr et al., 2019). Secondly, Piaget does not have consistent procedures across subjects (Braine, 1962). Piaget argued that the standardization of his methods would lose the flexibility of inquiring into the reasons for a child’s response (Braine, 1962). Furthermore, Piaget did not provide the race nor ethnicity of his participants and with his limited sample it is not possible to generalize his theories to children of other cultures or countries (Babakr et al., 2019).

Perhaps the most important conclusion from Piaget’s cognitive developmental theory is that children think differently than adults (Babakr et al., 2019). Although this is a common
sentiment today, this was a revolutionary concept (Babakr et al., 2019). A famous expert in the field of child development stated that “many of Piaget’s contributions have become so much a part of the way we view cognitive development nowadays that they are virtually invisible” (Flavell, 1996, p. 202). One researcher even stated, “the influence of Piaget’s work on developmental psychology is like that of Shakespeare’s influence on English literature” (Beilin, 1992, p. 191).

**Applications of Development Theories on Instruction and Social-Emotional Learning.** Piaget’s theory of cognitive development has been foundational in the understanding that children think differently than adults and that students should be active in the learning process. Importantly, Piaget’s theory has informed developmentally appropriate instruction. The theory of developmentally appropriate instruction posits that instruction should be matched to children’s developmental levels (Schunk, 2012). Despite this concept being rudimentary in nature, instructional activities and developmental levels are often mismatched (Schunk, 2012). Developmentally appropriate instruction relies upon the assumptions that 1) knowledge is constructed and never automatic, 2) learning occurs due to the construction of knowledge and integration with current mental structures, and 3) instruction must be designed to foster knowledge construction (Schunk, 2012). Developmentally appropriate instruction is paramount to social-emotional learning curriculums, which is evident in the work by Jones and colleagues (2021). Jones and colleagues (2021) examined 33 leading social-emotional learning programs and identified the typical commonalities and variances between preschool/kindergarten curriculums and elementary curriculums (grades 1-5).

The preschool setting is unique in that there are a multitude of different arrangements, ranging from those incorporated into the public schools and others operating out of childcare
centers, places of worship, or other independent organizations (Jones et al., 2021). Preschool programs may operate on full-day or half-day schedules and attendance may or may not be required (Jones et al., 2021). These differences lead to a wide array of philosophies, approaches to learning and development, content of daily activities, and staff training and experience in the preschool setting (Jones et al., 2021). Regarding SEL program structure in preschool, many social-emotional learning programs are designed exclusively for early learners or have a specialized component for preschool (Jones et al., 2021). Other programs offer prekindergarten versions and elementary school versions, whereas others offer Pre-K lessons as part of a broader PreK-5 curriculum (Jones et al., 2021). Specifically, some social-emotional learning programs focus intensively on adult development and teaching practices as well as skill-building opportunities for students that are highly integrated into everyday classroom activities (Jones et al., 2021). Some SEL programs offer flexible, center-based learning with others following the general format of their elementary curriculums but with greater flexibility in chunking lessons (Jones et al., 2021). In another curriculum lessons are structured around children’s literature that can be integrated into preexisting literacy activities (Jones et al., 2021). In terms of lesson content, preschool and kindergarten SEL lessons and activities have a greater focus on stage-salient skills like attention control, inhibitory control, and understanding social cues (Jones et al., 2021). Preschool lessons in particular, have a greater focus on foundational emotion skills such as emotional knowledge and expression as well as emotional and behavioral regulation (Jones et al., 2021). Furthermore, preschool and kindergarten social-emotional learning lessons and activities have a more frequent use of children’s books and stories, songs/music, teacher-led puppet demonstrations, and kinesthetic/movement activities (Jones et al., 2021).
Developmentally, the elementary grades are a time when students continue to build upon and refine the skills that they developed in early childhood in order to build more sophisticated SEL skills, coping strategies, and vocabulary (Jones et al., 2021). This is also a time when students have an increased need for complex cognitive skills like planning, organizing, and goal-setting (Jones et al., 2021). Students also have a growing capacity to understand the needs and feelings of others and have a need for empathy, social awareness, and perspective-taking (Jones et al., 2021). Elementary years also allow for greater independence, as children do not need to rely as much on adult support for SEL skills and strategies (Dusenbury & Weissberg, 2017).

Regarding lesson content, elementary lessons and activities have an increasing focus on the values and perspectives domains as well as skills like critical thinking, empathy/perspective taking and ethical values (Jones et al., 2021). Additionally, elementary lessons have a greater focus on more complex skills like conflict resolution, performance values, and cognitive flexibility (Jones et al., 2021). In upper elementary (grades 4-5) there is a more frequent use of didactic instruction, discussion, worksheets, and writing activities (Jones et al., 2021). Jones and colleagues (2021) noted that these patterns within SEL curriculums are consistent with what would be expected of developmentally appropriate instructional strategies and how social-emotional learning skills build on each other over time.

Piaget’s theory of cognitive development has further implications for social-emotional learning programming as it emphasizes that students are active constructors of knowledge (Babakr et al., 2019; Barrouillet, 2015; Schunk, 2012). As such, social-emotional learning curriculums should utilize instructional methods that emphasize active engagement and hands-on activities, as does the Second Step Social-Emotional Learning curriculum. With active engagement, students should have opportunities to discover, question, discuss, reflect, and solve
problems themselves (Lefa, 2014). Although Piaget posits that development can proceed without social interaction, activities that include social interaction are useful as students can learn that others may have different perspectives (Schunk, 2012). Examining others’ perspectives is not only important for learning but is particularly crucial for developing social-emotional competence. Furthermore, cognitive conflict or incongruity at reasonable levels can support the progression of student’s skills and development (Schunk, 2012). Notably, as Piaget theorizes, students will progress through the same stages of development, albeit at differing rates, depending on the demands of the context and culture (Lefa, 2014). When teachers have an understanding of the cognitive developmental level of each of their students, they can then adapt their teaching accordingly but always while providing a rich environment (Schunk, 2012). Piaget’s theory also suggests that curriculums with logical steps are important (Lefa, 2014). Importantly, social-emotional learning curriculums should include lessons and activities that require basic understandings as well as extension activities that allow for abstract reasoning and creativity. As has been described throughout this section, Piaget’s theory of cognitive development has been foundational in the understanding that children think differently than adults and that students should be active in the learning process. As such, social-emotional learning curriculums should provide lessons and activities in which students are able to interact and construct meaning while also being developmentally appropriate.

**Vygotsky’s Sociocultural Theory**

Educational psychologist, Lev Semenovich Vygotsky, theorized that the social environment facilitates development and learning. Vygotsky was born in Russia in 1896 and studied many disciplines, including psychology, philosophy, literature, and he also received a law degree (Schunk, 2012). Vygotsky’s approach was to apply Marxist ideas of social change to
language and development (Rohrkemper, 1989); however, some of his views did not align with Stalin-era philosophies and were banned in the Soviet Union until the 1980s, with many works not being published until decades after his death (Schunk, 2012). One of Vygotsky’s central contributions to psychological thought was “his emphasis on socially meaningful activity as an important influence on human consciousness” (Schunk, 2012, p. 242). Vygotsky posited that social interactions are critical, with knowledge being co-constructed between two or more individuals (Schunk, 2012). One of the most long-lasting concepts from Vygotsky, is the zone of proximal development (ZPD), which is defined as the “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). The ZPD reflects the Marxist idea of collectivism and involves “sharing not only of knowledge but of consciousness,” with “those who “know” more, those who have “higher” consciousness share it with those who know less” (Bruner, 1984, p. 94). In Western cultures Vygotsky’s theories have largely been simplified and misunderstood with ZPD commonly being understood as “scaffolding” with the focus on the expertise of the teacher whose role is to provide assistance in advance of the child’s current thinking (Tudge & Winterhoff, 1993). Importantly, the term scaffolding is not a part of Vygotsky’s theory (Puntambekar & Hubscher, 2005) and was first coined by Wood, Bruner, and Ross (1976; Morcom, 2015; Schunk, 2012). When conceptualized, however, Vygotsky intended for the zone of proximal development to have more complexity, with a greater emphasis on what the child brings to the interaction and the broader setting (cultural and historical) in which the interaction takes place (Tudge & Winterhoff, 1993). Vygotsky’s belief was that schooling was important because it allowed individuals to develop greater awareness of themselves, their
language, and their role in the world order (Schunk, 2012). Participation in the cultural world transforms mental functioning rather than simply accelerating processes that would have developed anyway and therefore “the zone of proximal development refers to new forms of awareness that occur as people interact with their societies’ social institutions” (Schunk, 2012, pp. 244-245). In other words, one’s “culture affects the course of one’s mental development” (Schunk, 2012, p. 245).

Applications of Sociocultural Theory on Instruction and Social-Emotional Learning.

Vygotsky’s sociocultural theory emphasizes the significance of culture, the role of language, and one’s relationship and development within the social world. One of the most common applications of Vygotsky’s work is the use of instructional scaffolding, or the process of controlling task elements that are beyond the learners’ capabilities (Schunk, 2012). There are multiple types of instructional scaffolding, which can include adjusting the content, tasks, or materials to provide support for students in the mastery of tasks (The IRIS Center, n.d.b). Scaffolding should support learning by building on the experiences and knowledge of students as they learn new skills and importantly, scaffolded supports are temporary and adjustable (The IRIS Center, n.d.b). Content can be scaffolded by utilizing familiar or highly interesting subject matter so that students can focus on the lesson objective rather than being distracted by the content (The IRIS Center, n.d.b). Task scaffolding involves gradually increasing student responsibility within a new skill whereas material scaffolding many include providing written prompts or guided examples to help students perform a task (The IRIS Center, n.d.b). Remaining true to Vygotskian theory, is that scaffolding occurs within a social context, with these social interactions being among peers and between students and educators, with all of these layers of interaction being essential to co-constructing knowledge.
In addition to scaffolding, reciprocal teaching, peer collaboration, and apprenticeships are consistent with Vygotsky’s sociocultural theory (Schunk, 2012). *Reciprocal teaching* involves an interactive dialogue between a teacher and a small group of students with the teacher initially modeling the activities with the students then assuming that role (Schunk, 2012). *Peer collaboration* reflects the notion of collective activity during which peer cooperation and social interactions serve instructional function (Schunk, 2012). *Apprenticeships* are defined as novices working closely with experts in joint work-related activities (Schunk, 2012). Apprenticeships align with Vygotskian theory and the zone of proximal development as they occur in cultural institutions and can help transform the learner’s development (Schunk, 2012). One of the most significant implications of Vygotsky’s theory is represented in these strategies that demonstrate that cultural-historical context is relevant to all types of learning because learning does not occur in isolation (Schunk, 2012).

Vygotskian theory implies that there is potential in a variety of educational environments to facilitate social, cognitive, and emotional development through learning (Vadeboncoeur & Collie, 2013). One SEL curriculum in particular, Tools of the Mind, includes comprehensive training for teachers on Vygotskian theory (Jones et al., 2021). This curriculum divides the day into structured, center-based, and peer-to-peer learning blocks during which activities are integrated into academic and play-based learning opportunities (Jones et al., 2021). Furthermore, Tools of the Mind emphasizes positive peer interactions and peer scaffolding (Jones et al., 2021). Additionally, The PAX Good Behavior Game, which is a strategy rather than a curriculum, can be used during most regular classroom activities and academic subjects and includes a list of meaningful classroom job roles that teachers can assign to students to improve overall behaviors, give students a greater sense of responsibility, and provide scaffolding opportunities for children.
who might need extra coaching (Jones et al., 2021). Importantly, as adults continue to teach and scaffold SEL skills as children learn and encounter increasingly complex social interactions, it will be increasingly important to include meaningful opportunities to engage and practice with peers (Jones et al., 2021).

**Bruner’s Developmental Theory of Cognitive Growth**

Developmental psychologist and prominent education figure, Jerome Bruner, is largely responsible for how we conceptualize education and learning today (Gibbs, 2014). In 1959, Bruner convened a group of content experts – and no professional educators - to redesign the curriculum of American schools, and thus redesigned American schools themselves by utilizing a discipline-based approach (Gibbs, 2014). Shortly after this conference, Bruner introduced one of his most famous lines in the pioneering book, *The Process of Education* (1960), which has been reprinted upwards of twenty-five times. Bruner (1960) stated, “we begin with the hypothesis that any subject can be taught in some intellectually honest form to any child at any stage of development” (p. 33). Bruner then detailed his concept of the “spiral curriculum” (Gibbs, 2014), also sometimes referred to as the “spiral of learning” (Masters & Gibbs, 2007) or the “Brunerian spiral” (Gibbs, 2014). The spiral curriculum is often commonly understood as the repetition of a topic that was previously taught; however, the intent of the spiral curriculum is to revisit a theme or topic but to build upon this previous learning while increasing the level of difficulty (Harden & Stamper, 1999). Importantly, new learning is related to previous learning and with each revisit, the competence of students will increase (Harden & Stamper, 1999). The value of the spiral lies in the reinforcement of the topics, as the subject is re-examined students continue to receive exposure to it, as well as the integration of the curriculum since there is continuity from one stage of the curriculum to the next with vertical integration between the
different stages (Harden & Stamper, 1999). There is also value in moving from simple to complex tasks in a logical sequence (Harden & Stamper, 1999).

The spiral curriculum is typically viewed from a systematic lens, such as K-12 education (Gibbs, 2014) or courses in an undergraduate medical degree that are components of a larger scope and sequence (Masters & Gibbs, 2007), although others have advocated for the implementation of the spiral curriculum to be more compressed with greater speed and intention (Gibbs, 2014). With others acknowledging that although the theoretical foundations of the spiral curriculum are sound and sensible, there is relatively little empirical evidence of its effectiveness (Johnston, 2012). There are, however, specific studies that suggest positive outcomes for use of the spiral curriculum but since spiral curriculums are often combined with inquiry-based and constructivist learning approaches, it can be difficult to ascertain the effects of the curriculum, rather than the delivery of the curriculum (Johnston, 2012).

Additionally, Bruner (1964) posited that knowledge can be represented in different ways, including enactive (i.e., motor responses), iconic (i.e., mental images, visual properties), and symbolic representation (i.e., symbol systems such as language and mathematical notation). Simple examples of this in academic learning involve mathematics, before students can understand abstract mathematical notation they must be taught and understand the concepts enactively (possibly using manipulatives) and iconically (visual representations; Schunk, 2012). Another example is a high school social studies teacher understanding what has been taught on a particular unit and determining what information students have mastered before building on the new material (Schunk, 2012). Additionally, Bruner’s theory emphasized concepts can be represented in different modes, including that an individual can throw a basketball, visualize its appearance, and calculate its circumference (Schunk, 2012).
Applications of Bruner’s Theory on Instruction and Social-Emotional Learning. The concept of the spiral curriculum permeates academic and social-emotional curriculums alike. Pointedly, “the spiral curriculum is a profound and powerful idea that has been so embedded in how we think about curriculum and pedagogy that it’s largely second nature” (Gibbs, 2014, p. 42). Many social-emotional learning programs utilize the spiral curriculum approach and deliver the same or similar content in consecutive school years. The spiral curriculum approach has been criticized for promoting “more of the same” yet to truly utilize this approach curricula should build upon previous learning while increasing the level of complexity. This approach to SEL instruction is practical as key concepts and skills can be re-introduced and built upon based upon the developmental age (Hunter et al., 2020). Few studies have examined the effects of sustained exposure to the same SEL program across multiple grade levels (Hunter et al., 2020). Research in this area is particularly important as research has emphasized the importance of dosage in SEL interventions, showing that in general more intervention exposure tends to improve student outcomes (January et al., 2011). One study by Hunter and colleagues (2020) examined the effects of sustained exposure of the Social Skills Improvement System: Classwide Intervention Program (SSIS-CIP) on elementary students’ social, behavioral, and academic outcomes. Results indicated that compared to students who experienced the SSIS-CIP in second grade only (N=218), students exposed to the SSIS-CIP in first and second grades (N=181) showed further gains in several social skill domain areas as well as academic engagement at the end of second grade; however, interactions indicated that some effects were potentially moderated by student or class-level skills at the beginning of second grade (Hunter et al., 2020). Continued research in this area with a range of SEL programs may reveal important practical considerations.

Bronfenbrenner’s Ecological Systems Theory
Social-emotional learning is informed by systems theories, specifically Bronfenbrenner’s ecology of human development, later referred to as ecological systems theory. Bronfenbrenner’s theory highlights the importance of the interactions between the changing environments in which individuals learn and grow (Bronfenbrenner, 1977). The ecology of human development was initially defined as “the scientific study of the progressive, mutual accommodation, throughout the life span, between a growing human organism and the changing immediate environments in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded” (Bronfenbrenner, 1977, p. 514). This evolving scientific perspective of the ecological environment is represented by a nested arrangement of structures, each contained within the next (Bronfenbrenner, 1977). In other words, Bronfenbrenner’s ecological systems theory views child development as an interrelated and interdependent complex system of relationships that are affected by multiple layers of the environment, ranging from individuals themselves, through the most influential immediate setting of the family, toward more distal cultural values of the community.

Ecological systems theory is comprised of multiple layers of the environment, including the microsystem, mesosystem, exosystem, and macrosystem (Bronfenbrenner, 1977). The microsystem has the most direct influence on development and includes the immediate environment in which the individual participates in and engages in (Bronfenbrenner, 1977). Examples of the microsystem include the family, school, peers and religious activities. The mesosystem is comprised of the interrelations among major settings that the individual engages in, more specifically, “a mesosystem is a system of Microsystems” (Bronfenbrenner, 1977, p. 515). The exosystem is that which influences the immediate settings that the individual engages
in, including the neighborhood, the media, agencies of government, and informal social networks (Bronfenbrenner, 1977). Finally, the macrosystem, which is fundamentally different than the other layers, as it refers not to specific contexts but to the society’s formal and informal culture and ideologies, includes the economic, social, educational, legal, and political systems (Bronfenbrenner, 1977). Importantly the concrete manifestations of the macrosystem are the micro-, meso-, and exo-systems (Bronfenbrenner, 1977).

**Applications of Ecological Systems Theory on Instruction and Social-Emotional Learning.** School systems undoubtedly influence the social-emotional development of students, including the relationships with peers and educators to the ideologies underlying the educational system in the United States and internationally. Schools are complex systems within of themselves with teachers, paraprofessionals and administrators serving in different roles with different norms of expected behaviors as well as power differentials (Brackett et al., 2015). Understanding these dynamics within the school setting is essential for designing and implementing social-emotional learning programming that supports the development of students. It has been argued that SEL programming produces positive student outcomes due to systematic structural changes to the educational environment (Denham & Brown, 2010; Trach et al., 2018). These structural changes include improving individual students’ knowledge and skills, relationships between close friends and peers, student and teacher relationships, and creating more inclusive learning environments and school culture (Trach et al., 2018).

High-quality social-emotional learning is about more than just targeting and teaching skills (Jones et al., 2021). Pointedly, “the ways in which children learn and grow are heavily influenced by the relationships, environments, societal systems and structures, and socio-cultural milieu around them” (Jones et al., 2021, p. 21), which is consistent with ecological systems
theory (Bronfenbrenner & Morris, 1998). In other words, the links between social-emotional learning skills and student outcomes do not occur in a vacuum (Jones et al., 2021). An individual’s immediate contexts such as their home, schools, and neighborhoods and communities as well as more distant features such as cultural and political environments and government policies interact within one another and present their own unique set of benefits and risks to healthy development (Jones et al., 2021). Moreover, an ecological approach is essential for equitable SEL, which moves beyond ideas of SEL as intra-psychological processes and focuses instead on the ecological environment in which learning occurs (White et al., 2022).

**Information Processing Theory**

The major tenants of information processing theory include the concepts that humans are processors of information, the mind is an information-processing system, cognition is a series of mental processes, and learning is the acquisition of mental representations (Mayer, 1996). In other words, this theory posits that humans are processors of information, and the mind is an information-processing system (Schunk, 2012). Furthermore, theories of information processing focus on how people attend to environmental events, encode information to be learned and relate it to knowledge in memory, store new knowledge in memory, and retrieve it as needed (Shuell, 1986a). Importantly, information processing is not the name of a single theory but is a generic term that is applied to theoretical perspectives that address the sequence and execution of cognitive events (Schunk, 2012). A commonly used metaphor in information-processing theories, is that information processing is analogous to computer processing (Schunk, 2012). The human system functions similarly to a computer by receiving information, storing it in memory, and retrieving it when necessary although researchers differ in the extent they extend this analogy (Schunk, 2012). There are multiple models of information processing, including the dual
memory model proposed by Atkinson and Shiffrin (1968, 1971), the levels of depth theory (Craik & Lockhart, 1972), and social information-processing theory (Crick & Dodge, 1994; Dodge, 1986).

Models of social information processing (SIP) are particularly relevant to social-emotional learning, as these theories provide significant advances in the understanding of children’s social adjustment (Crick & Dodge, 1994). One model (Dodge, 1986) proposed that when faced with a social situation, children engage in four mental steps before enacting social competent social behaviors: 1) encoding of situation cues, 2) representation and interpretation of those cues, 3) mental search for possible responses to the situation, and 4) selection of a response. A later expansion of this model (Crick & Dodge, 1994) included 1) encoding social cues (i.e., attending to appropriate cues, chunking and storing information), 2) mentally representing and interpreting the cues (i.e., integrating the cues with past experience and arriving at a meaningful understanding of them), 3) clarifying goals, 4) searching for possible social responses, 5) making a response decision after evaluating the consequences of the various responses and estimating the probability of favorable outcomes, and 6) acting out the selected response while monitoring its effects on the environment and regulating behavior accordingly. This reformulation is aligned with a vast majority of all previous studies and is a useful heuristic device for organizing the field (Crick & Dodge, 1994).

**Applications of Information Processing Theory on Instruction and Social-Emotional Learning.** The principles of information processing have been increasingly applied to learning in the school setting (Schunk, 2012). Information processing theories emphasize the flow and transformation through the cognitive system (Schunk, 2012). It is important that information is presented in such a way that it is meaningful, and students can relate the new information to
known information and understand the relevance of the information presented (Schunk, 2012). Thus, learning should be structured so that it is easily understood and can build on existing knowledge with advance organizers and teacher cues can be utilized to minimize the cognitive load (Schunk, 2012). Advance organizers are broad statements presented at the beginning of lessons that help students connect new material with prior learning (Mayer, 1984). Organizers direct students’ attention to important concepts to be learned, highlight relationships among ideas, and link new material to what students know (Faw & Waller, 1976). Advance organizers can be especially helpful for students who require additional support with organization and focus. The Second Step Social-Emotional Learning curriculum provides a consistent lesson structure with a quick review from the previous lesson, an introduction, a story with discussion, an activity, and a wrap-up. This curriculum includes concrete lesson concepts with clear lesson objectives, which can be utilized as a component of an advanced organizer. Furthermore, since the Second Step curriculum requires the use of short follow-through activities that are delivered during the week, these extension activities could be adapted to target the needs of a select group of students. For example, the last extension activity of the week could be used as a review of that week (as scripted) but could also include a preview with an advanced organizer of the next lesson. This adapted structure could allow for an important opportunity to link new material with what students know.

**Theories of Emotion & Emotional Development**

Throughout schools and communities, there are concerns about the emotional development of children and adults. Cognitive theories emphasize the importance of an individual’s thoughts, beliefs, attitudes, and values and explain development in terms of interactions between personal, behavioral, and environmental factors (Schunk, 2012). Despite the
acknowledgement of the importance of emotions in cognitive theories, educational psychology has neglected theories of emotion (Eliot & Hirumi, 2019). Despite this there are an abundant number of theories of emotion which strive to address the nature of emotion and define the distinctions between emotion and other related phenomena (e.g., motivation, mood, personality; Buss et al., 2019). Importantly, there is no single emotional development theory that guides contemporary research (Buss et al., 2019). There are three basic categories of emotional theories: physiological, neurological, and cognitive. In essence, physiological theories suggest that responses within the body are responsible for emotion, neurological theories argue that activity in the brain leads to emotional responses, and cognitive theories propose that thoughts and other mental activity play an essential role in forming emotions. There are also a multitude of concepts that draw from multiple theories, including differential emotion theory (Izard, 1971), emotion differentiation theory (Bridges, 1932; Sroufe, 1996), functionalist theory (Barrett & Campos, 1987; Campos & Barrett, 1984), and the dynamic differentiation model (Camras, 2011).

A majority of emotional development theories focus on adult functioning, and as such examine emotional phenomena from a fully developed form and lack discussion of the developmental etiology (Buss et al., 2019). Just as it is understood that children think differently than adults (Piaget, 1972/2008; Babakr et al., 2019), a downward extension of emotional theories is not an ideal explanation for emotional development across the lifespan (Buss et al., 2019). Many theories of emotional development focus on being aware of feelings and being able to reappraise them; however, it is not known how emotional awareness and appraisal processes develop (Buss et al., 2019). It is assumed that these skills are not possessed by infants and that they develop with age (Buss et al., 2019). The field of emotional development would benefit from one model that includes the lifespan and helps in the understanding the differences and
similarities between how infants, young children, and adults function emotionally (Buss et al., 2019). Without this understanding, most theories of emotional development are limited in their ability to address development in the conceptualizations of emotion (Buss et al., 2019). The dominant debate in the emotion literature includes the extent to which humans have a set of basic, discrete emotions that have evolved and been biologically prepared versus the interpretations of more general arousal and valence experience (Buss et al., 2019). As developmental science advances, it is expected that there will be an understanding of the distinction between emotion as a process and other psychological processes (Buss et al., 2019).

**Applications of Theories of Emotion for Instruction and Social-Emotional Learning**

Theories of emotional development inform the content of social-emotional learning programs and what students need to learn. *Discrete/differential emotion theory* includes both biological and social determinants of emotional development with the premise being that humans have the capacity for a basic set of universal emotions that evolved as humans adapted to their circumstances (Buss et al., 2019). These models assume that evolution has led to physiological patterns that are automatic and spontaneous yet can be managed based on how they are thought about, expressed, and acted upon (Buss et al., 2019). In other words, these theories propose that there is a set of universal discrete, basic emotions that are served by biological structures with the core set of emotions interacting with cognitive systems (Buss et al., 2019).

The *functionalist* view of emotions emphasizes why we have emotions, and not just what emotions are, which underscores the functionality for adapting to circumstance (e.g., Lazarus, 1991). This perspective grew out of research on infant development and diverged from previous theories and conceptualized emotions as a goal-oriented psychological process that serves adaption goals (Lazarus, 1991). As such, the functionalist view overlaps with the discrete
emotion theories in that different emotions serve specific goals but differs in that it
acknowledges environmental context (Buss et al., 2019). Buss and colleagues state, “we are
always “emotional” but only sometimes does the way we relate to the environment become
palpable to others or to ourselves” (Buss et al., 2019, p. 12).

Sroufe (1996) offered a theory of emotional development that focused not only on when
emotions appear in childhood but also how they develop. He contended that emotional
development is an orderly process and that the developmental order should be parallel for the
three major affect systems of fear, joy, and anger (Sroufe, 1996). It was asserted that emotional
development is intricately linked to social and cognitive process and the basic emotion systems
of fear, joy, and anger for the foundation of more complex emotions, which develop over time
(Buss et al., 2019). Importantly, these changes in emotional development are directly related to
other developmental changes (Buss et al., 2019).

Simply put, Buss and colleagues (2019) stated, “the world is a challenging place, and all
individuals, regardless of location, strive to get their needs met (a basic adaptive role of
emotion), to establish and maintain good relationships (a basic adaptive role of emotion) and to
coordinate getting individual needs met with living in close relationships and social networks.”
(p. 21). Furthermore, theories of emotional development are essential in understanding the level
of emotional and social skills that students have as well as the information and experiences that
students require to develop the skills of identifying, understanding, and managing their emotions
(Brackett et al., 2015).

Summary

This chapter has detailed the theories of behavior, cognition, development, information
processing, and emotion and provided examples of how these theories can be applied to the
content of social-emotional learning curriculums, how curriculums are presented, and how the content is implemented and sustained over time. The field of social emotional learning have been defined and conceptualized from varying perspectives, which has allowed for a cohesive approach to social-emotional learning programming (Brackett et al., 2015), although a more explicit focus on theory may strengthen social-emotional learning programs and isolate the most effective components. The remainder of this chapter will detail important context-specific considerations for nontraditional school settings as well as for students with emotional behavioral disorders.

**Nontraditional School Settings & Serving Students with Disabilities**

Understanding the context in which social-emotional learning programs are designed and implemented is essential to maximizing student outcomes. The setting of this study was one organization’s clinical day treatment centers, with many of the enrolled students meeting criteria for the special education exceptionality of emotional disturbance. Designing and implementing social-emotional learning programming in this non-traditional setting with this population requires an understanding of the historical foundations of alternative settings as well as underlying problems and challenges of building the social-emotional competence of students with emotional disturbance. These challenges include longstanding concerns with the name, definition, and identifying criteria for the federally recognized components of emotional disturbance (ED), as well as with the misconceptions and outdated views of some educators regarding students who have been identified with emotional disturbance. Another concern is that this population of students experiences less school success, including a low graduation rate and high dropout rate, than any other subgroup of students, with or without disability (Beaudoin et al., 2008; Wagner et al., 2005).

**Nontraditional School Settings**
Each context in which social-emotional learning programming is implemented has unique advantages and limitations that must be considered, which may be especially true for nontraditional settings. There are numerous types of nontraditional school settings with some focusing on vocational skills or specific subjects (e.g., math, science, the arts) and others concentrating on at-risk youth or students who are demonstrating problem behaviors while in school. Charter schools are also often considered an alternative form of education considering that their purpose to often to fulfill an alternative vision of schooling (Reimer & Cash, 2003). Commonly these types of schools are referred to as alternative education settings; however, there is little consistency within the field in defining what alternative schools are and who they best serve. Indeed, Kellmayer (1995) reported that “within the past 20 years, the term alternative education has been applied indiscriminately to such a wide variety of programs that its meaning has been clouded in confusion among educators, students, and the general public” (p. 2). Additionally of note is that substantially separate special education schools are often referred to as alternative schools in the field and within the literature base. Further complicating these definitions is the existence of behavior-focused alternative schools that often have a high percentage of students meeting criteria for an educational disability, especially emotional behavioral disorders (EBDs; Gorney & Ysseldyke, 1993; Lehr et al., 2009; Wilkerson et al., 2016).

Researchers have identified a variety of models that encompass the types of alternative schools. Hefner-Packer (1991) identified five models of alternative schools that have been developed in order to serve local needs: 1) alternative classrooms that are self-contained within a traditional school and offer varied programs in a different environment, 2) a school-within-a-school model that is also housed within a traditional school but has semiautonomous specialized
education programs, 3) separate alternative schools that are separated from the regular schools and have different academic and social behavior programs, 4) continuation schools for job-related training or parenting centers, and 5) Magnet schools that are self-contained programs that focus on intensified curriculum in one or more subject areas such as science or the arts (Reimer & Cash, 2003. Another model by Schargel and Smink (2001) added additional types of alternative schools, including 1) college-based alternative schools that utilize college facilities but are intended for students needing high school credits, 2) summer schools that are either intended for students to obtain remedial academic credits or to enhance a student’s special interests, 3) charter schools that are autonomous educational entities that operate under a contract negotiated between the state and local schools sponsors, as well as 4) residential schools that are typically offer special counseling or educational programs (Reimer & Cash, 2003).

Despite the lack of one operationalized definition of alternative schools, the U.S. Department of Education (2002) outlines that an alternative education school is “a public elementary/secondary school that addresses the needs of students which typically cannot be met in a regular school and provides nontraditional education which is not categorized solely as regular education, special education, vocational education, gifted and talented or magnet school programs” (p. 55). The most current definition from the Massachusetts Department of Elementary and Secondary Education (2018) defines alternative education as an “instructional approach under the control of a school committee that is offered to “at-risk” students in a nontraditional setting.” Students who are “at-risk” may include those who are pregnant/parenting teens, returned dropouts, delinquent youth, or those who are suspended or expelled students (Massachusetts Department of Elementary and Secondary Education, 2018). Alternative education programs may serve some students with disabilities but are not designed exclusively
for students with disabilities (Massachusetts Department of Elementary and Secondary Education, 2018). These definitions highlight an important distinction that substantially separate schools that serve only special education students do not meet the definition of alternative schools, according to the U.S. Department of Education (2002) and the Massachusetts Department of Elementary and Secondary Education (2018). Despite this, substantially separate special education schools that only serve students with disabilities are commonly and practically referred to as alternative school settings. This poses several problems, most notably with the consistency of reporting and data collection on outcomes of these student populations as well as the consistency of definitions by reported by researchers. Furthermore, considering the wide array of alternative and nontraditional school settings, there has continued to be a long-held debate regarding where students with disabilities should receive special education services with research on this question being scarce, methodologically flawed, and inconclusive (Zigmond, 2003).

Despite the lack of consistency in defining alternative schools, it is reported that the number of students enrolled in alternative settings has continued to increase (Lehr et al., 2009) and research shows that there are approximately 11,000 public alternative education programs in the nation (Atkins & Bartuska, 2010). One of the multiple factors that has contributed to this increase is that many school districts are now offering alternative placements that focus on addressing behavior problems that may have contributed to students’ lack of success in traditional public schools, rather than expelling students (Lehr et al., 2003; Wilkerson et al., 2016). Behavior-focused alternative schools typically serve students who have been unsuccessful in other school settings due to significant behavioral challenges combined with a lack of educational progress with skills such as academic achievement and social skills (Wilkerson et al.,
Research literature has indicated that youth with disabilities consist of approximately one third of these school populations” (Atkins & Bartuska, 2010). These alternative placements often provide services – such as specialized curriculum – intended to meet students’ social, emotional, or mental health and students often have greater access to counselors, psychologists, or other related service providers (Wilkerson et al., 2016). Additionally, the student-to-teacher ratio is significantly lower in these alternative schools, as compared to traditional schools (Wilkerson et al., 2016).

Behavioral-focused alternative schools have a disproportionate number of students who are identified as having an emotional behavioral disorder (EBD; Gorney & Ysseldyke, 1993; Lehr et al., 2009; Wilkerson et al., 2016). One study of Minnesota alternative programs found that 19% of enrolled students were identified as having a disability and over 50% of those students were identified as having an emotional behavioral disorder (Gorney & Ysseldyke, 1993). To put this into context, research indicates that the identification rate for emotional behavioral disorders has been regularly reported as between 1-5% with the most recent estimates at 5% (Mitchell et al., 2019). Notably, the problematic determination of emotional-behavioral disorders is highly reliant on the judgement of evaluators and the social context in which students attend, which can be highly concerning since the students provided with this designation are often placed into more restrictive settings with a disproportionate designation across racial/ethnic groups and gender (Hoge & Rubinstein-Avila, 2014; Skiba et al., 2008). Students who are African American, male, economically disadvantaged, and from single-parent homes, foster care or alternative home environments tend to be overrepresented in the category (Wagner et al., 2005). Students with EBDs are also more likely to be placed in alternative or non-
traditional educational settings, as compared to all students in special education (Becker et al., 2011; Landrum et al., 2004).

Notably, when researching alternative schools, the most commonly used methods are surveys, assessment scales, interviews, tests, quasi experiments, and researcher observations (Dubovicki & Topolovcan, 2020). Quantitative methods can be a challenge to researchers because they can sometimes provide superficial insight into the “real life” that takes place inside and outside of the classroom (Dubovicki & Topolovcan, 2020). Dubovicki and Topolovcan (2020) stated that to examine “alternative schools using only quantitative indicators is the same as just superficially observing an iceberg” (p. 62). Some researchers have recommended that when conducting research in alternative schools it is important to use extensive narrative gathering methods, including interviews (semi-structured or freelance), case studies, systematic observations, action research, ethnographic and historical research, and some futurological research methods, in order to gain as much insight as possible (Dubovicki, 2019). Dubovicki (2019) noted the special role of the researcher in constructing interview protocols that should be guided to an extent for the interviewees (research participants) rather than only having rigorously structured questions that rigidly adhere to a given topic. This semi-structured interview technique can allow for greater insights (Dubovicki, 2019).

Notably, substantially separate special education day schools and alternative schools are two of the most restrictive options for potential placement and careful consideration must be ensured before utilizing these settings. For students with disabilities there is a continuum of special education placement options that are driven by the principle of the least restrictive environment (LRE). According to federal special education law, the principle of LRE indicates that a child with a disability should be educated with her or his peers “to the maximum extent
that is appropriate.” Importantly, LRE does not only refer to placement but all components of a student’s individualized education program (IEP). Furthermore, students with disabilities should only be removed from the general education setting when his or her disability is severe enough that “supplemental services” cannot be included in the general education setting. Considering that students’ disabilities and individualized needs vary, students may require special education and related services to be provided outside of the general education setting. Moreover, since the research literature is unclear in regard to recommending placement options for students with disabilities, especially those with emotional behavioral disorders, it is even more essential to evaluate the outcomes associated with social-emotional learning programing that can prevent and address challenging behaviors in the school setting. This is especially important considering that effective teaching strategies and an individualized approach are truly what make special education services effective and simply not a one-size-fits-all approach to placement (Zigmond, 2003).

**Emotional Disturbance: Definition, Prevalence & Misconceptions**

The Individuals with Disabilities Education Act (IDEA, 2004, Sec. 300.8) defines emotional disturbance (ED) as a “condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance.” These characteristics are 1) an inability to learn that cannot be explained by intellectual, sensory, or health factors, 2) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers, 3) inappropriate types of behavior or feelings under normal circumstances, 4) a general pervasive mood of unhappiness or depression, and 5) a tendency to develop physical symptoms or fears associated with personal or school problems. As such, students with emotional disturbance (ED) or social and/or emotional
behavior disorders (EBD) can be characterized as having severe deficits in social competence (Cook et al., 2018).

The prevalence of students identified with ED has been regularly reported as between 1-5%, with some estimates as high as 12% (Ringeisen et al., 2017) and many recent estimates at 5% (Mitchell et al., 2019). In 2020-2021, “the number of students ages 3-21 who received special education services under the Individuals with Disabilities Education Act (IDEA) was 7.2 million, or 15% of all public-school students” (National Center for Education Statistics [NCES], 2022, p. 1). More specifically, approximately 360,000 students or 5% of students with disabilities (approximately 360,000 students) have met criteria for emotional disturbance (ED), or an emotional disability (NCES, 2022), with prevalence directly relating to the federal definition of emotional disturbance and eligibility criteria.

Regarding IDEA’s definition of emotional disturbance, there are longstanding and numerous concerns, which are detailed in a seminal paper that was published by the Peacock Hill Working Group in 1991. This paper described the growing criticisms of special education and concerns regarding the poor outcomes for students with ED, including those students at risk but not identified as eligible for services (Mitchell et al., 2019; Peacock Hill Working Group, 1991). The definitions and eligibility criteria are notably important as special-education identification and service delivery are inextricably linked with definitions and eligibility criteria (Mitchell et al., 2019), and professionals in the field have long-argued that the federal definition of emotional disturbance is not aligned with the educational focus of IDEA (Forness & Knitzer, 1992). Pointedly, the terminology and definitions of ED do not adequately facilitate access to all those in need, including with adequately differentiating between those who should and should not be eligible (Forness & Knitzer, 1992). Another key missing component of the definition is that there
is not guidance on how all of the inclusion criteria should be met (i.e., long period of time, marked degree, and adverse impact on educational performance; Mitchell et al., 2019).

A new proposed definition that would expand the parameters of the federal definition of emotional disturbance was crafted more than 25 years ago by a multidisciplinary group comprised of professional and advocacy groups (Forness & Knitzer, 1992). The Workgroup on Definition of the National Mental Health and Special Education Coalition developed this more precise and comprehensive definition of emotional disturbance that was adapted from the work of the Council of Children with Behavioral Disorders (Forness & Knitzer, 1992). The preferred replacement term and definition for emotional disturbance that was proposed by the Workgroup is as follows: Emotional or behavioral disorders means (1) “a disability that is characterized by behavioral or emotional responses in school programs so different from appropriate age, cultural, or ethnic norms that the responses adversely affect educational performance, including academic, social, vocational or personal skills; more than a temporary, expected response to stressful events in the environment; consistently exhibited in two different settings, at least one of which is school-related; and unresponsive to direct intervention applied in general education, or the condition of a child is such that general education interventions would be insufficient and (2) the term includes such a disability that co-exists with other disabilities. The term includes a schizophrenic disorder, affective disorder, anxiety disorder, or other sustained disorder of conduct or adjustment, affecting a child if the disorder affects educational performance as described in paragraph 1” (Mitchell et al., 2019, p. 80). Although this updated definition is verbose, this added level of detail increased clarity about eligibility, including more explicitly stating that adverse effects on academic, social, vocational, and personal domains. Furthermore, there is a greater emphasis on a multi-step diagnostic progress while considering multiple data.
sources. Although the term emotional-behavioral disorder has not been federally recognized, this study will use this term interchangeably with emotional disturbance.

In addition to the challenges that are present with the definitions and criteria of emotional disturbance, there are also misconceptions and outdated views regarding students with emotional behavioral disabilities. Some educators, including teachers and support staff (e.g., paraprofessionals, bus drivers, lunch supervisors), believe that students with ED chose to behave badly and as such were (and are) treated with attempts to control, contain, or punish (Peacock Hill Working Group, 1991). When developing programming that specifically targets students with emotional-behavioral disabilities, it is important to provide training to address these concerns and begin to support educators in shifting their mindsets from “why are they bad?” to “what happened to them and how can we support them?” This outdated mindset is not only present in traditional public schools but in specialized settings as well.

**Outcomes for Students with EBDs**

Another notable concern to take into consideration is that students with emotional behavioral disorders (EBD) experience less school success than any other subgroup of students, with or without disability (Beaudoin et al., 2008; Wagner et al., 2005). There have been longstanding concerns about the quality of outcomes students with EBDs in academic and behavioral areas (Bradley et al., 2004; Wilkerson et al., 2016). Specifically, youth diagnosed with emotional-behavioral disorders earn lower grades and fail more courses than any other disability group served in special education environments (Sacks & Kern, 2008). For approximately 51% of these children and youth the educational experience ends in a decision to drop out of school (Wagner et al., 2005), although more recent estimates suggest that number has decreased to approximately 35% of students with EBDs dropping out of school (U.S.
Department of Education, Office of Special Education and Rehabilitative Services [OSERS], Office of Special Education Programs [OSEP], 2017), however these recent estimates do not reflect trends during and after the COVID pandemic. Despite the positive trends that were observed prior to the pandemic, the dropout rate for students with ED (35%) was substantially greater than the dropout rate for students with any disability (18%) and all students who drop out (6%; U.S. Department of Education, OSERS, OSEP, 2017). There was an increase in the graduation rate for students with ED from 43% in 2004-2005 to 58% in 2014-2015 (U.S. Department of Education, OSERS, OSEP, 2017). Despite this positive movement, the graduation rate for students with ED (58%) remains substantially less than the percentage of students with any disability (70%; U.S. Department of Education, OSERS, OSEP, 2017).

**General-Education-Classroom Experience**

Special education is a well-thought-out program of specially designed instruction and collaborative interventions developed by a multidisciplinary team to include educational goals that meet the student’s individual needs. In adherence with the principle of least restrictive environment (LRE), there is a continuum of ways in which students can receive their programming, including the general education setting, special education classes, special education schools, schooling at home, or hospital settings (Individuals with Disabilities Education Act, 2004, Section 300.115). Importantly, students with emotional behavioral disorders should never be outplaced to settings that are substantially separate from general public schools without careful consideration of how specially designed instruction and support can be provided within the general education settings.

A large-scale eight-year study examined what takes place during typical classroom instruction by examining over 7,000 observations in a range of geographical settings, student
populations, and grade levels (Scott et al., 2017). This study concluded that in many classrooms the key teaching practices occurred at very low rates with less-than-optimal teacher use of even the most basic effective instructional practices, such as attention signals, prior knowledge supports, previews, instructor modeling, student modeling, organizational prompts, specific praise, and ratio of positive to negative interactions (Scott et al., 2017), with previous studies making similar conclusions (Reinke et al., 2013; Stichter et al., 2009). For students who are at-risk for or who have been identified with emotional-behavioral disorders, this lack of universal support is especially alarming. In fact, Scott and colleagues (2017) reported that students with behavioral problems received fewer opportunities to respond and higher rates of negative feedback. Unfortunately, there is evidence to suggest that teachers rarely alter their management strategies for students or their instruction for students with ED in the general-education classroom (Scott et al., 2017).

**Summary**

Theory is the roadmap that should drive social-emotional learning programming. Despite the importance of theory (Lewin, 1945) and the acknowledgement of its importance regarding SEL programming (e.g., Zins et al., 2004), little research has examined how specific theories are represented in social-emotional learning programming. This is perhaps because the fundamental components of significant theories of learning have become so engrained in our thought processes and practice. As has been detailed previously, there is not one predominante theory that informs the field of social-emotional learning, as social-emotional learning has been defined and conceptualized from many different perspectives across a variety of specialties within psychology, special education, and applied behavior analysis (Gresham, 2018). The application of more than one theory allows for the development of a cohesive approach to social-emotional
learning programming that can lead to the desired outcomes (Brackett et al., 2015). This chapter has detailed the theories of behavior, cognition, development, information processing, and emotion and provided examples of how these theories can be applied to the content of social-emotional learning curriculums, how curriculums are presented, and how the content is implemented and sustained over time.

For students with emotional behavioral disorders, it is likely that a multitiered system of social-emotional learning services that utilize theories of behavior, cognition, development, information processing, and emotion will be the most effective approach that creates the conditions for all students to learn, practice, and improve social-emotional learning competencies. Each theory has its own merits that enhance the social-emotional learning of students, including for those with social deficits, as well as shortcomings that may be addressed by other theories. Pointedly, behavioral theories provide guidance on behavior change, including how the environment is arranged, presented, and reinforced while also providing multiple opportunities for student practice. Behavioral theories may be particularly helpful with changing negative behavior patterns and social interactions of students with emotional behavioral challenges. However, behavioral theories and practices may require a high level of consistency that may not be practical to attain, even in the structured setting of a clinical day treatment program, considering that learning occurs in a social environment. As such, it is highly important to acknowledge the role of an individual’s thoughts, beliefs, attitudes, and values, as cognitive theories posit, and to understand that learning occurs in a social atmosphere with individuals acquiring knowledge, rules, skills, strategies, beliefs, and attitudes form others, as is hypothesized in social learning theory. Additionally, the development of students’ social, emotional, and behavioral skills occurs within an interrelated and interdependent complex
system of relationships that are affected by multiple layers of the environment, ranging from individuals themselves and peer relationships, through the immediate setting of the family, toward more distal cultural values of the community. As some literature has begun to analyze the content and instructional practices from leading SEL programs (e.g., Jones et al., 2021; Lawson et al., 2019; Wigelsworth et al., 2022), this will be essential in determining what in particular makes social-emotional learning curriculums effective (Wigelsworth et al., 2022) and may aid in understanding how each theoretical orientation can maximize student outcomes and address critical concerns regarding educational equity and social-emotional learning programming.
CHAPTER 3  

METHODOLOGY  

Study Context and Background  

The present study was conducted in a clinical day treatment (CDT) program in New England that provides outplacement services for students in kindergarten through twelfth grades who require a highly structured, supportive, and therapeutic environment to achieve academic and behavioral success. This CDT program emphasizes the importance of students developing the needed skills in order to return to a less restrictive environment or local public school whenever feasible. All students who attend have been identified as requiring special education services, having met qualifications for a variety of educational disabilities, including emotional disturbance, other health impairment: attention-deficit disorder/attention-deficit-hyperactivity disorder, autism spectrum disorder, and multiple disabilities.

One of the foundational components of this CDT is the school-wide behavioral system that includes a multi-tiered system of proactive and responsive supports. Universal proactive supports include regularly scheduled movement activities, behavior-specific praise and tokens, a break system, and brief, positive constructive feedback using a daily behavior data sheet. All students are provided school-wide expectations and opportunities to rehearse these skills as well as a three-to-one student-to-staff ratio, home-school collaboration, access to clinicians, and small group counseling. In addition to these proactive strategies, CDT has a universal responsive protocol for responding to the problem behavior of students that includes the use of specific de-escalation strategies, Time-Asides (TAs), and Time-Outs (TOs). For students who require additional support, tier 1 differentiation strategies may be utilized as an enhancement, increased dosage, or slight modification of the tier 1 strategies that are already in place. These strategies
include increased visual supports, behavioral momentum, increased rehearsal of expectations, differentiated tokens, and increased schedule of check-ins. For students who are not responsive to universal supports nor tier 1 differentiation strategies, students will be considered for tier 2/3 supports. Tier 2 support involves selecting evidence-based interventions that are matched to the underlying function of a student’s behavior. If a student continues to not respond or requires more intensive strategies then individualized tier 3 supports may be utilized, including formal functional behavioral assessments (FBAs), written individualized behavior plans (BIPs), increased progress monitoring, and checks of fidelity of behavior plan implementation.

The purpose of this project was to conduct a retrospective case study to examine the feasibility of implementing a universal intervention (i.e., Second Step Social-Emotional Learning elementary curriculum) and assessment system (i.e., the Devereux Student Strengths Assessment) within a CDT program that supports students with special education needs. In this retrospective study the existing data were recorded for reasons other than research yet applied to answer important questions about feasibility of implementation (Hess, 2004). This chapter will first describe the setting and participants and then detail the study procedures, including those related to the first three phases of implementation: exploration and adaption, program installation, and initial implementation. Next the dependent measures and independent variables that are important to this study will be described. Finally, the methods and data analysis will be described.

Setting & Participants

The setting for this study is one organization’s clinical day treatment (CDT) program, which provides outplacement services for students in kindergarten-twelfth grades and has two different physical locations. The programming across both sites is identical with each location
striving to implement all programming consistently and as designed. At the time of this study, there were 6 elementary, 3 middle-, and 9 high-school classrooms across both sites. These 18 classrooms include a maximum of 126 students, depending on enrollment, with each classroom being able to accommodate up to 7 students. Two elementary classrooms were selected as the initial classrooms for program implementation, with one classroom at each CDT site.

The typical classroom in the CDT program includes three staff members: a teacher, an instructor, and an instructional assistant (IA) as well as a shared in-school clinician and behavior coach. The teacher is responsible for planning, implementing, and monitoring core academic content (reading, writing, and math) as well as designing, modeling, and promoting classroom-level positive behavior supports. Instructors plan and implement subject area instruction (social studies and science), deliver classroom behavior supports, and prompt and reinforce social-emotional skill generalization. The IAs provide support in delivering individualized instruction and proactive and responsive supports. The role of the clinician entails collaboratively planning, implementing, and monitoring the core social-emotional instruction as well as modeling and prompting classroom teams in delivering proactive and responsive supports. Each clinician has 2-3 designated classrooms in which they provide leadership, clinical groups, and support for staff and students alike. Although clinicians have primary classroom assignments they frequently provide support throughout the building. Additionally, behavior coaches are shared throughout each site and model and prompt teams in delivering proactive and responsive supports.

**Study Participants**

The dataset used for this study was recorded as a component of developing and implementing social-emotional learning programming in this CDT program. Study participants included classroom staff, program leadership, and students in two selected classrooms. These
two classrooms had a total of 11 students in grades 3-6. Staffing in these two classrooms included 2 clinicians, 2 teachers, 2 instructors, and 4 instructional assistants. For the purpose of this study, these staffing participants will be referred to as *interventionists*. Since this program was designed and conducted collaboratively with the CDT leadership team, these team members are also study participants with a different perspective on the program and its implementation. For the purpose of this study, this team will be called the *SEL Leadership Team at CDT*. This team was comprised of the SEL program coordinator, SEL coaches, supervising psychologist/board certified behavior analyst, academic expert, program directors, special education director, and an external consultant. The SEL program coordinator led the collaborative effort to adopt a universal SEL curriculum and assessment system. Two educators served as the SEL Coaches who observed lessons, provided performance feedback and problem solving, and support with lesson planning. One SEL coach was a behavior specialist and the other the lead school clinician. One of these SEL coaches also served as the SEL program coordinator. The program coordinator, SEL coach, and supervising Psychologist/BCBA worked closely throughout program development. The external consultant provided expertise and valued feedback to this group. Information regarding study participants is summarized in Table 3.1, which is included at the end of the chapter.

**Positionality Statement**

The researcher of this study served as the SEL program coordinator/coach within her role as a behavior specialist in the clinical day treatment setting. The researcher acknowledges that her views, beliefs, and experiences influenced all facets of this study, including how this research was conducted, its outcomes, and results. Furthermore, the researcher’s perspective and decision making highly influenced both the quantitative and qualitative components of this study. The
researcher is a Caucasian, cisgendered female doctoral candidate in school psychology at a large research university in the northeastern United States. She started her career in education as a special education teacher, specializing in working with students with emotional-behavioral disabilities, and has been trained as a school psychologist and special education administrator. The researcher became involved in this work when the COVID-19 pandemic necessitated the prioritization of the social-emotional wellbeing of students, which aligned with her areas of expertise.

Within her dual role as SEL coordinator/coach and researcher, the evaluator was involved in all aspects of program design and service delivery, which allowed the research to be conducted and viewed from an insider perspective. Since the evaluator was fully integrated into the setting prior to this research she was able to utilize her insights into the culture of the setting, her relationships with participants, and her knowledge of the student population to aid in program decisions. As an insider she was also privy to important background information that aided in the understanding and interpretation of study data. This type of in-depth involvement and participation is often seen as an asset in qualitative research and within this study it was a strength that likely allowed for stronger outcomes and greater potential application of these findings.

**Procedures: Exploration & Adoption**

To provide further background context that is important to this study, this section describes the study procedures, beginning with the exploration and adoption stage. The exploration and adoption stages of implementation focuses on determining the potential match between an evidence-based practice and the needs of a program or community (Fixsen et al., 2005). To prepare for the implementation of a structured universal social-emotional learning
curriculum, CDT leadership engaged in a multi-part series of professional development that was led by the external consultant and the SEL program coordinator between March-June of 2020. Early professional development sessions focused on developing foundational knowledge of social-emotional learning and determining the short-term and long-term outcomes priorities of the CDT leadership team regarding implementing social-emotional learning practices or curriculum. The leadership team identified the following short-term outcomes as goals for their students, listed in order of importance: 1) improved self-management, 2) improved decision-making, 3) improved relationship skills, 4) reduced disruptive behavior, and 5) improved school climate. The long-term outcomes identified are 1) improved social relationships, 2) improved school attendance, 3) decreased teacher/staff burnout, 4) improved academic achievement, and 5) decreased high-risk behaviors. These priorities guided program decisions.

**Curriculum Selection**

Over the summer of 2020, the CDT leadership team engaged in a curriculum and assessment selection process during which stakeholders provided input and made programming decisions as a collaborative group. This process was guided by the SEL program coordinator who used the three curriculum selection recommendations from the Collaborative for Academic, Social, and Emotional Learning (CASEL), including 1) school and district teams should engage diverse stakeholders in the program selection process, 2) implement evidence-based SEL programs in the context of systemic district and school programming, and 3) consider local contextual factors to better understand resources and challenges. In addition to these overarching recommendations, CASEL has published multiple guides to effective social and emotional learning programs, including a preschool and elementary version and a middle school and high school edition (CASEL, 2013; CASEL, 2015). These guides identify and rate well-designed,
evidence-based SEL programs that have potential for systematic dissemination and provide practitioners information for selecting and implementing SEL programs within their schools.

For this curriculum selection process, the CDT leadership team utilized the CASEL guides (2013, 2015) to review all K-12 programs that included free-standing SEL lessons and to select an evidence-based program. The SEL program coordinator used the rating tables to identify program candidates with potential (i.e., those including free-standing lessons) and the team reviewed these program descriptions to narrow the search, gather additional information about the top program candidates, and consider the cultural sensitivity and linguistic responsiveness of the program. Furthermore, prior to beginning this curriculum review, the leadership team had ranked their curriculum selection priorities that took the CDT setting into consideration. The selected priorities included 1) documented effectiveness, 2) buy-in from staff, 3) easy to use and scripted program materials, 4) practical training requirements (initial and ongoing), and 5) cost (including that multiple grade levels would need to be purchased). The leadership team determined that an elementary curriculum would be implemented first, followed by middle-school and then-high school curriculums. After the leadership team narrowed the options to two considerations, the input from all CDT clinicians (N=8) was sought to make a final decision. The Second Step Social Emotional Learning curriculum was selected for use with elementary and middle schoolers.

**Intervention: Second Step Social-Emotional Learning Curriculum**

The Second Step Social-Emotional Learning curriculum is a universal, classroom-based program that was designed to increase the school success of students and decrease problem behaviors. The Second Step elementary curriculum consists of weekly lessons, daily practice skills, reinforcement activities, and family engagement opportunities. There are 22 lessons in the
elementary curriculum that are intended to be 35-40 minutes in length. Lessons are designed to be taught in sequential order beginning with a unit on empathy and skills for learning followed by units on emotion management and then problem solving. The Second Step scope and sequence for units 1 and 2 is included in Appendix H, as is the curriculum’s recommended teaching practices. Each lesson is scripted and includes an introduction (5-minutes), story and discussion (10-15 minutes), activity (10-15 minutes), and a wrap-up (5-minutes). Teachers are also provided with following-through activities, including daily practice activities and three recommended practices to use every day to support skill use: anticipate, reinforce, and reflect.

**Assessment Selection**

CASEL offers a SEL Assessment Guide, which is an interactive tool that can be used by practitioners to select and effectively use current available assessments of students’ SEL competencies. When reviewing this assessment guide, leadership members and an external consultant with expertise in this area deemed there were two assessment systems that were appropriate for consideration. Available leadership team members met with representatives of the corresponding SEL assessment systems and were provided overviews and literature. The Devereux Student Strengths Assessment (DESSA), a standardized, norm-referenced rating scale that measures social-emotional competencies in children and youth, was selected.

**Assessment: Devereux Student Strength Assessment System**

The Devereux Student Strengths Assessment (DESSA) is a *standardized, norm-referenced rating scale* that measures *social-emotional competencies* in children and youth in kindergarten through eighth grades (LeBuffé et al., 2014). Importantly, this is a strength-based assessment that measures positive behaviors rather than maladaptive ones, which is an approach recommended by the literature to promote positive development (Taylor et al., 2018). The
DESSA rating scale is organized into eight social-emotional competencies and an overall competency score, which is a combination of the eight competencies. These competencies are considered by DESSA as critically important and beneficial for all students (LeBuffe et al., 2014). The overall competency score and all eight competencies (i.e., self-awareness, social-awareness, self-management, goal-directed behavior, relationship skills, personal responsibility, decision making, optimistic thinking) were used in this study. The full rating scale is included in Appendix G. The DESSA can be completed by teachers, parents, and other practitioners. For this study DESSA data were rated by the classroom teachers and the classroom clinicians. The DESSA rating-scaled prompted raters to indicate on a five-point scale how often the student engaged in particular behaviors over the past four weeks. For example, selected questions include did the student carry herself/himself with confidence? Keep trying when unsuccessful? Cope well with insults and mean comments?

As reported in the manual, DESSA has been designed as a psychometrically sound, strength-based measure of social-emotional competence that can identify children at risk of developing social-emotional problems before those problems emerge (LeBuffe et al., 2014). The DESSA manual indicates that the DESSA rating scale is reliable for assessing the social-emotional competency of students and that the internal consistency meets industry standards (LeBuffe et al., 2014). The internal reliability for DESSA is very high with the Social-Emotional Composite (SEC) alpha coefficients of 0.98 for parent raters and 0.99 for teacher/staff raters (LeBuffe et al., 2014; LeBuffe et al., 2018). Across all of the eight DESSA scales, the alpha coefficients range from 0.82-0.89 for parent raters and 0.89-0.94 for teacher raters (LeBuffe et al., 2018). The manual indicates that the test-retest reliability is consistent across time and that parents and teachers can rank children’s scores similarly (LeBuffe et al., 2014). Additionally, the
actual mean scale scores at either different points in time or by different raters are also quite similar (LeBuffe et al., 2014). The test-reliability of the DESSA social emotional composite (SEC) is reported as 0.90 for parents and 0.94 for teachers, with a 4-to-8-day interval between ratings (LeBuffe et al., 2014). The inter-rater reliability of the SEC is reported as 0.78 for parent raters and 0.80 for teacher raters. Overall, these results indicate that the DESSA rating scale is reliable for assessing students’ social-emotional competence. Additionally, the criterion-related validity studies demonstrate that DESSA scores indicate very large differences (d=1.39) between those children with and without the special education designation of serious emotional disturbance (LeBuffe et al., 2014; LeBuffe et al., 2018).

**Procedures: Program Installation**

Once it has been decided that a program or practice will be implemented then *program installation* phase begins. Program installation involves planning and preparing resources that are needed to implement (Fixsen et al., 2005). For this study, there were 5 main areas of planning that needed to occur before implementation: approach to program design and implementation, general procedures, roles and responsibilities of interventionists, professional development, and assessment development.

**Approach to Program Design & Implementation**

When preparing to design and implement new programming in school settings it is essential to have an understanding of implementation science, including the stages of implementation and implementation strategies, in order to maximize outcomes for students, educators, and families. Success for social-emotional learning initiatives relies on implementation reaching high levels and not only selecting strong, evidence-based curriculum and assessment systems. Throughout this program installation phase there were multiple
implementation strategies that influenced the mindset of the SEL program coordinator. These strategies included those traditionally included within pre-service training programs, specifically performance-based feedback (Noell et al., 2014) and gathering data to monitor the fidelity of an intervention (Sanetti & Kratochwill, 2009). Additionally, the SEL program coordinator focused on implementation strategies related to developing buy-in with interventionists and allowing for practitioners to develop into SEL experts who could champion the intervention to others, as developing buy-in for an intervention is crucial (Cook et al., 2019; Jones et al., 2018).

**General Procedures**

Overall, it was determined that one Second Step lesson would be taught every week, beginning after the school-break in January 2021. The goal was for units 1 and 2 to be completely implemented before the end of the school year. Lessons were taught in two 30-minute sessions or one 60-minute session. Following-through activities were taught daily and embedded into the daily schedule, depending on the type of recommended activity. Clinicians and teachers were provided class coverage (i.e., an additional prep period) to co-plan lessons for the following week. The SEL coach, clinician, and teacher also met weekly for performance feedback and to debrief after each lesson.

**Roles & Responsibilities of Interventionists**

For this intervention, the roles and responsibilities of interventionists needed to be developed. Although adjustments would be made during the intervention period, roles and responsibilities were created before implementation for interventionists at both sites. Based on the individual needs and preferences of the two different classroom teams, the roles and responsibilities developed were different at each site. These procedures were developed with the understanding that changes may need to be made, but in conjunction with the SEL coach and/or
leadership team. At one site, it was determined that the clinician would facilitate the Second Step lessons with teacher support. The teacher would plan for and coordinate the following-through activities while the classroom instructor and/or instructional assistant would facilitate those activities. At the second site, the clinician and the teacher would co-facilitate the lessons and the teacher would plan and facilitate the following-through activities.

**Professional Development**

Considering the importance of coordinated training, coaching, and frequent performance assessment, a plan for continued professional development was needed. First, all interventionists were provided with time to complete the Second Step modules that were included with the curriculum. Interventionists were also provided with monthly professional development sessions with the SEL program coordinator. Additionally, clinicians and teachers met weekly with their designated SEL coach for performance feedback and opportunities for problem solving.

**Assessment Development**

Before implementation could occur, there were multiple assessment tools that needed to be adapted or created with the purpose of monitoring the fidelity of implementation as well as the process of implementing the intervention. An observation form, lesson planning template, and a weekly checklist were developed before implementation occurred.

**Procedures: Initial Implementation**

*Initial implementation* has been described as the “initial awkward stage” (Joyce & Showers, 2002) during which change in the overall practice environment is required (Kitson et al., 1998). During this time, practitioners are striving to develop familiarity and confidence with the implementation of the new intervention. Notably, practitioners build skills with the practice through accumulating experience and repetition (Fixsen et al., 2005). During the initial stage of
implementation, procedures were followed as designed in the program installation phase. Changes that were made to procedures during this phase will be discussed in the results section.

**Dependent Variables & Outcome Measures**

This study examined the feasibility of implementing the Second Step Social-Emotional Learning curriculum and Devereux Student Strength Assessment system within one organization’s clinical day treatment program. This section is organized by feasibility dimensions and describes the dependent variables and outcome measures that were used in this program evaluation. Table 3.2, which is included at the end of the chapter, summarizes the origins of each assessment.

**Social Validity**

Social validity is the perception of social significance, acceptability, and satisfaction with an intervention or program by obtaining feedback from those who receive and/or implement the intervention (Wolf, 1978). For this study, the social validity of educators was assessed via *formative and summative assessments* that were completed by interventionists. These assessments are included in Appendix A and B, respectively. The formative assessment was distributed part-way through implementation and the summative assessment was given at the endpoint of the initial intervention period. The formative assessment was developed by the researcher and includes questions that focus on determining the overall perspective and satisfaction of the interventionists on the process of implementation as well as the examination of the successes and challenges. The summative assessment was developed by the researcher and delves further into the interventionists’ perspectives on the helpfulness of the specific factors (e.g., trainings, coaching sessions, scheduled planning time) on the implementation process. Interventionists were asked to rank these factors from most essential to least helpful. Next the
interventionists were asked about self-efficacy. In developing this section of the tool, the researcher utilized the Teacher Efficacy Scale (Tschannen-Moran & Hoy, 2001). Additionally, the summative assessment asks about the perspectives of the interventionists regarding the SEL foundational practices at the clinical day treatment program. The researcher consulted the CASEL Tool for Staff, Family, and Community Partner Survey on SEL Implementation (2019). For example, the summative assessment asks interventionists to report the extent to which they provided feedback or input to the school’s SEL team, have the needed resources, as well as assessment practices. Importantly, these measures were utilized to monitor the implementation of the intervention and to make adjustments throughout the process.

A focus group was also conducted at the end of the intervention period to elicit feedback from the interventionists regarding the process of implementing this intervention. Considering the nature of focus groups, open ended questions were designed by the researcher. In development of this script, recommendations from Krueger (2002), Mmari (2006), and Rennekamp & Nall (2000) were utilized. This focus group was asked questions regarding how the interventionists perceived the acceptability of the Second Step intervention and the process of implementing it. The semi-structured focus group script is included in Appendix C.

Practicality

This dimension of the feasibility evaluation focused on identifying the practical challenges that were not identified prior initial implementation (Gadke et al., 2021). For this evaluation, practicality for the Second Step curriculum and the DESSA was examined through the use of formative and summative assessments, an end of year focus group, and a weekly self-reflection. See Appendix A, B, C, and D, respectively. The weekly self-reflection tool was developed by the researcher and was adapted from the Second Step Lesson Completion
Checklist (teacher and counselor versions) and the Second Step Lesson-Reinforcement Checklist. One of the goals of utilizing multiple forms of assessment data that focused on the process of implementation was to have interventionists identify practical challenges that occurred during implementation. Additionally, *meeting notes from leadership meetings and planning sessions, procedural documentation, training resources, and lesson plans* were examined to determine the practical challenges that were not identified prior to implementation.

**Adaptability**

Adaptability refers to whether an intervention can be modified to meet the needs of the implementation setting (Lyon et al., 2019). To monitor the adaptability of the Second Step Social-Emotional Learning curriculum, the clinician and teacher dyads were given a *weekly self-reflection* that included questions regarding adaptability (see Appendix D). The clinician-teacher dyad was asked to indicate the extent (i.e., never, occasionally, often, always) to which parts of the lesson were changed or left out. This included leaving out or skipping parts of the lesson, changing the lesson significantly from the way it was written, and adding new material to the lesson. The clinician-teacher dyad indicated the extent (i.e., never, occasionally, often, always) to which it was necessary to deviate from the daily practice activities. Questions of adaptability were also examined using thematic analysis (Braun & Clarke, 2006).

**Implementation**

Implementation assessment refers to the extent to which intervention procedures were followed as well as the exposure (i.e., amount, frequency, and length of intervention sessions), quality of delivery (i.e., skill, enthusiasm, understanding), and participant responsiveness (i.e., engagement, enjoyment, and attentiveness; Dusenbury et al., 2003; Sanetti et al., 2011). For this
study, implementation efforts were examined through the use of observation and self-report measures.

**Observation Tool**

The observation tool used for this study included components of the Second Step Lesson Observation Form and the Second Step Lesson Reflection Log and was adapted to align with the clinical day treatment setting and the CDT Classroom Drop-In Form. This tool utilized a 3-point rating system to score lesson implementation in the areas of preparation, lesson fidelity, student engagement strategies, teaching strategies, and management strategies. This tool can be used to monitor the exposure, quality of delivery, and participant responsiveness. The SEL coaches used this 3-point rating system during weekly observations and scored each objective as clearly evident, partially evident, or not evident. The SEL coaches also evaluated the praise to correction ratio during the lessons and completed a direct behavior rating (DBR) in the areas of active supervision, academic engagement, and disruptive behavior. The observation tool is included in Appendix E.

**Self-Report Measures**

Self-report measures are one method that can provide a wealth of knowledge about implementation issues related to feasibility (Ruiz-Primo, 2006). The clinician and teacher dyad completed a weekly self-reflection (see Appendix D) that included self-reported implementation for lessons and following-through activities. The clinician-teacher dyad was asked to report the approximate percentage (i.e., 25%, 50%, 75%, 100%) of the lesson selections (i.e., warm-up, story with discussion, activity, wrap-up) that were completed during each lesson. The dyad also indicated the approximate percentage (i.e., 25%, 50%, 75%, 100%) of the daily practice activities that were completed in the previous week. Teacher and clinician engagement was also
rated (i.e., never, occasionally, often, always) for each lesson. The end-of-year focus group (Appendix C) also included questions related to self-reported implementation.

**Effectiveness**

When determining if an intervention is feasible to implement, it is important to assess if an intervention shows promising evidence of effectiveness (Orsmond & Cohn, 2015). The interventionists’ perspectives on the effectiveness of the Second Step curriculum were discussed during the end-of-year focus group. Changes in students’ social emotional competencies were evaluated using the pre-test posttest differences from the DESSA that was described earlier in this chapter. Additionally, for this evaluation students’ *social-emotional knowledge* and *competence* was examined to determine if there was promising evidence of effectiveness using the Second Step Knowledge Test.

**Second Step Knowledge Test**

To assess students’ social-emotional knowledge, students completed a *summative knowledge test* that was included with the Second-Step Social-Emotional Learning curriculum. This assessment includes 12 questions that address the specific concepts taught in the curriculum and is included in Appendix F. Students were taught Units 1 and 2 and were administered the 8 questions from those units. The summative knowledge questions from Unit 3 were not administered. The question format for this assessment includes multiple choice and true/false questions. Sample questions include, “Do you experience strong emotions only in your brain?” and “you are playing a game at recess. You notice that someone on the other team is cheating. You are so angry! What can you do to calm down?” Notably, this knowledge test was designed as a summative assessment and not as a pre/post-test. No psychometric information is available for this measure.
Data Analysis Overview

The purpose of this dissertation was to examine the feasibility of implementing a universal intervention (i.e., Second Step Social-Emotional Learning elementary curriculum) and assessment system (i.e., the Devereux Student Strengths Assessment) within a clinical day treatment program that supports students with special education needs. A mixed-methods approach was used to examine the program impacts as mixed-methods research produces more evidence than either qualitative or quantitative approaches could by themselves, and the combination of strengths of one approach make up for the weaknesses of the other approach (Creswell & Plano Clark, 2011). Furthermore, utilizing a mixed-methods approach may be particularly pertinent in small settings where the number of students and classrooms is small and quantitative data is unlikely to capture a comprehensive understanding. Indeed, Dubovicki & Topolovcan (2020) posited that “to explore alternative schools using only quantitative indicators is the same as just superficially observing an iceberg” (p. 62).

An explanatory sequential mixed methods design was selected as the core methodology for this study. The typical explanatory sequential design is comprised of two phases with the first concentrating on the collection and analysis of quantitative data and the second focusing on the collection and analysis of qualitative data in order to explain the quantitative results (Creswell & Plano Clark, 2018). This qualitative phase is specifically “implemented for the purpose of explaining the initial results in more depth, and the name of the design – explanatory – reflects how the qualitative data help explain the quantitative results” (Creswell & Plano Clark, 2018, p. 77). Furthermore, considering that the primary purpose of the explanatory sequential design is to use qualitative information to explain quantitative results, this methodology may be especially relevant for use with feasibility studies due to the importance of examining the implementation
process and determining if an intervention can work and how it does work in a particular setting. Therefore, the explanatory sequential design can be used to examine the process of implementation using qualitative data, which can explain the quantitative outcomes of the study. Figure 3.1 shows a visual representation of the explanatory sequential design and is included at the end of the chapter.

Data Analysis Procedures

For this study, the traditional explanatory sequential design (Creswell & Plano Clark, 2018) was modified to allow for the simultaneous collection of quantitative and qualitative data. Although collected simultaneously, the qualitative questions were designed for the purpose of providing additional context and explanation for the quantitative results. Figure 3.2, which is included at the end of this chapter, shows a visual representation of the procedures used for this study. This procedure included four phases: 1) designing the quantitative strand, 2) designing the qualitative strand, 3) implementing the quantitative and qualitative strands, and 4) interpreting the connected results. The first phase involved determining the relevant quantitative questions and the second phase included the development of open-ended qualitative questions that would allow for greater insight. Both of these phases were previously described in the program installation procedures section. Stage three included the collection of data and was previously detailed in the initial implementation procedure section.

The fourth and final stage is the interpretation of data. Utilizing the data analysis procedure outlined by Creswell and Plano Clark (2018), the quantitative results were explored first by preparing the data (i.e., cleaning the data) and then an initial exploration. Descriptive statistics were then computed, represented graphically, and interpreted. In order to analyze the qualitative data, all data were transcribed, formatted to facilitate the analysis, and entered into
NVivo, a qualitative data analysis program (Creswell & Plano Clark, 2018). Before analyzing the qualitative data using thematic analysis, three questions were considered: 1) Will inductive or deductive thematic analysis be used? 2) Will themes be identified at the semantic or latent level?, and 3) Will essentialist/realist or constructionist thematic analysis be used? (Braun & Clarke, 2006). For this study, both the deductive or ‘top down’ approach and the inductive or ‘bottom up’ approaches were selected. These data were first analyzed by mapping the data onto the existing feasibility dimensions (i.e., social validity, practicality, adaptability, implementation, effectiveness), thus deductively analyzed. Once all the data were mapped onto each feasibility dimension then the data were analyzed inductively without trying to fit it into a pre-existing coding frame. Next, it was determined that the data would be analyzed on the latent or interpretative level, meaning that the development of the themes themselves involved interpretative work. Additionally, a constructionist approach to thematic analysis was selected to consider the structural conditions that enabled individual perspectives. The next step in the qualitative analysis procedure was to create initial memos that documented initial thoughts and ideas. Then each qualitative data source was coded, codes were formed into potential themes while using visual representations to aid in interpretation, codes were reviewed and a thematic map of the analysis was created, continued analysis was conducted to refine themes, and the final report was documented with compelling extract examples (Braun & Clarke, 2006). In order to validate the qualitative results, data from multiple sources and individuals were collected and synthesized, extended time was spent in the field, and a member checking process was conducted with two CDT leadership team members. Finally, the qualitative data were used to explain and provide further detail regarding the quantitative results (Braun & Clarke, 2006). These results will be detailed in the next chapter.
Tables

Table 3.1.  
*Study Participants*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students</strong></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Grade 3</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Grade 4</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>Grade 5</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Grade 6</td>
<td>2</td>
<td>18.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interventionists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinicians</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Teachers</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Instructors</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Instructional Assistants</td>
<td>4</td>
<td>40</td>
</tr>
<tr>
<td>SEL Leadership Team at CDT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEL Program Coordinator/SEL Coach</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>SEL Coach</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Supervising Psychologist/BCBA</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Academic Expert</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Program Director</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>Special Education Director</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>External Consultant</td>
<td>1</td>
<td>12.5</td>
</tr>
</tbody>
</table>
Table 3.2
Assessment Tools

<table>
<thead>
<tr>
<th>Assessment Tools</th>
<th>Appendix</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative Assessment</td>
<td>A</td>
<td>Developed by the researcher.</td>
</tr>
<tr>
<td>End-of-Year Focus Group</td>
<td>C</td>
<td>This semi-structured focus group script was developed by the researcher. Utilized recommendations from Krueger (2002), Mmari (2006), and Rennekamp &amp; Nall (2000).</td>
</tr>
<tr>
<td>Weekly Self-Reflection</td>
<td>D</td>
<td>Adapted by the researcher from the Second Step Lesson Completion Checklist (teacher version), Second Step Lesson Completion Checklist (counselor version), and the Second Step Lesson-Reinforcement Checklist.</td>
</tr>
<tr>
<td>Observation Form</td>
<td>E</td>
<td>Adapted by the researcher from the K-5 Second Step Lesson Observation Form, Second Step Lesson Reflection Log, and the CDT Classroom Drop-In Form.</td>
</tr>
<tr>
<td>Second Step Knowledge Assessment</td>
<td>F</td>
<td>Utilized as designed by Second Step.</td>
</tr>
<tr>
<td>Devereux Student Strength</td>
<td>G</td>
<td>Utilized as designed by DESSA.</td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figures

Figure 3.1
Explanatory Sequential Mixed Method Design (Creswell & Plano Clark, 2018)
Figure 3.2
Flowchart of the Procedure for Implementing a Modified Explanatory Sequential Mixed Method Design (Adapted from Creswell & Plano Clark, 2018)

Stage 1
Design Quantitative Strand
- Determine the quantitative approach
- State quantitative research questions

Stage 2
Design Qualitative Strand
- Determine the qualitative approach
- State qualitative research questions, expanding on the quantitative questions

Stage 3
Implement the Quantitative & Qualitative Strands
- Collect closed-ended data with instruments
- Collect open-ended data with instruments

Stage 4
Interpret the Connected Results
- Summarize and interpret the quantitative results
- Summarize and interpret the qualitative results
- Discuss to what extent and in what ways the qualitative results help to explain the quantitative results
CHAPTER 4

RESULTS

This study was a comprehensive evaluation of the dimensions of feasibility when implementing the Second Step Social-Emotional Learning curriculum and the Devereux Student Strengths Assessment within one clinical day treatment (CDT) program. More specifically, the following research questions were assessed: 1) Is it feasible to implement the Second Step Social-Emotional Learning curriculum in a clinical day treatment setting that serves students with special education needs?, and 2) Is it feasible to implement the Devereux Student Strengths Assessment system in a clinical day treatment setting that serves students with special education needs? Examining the implementation process for social-emotional learning programming is an underutilized yet essential component of determining if an intervention can work and how it does work in a particular setting. Furthermore, focusing on feasibility and the implementation process can inform decision making about scaling-up a program (Gadke et al., 2021) and maximizing outcomes.

Question 1: Second Step Social-Emotional Learning Curriculum

This question sought to determine if and to what extent it is feasible to implement the Second Step Social-Emotional Learning curriculum in one organization’s clinical day treatment program that serves students with special education needs. This question included 5 dimensions of feasibility, including social validity, practicality, adaptability, implementation, and effectiveness.

Social Validity

Quantitative and qualitative data were gathered to evaluate the interventionists’ perceptions of acceptability through rating scales (Gadke et al., 2021) and focus groups (Ayala &
Elder, 2011; Gadke et al., 2021). Interventionists were asked to rate their perceptions of the implementation process of the Second Step curriculum on a 10-point Likert scale with 1 representing terrible and 10 representing fantastic. Interventionists reported positive impressions at the mid-point assessment (M=8.875, SD=0.78) and similarly positive impressions at the summative assessment (M=9, SD=0.89). On the summative assessment, interventionists were asked to share their perspectives regarding the SEL foundational practices at the clinical day treatment program. The purpose of assessing these components was to be able to anticipate the rejection of this programming before being taken to scale (Schwartz & Baer, 1991) and to assess the buy-in of staff, as developing buy-in for an intervention is crucial (Cook et al., 2019; Jones et al., 2018). Interventionists were asked to strongly agree (4), agree (3), disagree (2), or strongly disagree (1) with each practice. All ratings are provided in Table 4.1. There were four components that the interventionists who responded unanimously strongly agreed with: regularly having opportunities to provide feedback or input to my school’s SEL team to help move our work forward, believing that social and emotional competence is related to academic success, being committed to promoting social and emotional competence in my students, and feeling encouraged to reflect on and continuously improve my own social and emotional competence. The lowest ranking items included being involved in developing my school’s vision for schoolwide SEL (M = 3), my school having a shared strategic plan for schoolwide SEL (M = 3), and knowing how my school is measuring success when it comes to implementation schoolwide (M = 2.8).

The qualitative responses provided by interventionists were analyzed using thematic analysis (Braun & Clarke, 2006) to examine the social acceptance of implementing the Second Step Social-Emotional Learning curriculum and to provide further details and context to explain
these quantitative results. Three core themes emerged, as detailed in Figure 4.1, which is included at the end of this chapter. The core themes are *high enthusiasm, emotional management of interventionists, and practicality* with multiple micro-themes also being identified. Although practical challenges of implementation will be examined in the next section it is notable that practical considerations were relevant to acceptability in this study.

Interventionists’ qualitative responses showed a *high level of enthusiasm* for the process of implementing the Second Step curriculum with six micro-themes being identified: *collaboration, creativity in adapting lessons, program fit, student engagement, student generalization of skills, and SEL skills of interventionists*. The majority of verbal and written responses of interventionists were positive with interventionists indicating a great deal of excitement, involvement, ownership, and empowerment over implementation. The level of enthusiasm was captured eloquently by an SEL leadership team member who stated in the end of year focus group that she had never heard this level of enthusiasm nor the skill generalization about a programming initiative in the CDT program. Furthermore, multiple interventionists indicated that they “really enjoyed the process” with one stating “truly, Second Step went really well for us. We’ve consistently said and felt that way.”

One micro-theme related to the enthusiasm of interventionists was the *collaboration* within each classroom team. One classroom team opted to have the teacher and the clinician to co-teach the first unit and within this partnership there was a “good balance” with each individual bringing their own strengths. The other classroom team chose to have an additional classroom meeting during which they reviewed the upcoming lesson and daily practice activities. All interventionists in this classroom team indicated that this collaboration session was essential to their implementation efforts. Overall, both classroom teams indicated that they felt a great deal
of support and collaboration from each other and their SEL coaches. One interventionist shared that although it was rarely discussed, the SEL coaches were essential to providing praise and positive feedback, which was highly motivating to them. Interventionists also expressed that the Second Step lessons were a meaningful opportunity to connect individually with students and build relationships.

Another identified micro-theme was interventionists were able to engage their own creativity and their knowledge of their students to add to or adapt lessons. This was particularly evident when interventionists were asked to recall their fondest memories of Second Step implementation in the end of year focus group. Many of the interventionists shared examples of lessons or activities they had adapted for students, as compared to those scripted in the curriculum. For instance, one interventionist shared that one of her many favorite memories was when each student made posters about the coping strategies and presented those posters to school staff. She discussed that students had such pride in presenting their posters and having the experience of an audience. Another interventionist shared a favorite memory of getting sunglasses for all of the students so they could replicate one of scenes from a Second Step coping strategy video.

Interventionists explained how the Second Step curriculum was aligned with the program. One interventionist noted that implementing this curriculum takes “what we’re already doing and increases the intensity and dosage of it in a scripted and structured way.” Interventionists were also particularly excited when students engaged in the lessons and when students utilized the coping strategies during the school day to calm-down. One interventionist even discussed that her students used the Second Step strategies at home to de-escalate
themselves. Additionally, interventionist responses showed the importance of SEL coping strategies for the adults with one interventionist sharing that she “has coping skills now.”

The second theme related to the social acceptance of the Second Step curriculum is the emotional management of interventionists. Interventionists reported feeling overwhelmed and sometimes disjointed at the beginning of implementation and were concerned that the curriculum and strategies would not be effective for students. It was evident that there was an emotional management component for staff of learning these new procedures and skills. Some interventionists were worried if the curriculum was too silly and if students would be able to engage in the lessons and use the skills. There appeared to be an underlying belief that students attending CDT are unique in their needs and that curriculums and practices may not “work for our students,” even if they are evidence-based. Interventionists indicated that they wanted to reassure others who would implement the curriculum that it was effective and that “it sounds like way more work than it is.” The third theme related to social validity was practicality, which will be reported in the next section.

Practicality

This question seeks to determine the practical challenges that emerged during the initial implementation of the Second Step Social-Emotional Learning curriculum. Practical challenges involve both management assessment (e.g., the expertise and experience of researchers and educators) and resource assessment (e.g., physical space, technology requirements; Tickle-Degnen, 2013). Seven qualitative themes emerged during analysis: paperwork, schedule changes, planning and communicating the plan to the classroom team, role of interventionists, experience of interventionists, differentiation, and lesson structure. These themes are depicted in Figure 4.2, which is included at the end of the chapter.
Paperwork was one of the seven identified themes related to practicality. Interventionists expressed that they viewed the assessment tools (i.e., weekly reflection, lesson planning template) as being not useful with lesson preparation. Interventionists expressed that the planning tools were too structured, repetitive, and didn’t truly capture what worked and what didn’t in the lessons. Paperwork was ultimately viewed as a monitoring tool rather than a support or reflection structure. The schedule was also discussed by many participants with some referencing adjusting their schedule mid-year and others mentioning inclement weather days. One interventionist mentioned that there were many times that students were not all in the room at the same time and that someone was missing the lesson. Interventionists also indicated that starting implementation part-way through the school-year was challenging due to schedule adjustments. Another identified practical challenge was planning time and communicating those lesson plans to classroom staff. Although some interventionists (i.e., teachers, clinicians) were greatly appreciative for the additional planning time during the school-day, classroom staff struggled without the classroom teacher and clinician. Also of concern was that there was not a structured time for the teacher and clinician to communicate lesson content and plans to staff. One interventionist discussed that she wished that she had communicated more to staff but felt that she was figuring out her own performance and role before she felt she could coach others. Interventionists expressed that they would like more differentiation and individualized supports for students, including the use of more visual supports and pre-teaching of skills. As hypothesized, adjustments should be made to the expectations of the paperwork involved in the program implementations, and systems should also be developed to support continued collaborative planning times to focus on the implementation of the program itself as well as the differentiation of the program across student needs.
Adaptability

The adaptability of an intervention is similar to the feasibility dimensions of practicality and integration (Gadke et al., 2021). Although practicality and integration refer to the ability to deliver an intervention while using existing resources, adaptability refers to whether an intervention can be modified to meet the needs of the implementation setting (Lyon et al., 2019). These needs can include those of the implementers and students in an alternative setting. Gadke and colleagues (2021) recommend asking the following questions to assess adaptability: Are the tools needed for implementation universal? Can the program be easily adjusted to fit across various school settings? Is it necessary to adhere to a rigid set of requirements to implement the intervention? Recommended methods of assessing adaptability include demonstrating effects across elementary, middle-, and high-school grade levels (Bowen et al., 2009) and comparing standard intervention outcomes to those with a different format or population (Gadke et al., 2021). Considering the scale of this study, adaptability was examined by determining the extent to which interventionists adapted lesson materials.

Interventionists were asked to rate the extent to which they 1) left out or skipped parts of the lessons, 2) changed the lesson significantly from the way it was written, 3) added new material to the lesson, and 4) differentiated the daily practice activities. According to the responses provided by interventionists, they did not omit or skip lesson parts in 36% of the lessons, they occasionally left out sections in 40% of lessons, they often omitted lesson parts in 22% of lessons, and they never reported having skipped all parts of any lesson. In 55% of lessons interventionists did not change the lesson significantly from the way it was written although they did occasionally make significant changes in 32% of lessons, and often in 14% of lessons. Interventionists were asked to rate the extent to which they added new material and they reported
that they never added new material to 50% of lessons, occasionally to 32% of lessons, often to 18%, and always in 0% of lessons. Interventionists indicated that they never differentiated the daily practice activities in 41% of lessons, occasionally differentiated in 41%, often in 12%, and always in 6% of activities. Table 4.2, which is included at the end of the chapter, contains a summary of these results.

Interventionists were asked qualitative questions in order to provide context and additional details to expand on their quantitative ratings of adaptability. These qualitative responses were analyzed using thematic analysis (Braun & Clarke, 2006). Four themes of adaptability were identified, including who delivers the lesson, how the lesson was delivered, teaching strategies, and individualization. These themes are included at the end of this chapter in Figure 4.3. The first adaption, who delivers the lesson, was due to the Second Step curriculum being designed to be implemented by the classroom teacher whereas in the clinical day treatment program the clinician, teacher, and instructional staff implemented components of the curriculum. The Second Step lessons were designed to be taught once a week in a 45-minute session but in the CDT setting the lesson was delivered in two 30-minute lessons. Regarding teaching strategies, three micro-themes emerged: increased visuals (e.g., individual posters for student desks), increased active participation strategies (e.g., responding via dry-erase board, illustrating responses), and decreased group work due to COVID-19 restrictions (e.g., pair shares became group responses). The fourth theme of adaption, individualization, was related to interventionists utilizing their creativity and knowledge of their students to make specific lesson adjustments, such as using emotion charades instead of movement conversations with partners and developing social scenarios that are relevant to students. As hypothesized, the program was implemented as designed, and thus a good fit for the CDT program, however it was also an
adaptable program in that various staff could implement it, small modifications could be made considering time and resource constraints, and that the unique needs of individual students could be addressed.

**Implementation**

Implementation refers to the extent to which intervention procedures are followed as intended, including traditional structural components such as examining the interventionist’s adherence to intervention procedures via observation and self-report (Dusenbury et al., 2003) as well as broader, and multidimensional models of treatment integrity (Sanetti et al., 2011). Modern dimensions include exposure (i.e., amount, frequency, and length of intervention sessions), quality of delivery (i.e., skill, enthusiasm, understanding), and participant responsiveness (i.e., engagement, enjoyment, and attentiveness; Sanetti et al., 2011). For this study, an observation measure was used by the SEL coaches to monitor the implementation of lessons and a self-report measure was utilized by interventionists to monitor the daily practice activities.

The observation measure included the traditional components of *lesson fidelity* as well as *lesson preparation, student engagement strategies, teaching strategies, and management strategies*. Across both sites, implementation was strong (M = 94.64%, SD = 6.31, N = 36) with similar implementation fidelity across each program (M = 95.38%, SD=5.15, N=20) and (M = 93.72%, SD = 7.42, N=16). SEL coaches rated each implementation feature as a 2, 1, or 0 with 2 representing clearly evident, 1 meaning partially evident, and 0 signifying not evident. The use of student engagement strategies was an area of relative strength during implementation (Mean = 2.0, SD = 0) with it being clearly evident in every observation across both sites that interventionists tailored examples/scenarios to students’ context (Mean = 2.0, SD = 0), related
concepts to students’ experiences (Mean = 2.0, SD = 0), and checked for comprehension (Mean = 2.0, SD = 0). There were two additional items that were clearly evident in every observation with interventionists using low-key responses to deal with off-task behavior (Mean = 2.0, SD = 0) and breaking down directions for optimal understanding (Mean = 2.0, SD = 0). The domains of lesson preparation (Mean = 1.86, SD = 0.35), teaching strategies (Mean = 1.89, SD = 0.31), and management strategies (Mean = 1.89, SD = 0.31) were also rated highly. Lesson fidelity was the lowest rated domain (Mean = 1.79, SD = 0.41) with teaching all lesson parts (Mean = 1.72, SD = 0.45) and using an attention signal (Mean = 1.73, SD = 0.44) being two of the lowest rated items. Another item, partnering students quickly and effectively, was the lowest rated item (Mean = 1.5, SD = 0.5), although this practice was only used in two observations. All lesson implementation data is included in Table 4.3, which is included at the end of the chapter.

Additionally, interventionists were asked to self-report intervention exposure and their own enthusiasm during lesson implementation. Based on available responses, interventionists reported that they completed 95.45% of lesson components (SD = 12.24) and 68.42% of the daily practice activities. Notably, the completion percentage for daily practice activities was lower in the beginning and increased over time. In regard to enthusiasm, the teacher and the clinician reported how often they were in the room and engaged with the lessons. Teachers were engaged an average of 84.52% of the time (SD = 27.25) and clinicians 98.75% (SD = 5.45).

To provide further data and context, the clinician and the teacher were asked to provide further details about implementation after each lesson. Their qualitative responses were analyzed using thematic analysis (Braun & Clarke, 2006) and three themes emerged that interventionists found relevant: student engagement and comprehension, teaching strategies, and management strategies. The clinician and teacher dyad indicated that student engagement and student
comprehension was a frequently discussed component of implementation for the classroom team. Student engagement included both positive components (e.g., all students were engaged, specific students were more engaged than typical) as well as difficulties (e.g., a student was disruptive, multiple students transitioned in and out of the classroom during the lesson). Interventionists also frequently focused on the knowledge that students developed, including the use of vocabulary, identifying complex feelings, making connections to previous lessons, and positive class discussions, as well as, when students struggled to engage in the lesson, be vulnerable with the subject matter, and to grasp specific content. The micro-themes related to teaching strategies were co-teaching the lesson, balancing teaching the lesson content and implementing the CDT behavior system, as well as staff modeling. There were three micro-themes related to management strategies: pacing, using behavior-specific praise for students, and responding to off-task behavior. Early in the implementation period, interventionists were focused on pacing whereas by the end of the implementation phase they were focused on more nuanced techniques related to using behavior specific praise and responding to off-task behavior. These results are included at the end of the chapter in Figure 4.4.

Effectiveness

Second Step’s Summative Knowledge Assessment

Although the primary goal of feasibility research is to focus on the process (Gadke et al., 2021), it is also prudent to determine if the intervention is showing promising evidence of effectiveness (Orsmond & Cohn, 2015). For this study, students’ social-emotional knowledge and competence were examined to determine if there was evidence of effectiveness. Student’s social-emotional knowledge was assessed through the use of Second Step’s Summative Knowledge Assessment. A summary of these results is included in Table 4.4 at the end of this
chapter. On this assessment, the student mean was 84% with 60% of students scoring 93% or better. Thirty percent of students scored between 70-73% with 10% scoring 40%. A majority (76%) of questions had an 80% or greater percentage of students who responded correctly. There were 7 questions that all students who completed the assessment answered correctly (i.e., 1b, 1c, 2a, 2b, 4a, 4c, 8b). All students were able to identify that when you have empathy for people you listen with attention to what they are saying and not tell others how they should feel. All students identified that the following examples are not the best way to demonstrate assertiveness: stating “Hey, get out of the way!” and expressing yourself by saying “Oh…I don’t know, but I think I was in front of you, maybe.” Students were also able to state that when a friend is disappointed it is not compassionate to look at your friend very sadly nor ignore her and hope she will be better soon. All students were also able to identify that when you are anxious it is not helpful to clench your teeth. All but one of these questions (86%) include the students identifying what not to do.

On this assessment there were three responses that were most problematic for students (i.e., 4d, 6c, 7b) with 50% of students indicating the correct answer in these cases. One response that was more challenging for students overall was regarding identifying a compassionate act. Fifty percent of students indicated that a compassionate thing to do for a friend is wish that she felt better. Although wishing that someone feels better is kind and is a positive sentiment, it is important to emphasize to students that compassion includes an active component that can impact others. Also, it is important to consider is that the question format may have been confusing for students and contributing to students answering incorrectly, as this question asks for one response whereas multiple other questions state select all that apply. The question format is especially pertinent considering that four out of five students who indicated the wrong response also indicated the correct answer. It is likely that if students had been told specifically
to select the best answer, students may not have selected this incorrect response. Only one student indicated response with no other answers.

Another challenging question stated, “select the first two things you should do to begin to calm down.” Unit 2 of the Second Step curriculum focuses on developing the ability of students to manage their own strong feelings before their feelings escalate, which could result in negative consequences (Second Step curriculum, p. 91). The Second Step procedure includes the following steps: 1) Stop – use your signal, 2) Name your feeling, and 3) Calm down: breathe, count, use positive self-talk. On the Second Step assessment, 50% of students were able to identify that one of the first things that you should do to begin to calm down is to name your feeling. The last question that students particularly struggled with states, “you are playing a game at recess. You notice that someone on the other team is cheating. You are so angry! What can you do to calm down?” Only fifty percent of students indicated that belly breathing was a strategy that could be used to calm down.

**The Devereux Student Strength Assessment**

The DESSA is a *standardized, norm-referenced rating scale* that measures *social-emotional competencies* in children and youth in kindergarten through eighth grades (LeBuffe et al., 2014). Social-emotional knowledge, as discussed in the previous section, is important and can be a useful tool for determining what knowledge students can and are motivated to articulate, however, *social-emotional competence* focuses on student behavior and actions. The DESSA is organized into eight social-emotional competencies, including self-awareness, social-awareness, self-management, goal-directed behavior, relationship skills, personal responsibility, decision making, and optimistic thinking. These combination of these eight competencies is the overall competency score (LeBuffe et al., 2014).
The DESSA was administered in March and May with the classroom teacher and the clinician each completing the rating scale separately. Results are included at the end of the chapter in Table 4.5. Results indicate trends toward improvement across all eight domains and the overall competence score. In the domain of personal responsibility, the student average in March was a T-Score of 39.45 (SD = 6.58) and in May it was 40.74 (SD = 8.33). Optimistic thinking for all students increased from 40.83 (SD = 7.05) in March to 41.65 (SD = 6.72) in May. In March, interventionists rated goal-directed behavior for all students at 38.78 (SD = 7.94) and in May this domain had a T-Score of 42.59 (SD = 8.73). Social awareness was rated at 40.04 (SD = 7.86) in March and then 42.64 (SD = 8.08) in May. The domain of decision making was initially rated in March at 39.26 (SD = 7.41) and then in May at 40.3 (SD = 6.98). The final three competences include improvements in relationship skills (March: M = 40.82, SD = 5.92; May: M = 42.83, SD = 6.85), self-awareness (March: M = 40.74, SD = 6.44; May: M = 42.83, SD = 6.01), and self-management (March: M = 37.65, SD = 8.38, May: M = 39.39, SD = 9.28). Overall, interventionist responses indicated that students’ social-emotional competence increased from an average of 40.27 in March (SD = 7.44) to 42.27 in May (SD = 7.27). Figure 4.5 shows a descriptive illustration of these positive trends in the data.

**Qualitative Feedback**

In addition to the quantitative results presented previously, it is also important to consider how staff perceived the effectiveness of the Second Step curriculum. Using thematic analysis (Braun & Clarke, 2006), relevant data was analyzed to provide additional context for the quantitative results. Overall, staff provided general feedback, such as “our students seem to be very receptive to the Second Step program thus far” and “my students are responding very well to the Second Step curriculum.” There were three themes of effectiveness that were identified:
generalizability, student knowledge, and staff knowledge. One interventionist indicated that “students have generalized the content across academic/home settings” and another interventionist indicated that students are “applying it [Second Step’s coping skills] through in-class activities.” Additionally, interventionists indicated growth in students’ knowledge of emotional awareness, relationship building skills, empathy, describing their own feelings, identifying complex feelings, understanding different perspectives, and conversing with each other. Interventionists also indicated that the Second Step curriculum was effective for some staff members developing coping skills. A staff member noted that “staff were really empowered because they were learning all of those skills along with the kids” as well as one interventionist stating that “I have coping skills now.” These results are included in the end of the chapter in Figure 4.6.

Taken all together, results suggest that it is feasible to utilize the Second Step curriculum within this clinical day treatment program. More specifically, it is practical to implement and feasible to adapt the curriculum for this setting. It is also possible to implement the curriculum as designed (with a few adaptations). All of these components are considered socially acceptable to interventionists and additionally there are promising signs of effectiveness for students. These results will be discussed in the next chapter.

**Question 2: Devereux Student Strengths Assessment System**

This study also sought to determine if it was feasible to implement the Devereux Student Strengths Assessment System (DESSA) in this clinical day treatment setting. This question addressed 2 dimensions of feasibility, including practicality and adaptability.

**Practicality**
This question was designed to determine the practical challenges that emerged during the initial implementation of the DESSA. All qualitative data sources, including the formative and summative assessments, an end of year focus group, a weekly self-reflection, meeting notes from leadership meetings and planning sessions, procedural documentation, training resources, and lesson plans were reviewed for relevant information. In reviewing these data sources two practical challenges were identified: elevated rating scores on the first administration and lack of clinician perspective. A visual of these dimensions is included in Figure 4.7 at the end of the chapter. On the first administration of the DESSA, individual scores were inflated, as compared to what was anticipated. The overall social emotional composite (SEC) results indicate that 18% of the students (i.e., two students) were rated as having strong social and emotional competencies and 55% of the students (i.e., six students) were rated as having typical skills. Only 27% of students (i.e., three students) were rated as at risk for developing or exhibiting social-emotional problems, yet the majority of students are placed in this alternative school setting because of their weak social and emotional skills and related risks. Notably the SEC represents all competency domains, rather than one skill. The CDT leadership team attributed these elevated ratings to the combination of the strengths-based perspective that was emphasized by DESSA trainers and the positive CDT approach. It was hypothesized that due to this combination the classroom-teachers had been overly attentive to students’ strengths and thus the scores were inflated. Only the classroom teacher provided ratings for this initial rating period. The leadership team opted to have the SEL Coordinator re-train staff and not use the results from initial rating period in January. The DESSA T-Scores are included at the end of this chapter in Table 4.6. During the March rating period, ratings were aligned with expectations with 55% of student scores in the need descriptor, 45% in the typical descriptor, and 0% in the strength descriptor.
The May rating period reflected 45% of students in need, 55% typical, and 0% in strength. These results are included at the end of this chapter in Table 4.7. Notably, these results are reported in percentages due to one student’s scores from their teacher and their clinician falling in different descriptor categories.

The second practical challenge that arose during the implementation of DESSA was that the clinician perspective was not taken into consideration during the initial rating period. The DESSA rating scale is designed to be completed by an individual rater (i.e., teacher, parent) and not as a collaboration between raters. Typically, the classroom teacher completes the DESSA rating scale, which is how the initial rating period was implemented within the CDT. After examining the data from the initial ratings, the CDT leadership team opted to include two raters for future assessments: the classroom teacher and each student’s clinician to provide a more complete perspective on the social-emotional skills of students in a variety of in-school contexts.

**Adaptability**

Adaptability refers to whether an intervention can be modified to meet the needs of the implementation setting (Lyon et al., 2019). For this study, the Devereux Student Strengths Assessment (DESSA) system was adapted for use within the context of one organization’s clinical day treatment program. Thematic analysis (Braun & Clarke, 2006) was conducted on qualitative data sources (i.e., meeting notes from leadership meetings and planning sessions, procedural documentation, training resources) to determine how DESSA was adapted in one clinical day treatment program. Two themes of variation occurred between the implemented system when compared to the original system: *all students were administered the DESSA rating scale and data was not used for instructional purposes*. Figure 4.8 includes the visual representation of these themes and is included at the end of the chapter.
The DESSA system is designed as a universal screening and progress monitoring system. The typical procedure for the DESSA system is to use the DESSA-mini to screen all students in a population for social-emotional needs. Utilizing a screener allows for all students to be assessed in a cost and time-efficient manner. Students who are rated as having low social-emotional competence should be administered the full DESSA rating scale to understand the needs and strengths of each student and to be considered for additional instruction. Next, a plan should be made to provide further instruction to students on a classwide or individual level. The DESSA system includes intervention supports that focus on growth strategies (i.e., self-awareness, self-management, social awareness, relationship skills, goal-directed behavior, personal responsibility, decision making, optimistic thinking) and foundational practices (i.e., fixed and growth mindset, peer coaching, routines and rituals, trauma informed practices). All students should be progress monitored with either the DESSA rating scale or the DESSA-mini.

Within the CDT setting this procedure was adapted. First, instead of utilizing the DESSA-mini as a screener, all students were administered the full DESSA rating scale. The predominate rationale behind this adaptation was that the majority of students receive services within this alternative setting due to challenges with social and emotional skills and thus would be identified on the screener. It was hypothesized that it would be more cost and time efficient for teachers and clinicians to not utilize the DESSA-mini. This procedure was easily adapted. Next, the DESSA system recommends that the data be utilized to provide additional intervention. This procedure was not adopted within the CDT due to the simultaneous implementation of the Second Step curriculum with the DESSA assessment system. Quantitative and qualitative data indicated that interventionists felt overwhelmed and disjointed at the beginning of implementation and thus it was deemed not prudent to focus on providing individualized or
further group intervention until the Second Step curriculum was fully integrated into practice. Furthermore, it is essential to establish universal supports before providing additional layers of selected and individualized support. These two variations to the DESSA system were easily implemented while also monitoring the social-emotional competence of students and providing a baseline for further years of implementation.

Taken all together, results suggest that the DESSA is feasible, specifically practical and adaptable, for use within a clinical day treatment program. These results will be discussed in the next chapter.

Table 4.1

<table>
<thead>
<tr>
<th>Foundational Components</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I regularly have opportunities to provide feedback or input to my school’s SEL team to help move our work forward.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>My school provides opportunities for me and others in our school community to learn more about SEL at least once a year.</td>
<td>3.6</td>
<td>0.8</td>
</tr>
<tr>
<td>I believe that social and emotional competence is related to students’ academic success.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>I am committed to promoting social and emotional competence in my students.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>I understand my role in promoting schoolwide SEL.</td>
<td>3.6</td>
<td>0.49</td>
</tr>
<tr>
<td>My school has developed a vision for schoolwide SEL.</td>
<td>3.4</td>
<td>0.49</td>
</tr>
<tr>
<td>I was involved in developing my school’s vision for schoolwide SEL.</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>My school collected information about our current SEL practices, policies, resources, and needs within the last year.</td>
<td>3.8</td>
<td>0.4</td>
</tr>
<tr>
<td>My school has shared a strategic plan for schoolwide SEL.</td>
<td>3</td>
<td>0.63</td>
</tr>
<tr>
<td>I know how my school is measuring success when it comes to implementation schoolwide.</td>
<td>2.8</td>
<td>0.4</td>
</tr>
</tbody>
</table>
I have the resources I need to implement SEL at my school. 3.8 0.4
I have sufficient planning time to prepare to effectively implement the SEL approach adapted by my school. 3.6 0.49
I am able to find the time needed to provide explicit SEL instruction to my students. 3.6 0.49
I attend professional learning opportunities to cultivate my own social and emotional competence. 3.6 0.49
I feel encouraged to reflect on and continuously improve my own social and emotional competence. 4 0
Data are collected regularly on students’ social and emotional skills in order to identify schoolwide trends, strengths, and needs. 3.4 0.49

Table 4.2
Adaptability of the Second Step Curriculum

<table>
<thead>
<tr>
<th>Question</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent did you …</td>
<td></td>
</tr>
<tr>
<td>Leave out or skip parts of the lesson?</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>36.36</td>
</tr>
<tr>
<td>Occasionally</td>
<td>40.91</td>
</tr>
<tr>
<td>Often</td>
<td>22.73</td>
</tr>
<tr>
<td>Always</td>
<td>0</td>
</tr>
<tr>
<td>Change the lesson significantly from the way it was written?</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>54.55</td>
</tr>
<tr>
<td>Occasionally</td>
<td>31.82</td>
</tr>
<tr>
<td>Often</td>
<td>13.64</td>
</tr>
<tr>
<td>Always</td>
<td>0</td>
</tr>
<tr>
<td>Add new material to the lesson?</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>50.0</td>
</tr>
<tr>
<td>Occasionally</td>
<td>31.82</td>
</tr>
<tr>
<td>Often</td>
<td>18.18</td>
</tr>
<tr>
<td>Always</td>
<td>0</td>
</tr>
<tr>
<td>Differentiate the daily practice activities?</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>41.18</td>
</tr>
<tr>
<td>Occasionally</td>
<td>41.18</td>
</tr>
<tr>
<td>Often</td>
<td>11.76</td>
</tr>
<tr>
<td>Always</td>
<td>5.88</td>
</tr>
</tbody>
</table>
### Table 4.3

**Implementation of the Second Step Curriculum**

<table>
<thead>
<tr>
<th>Category/Domain</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has material ready beforehand</td>
<td>36</td>
<td>1.89</td>
<td>0.31</td>
</tr>
<tr>
<td>Seems familiar with lesson activities</td>
<td>36</td>
<td>1.83</td>
<td>0.37</td>
</tr>
<tr>
<td><strong>Lesson Fidelity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaches all lesson parts completely and sequentially</td>
<td>36</td>
<td>1.72</td>
<td>0.45</td>
</tr>
<tr>
<td>Follows the script or covers the same ideas in own words</td>
<td>36</td>
<td>1.86</td>
<td>0.35</td>
</tr>
<tr>
<td><strong>Student Engagement Strategies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tailors examples/scenarios to students’ context</td>
<td>36</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Relates concepts to students’ experiences</td>
<td>36</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Checks for comprehension</td>
<td>36</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Teaching Strategies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses think-time</td>
<td>36</td>
<td>1.86</td>
<td>0.35</td>
</tr>
<tr>
<td>Uses nonjudgmental responses</td>
<td>36</td>
<td>1.89</td>
<td>0.31</td>
</tr>
<tr>
<td>Models skills</td>
<td>36</td>
<td>1.92</td>
<td>0.28</td>
</tr>
<tr>
<td><strong>Management Strategies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses an attention signal</td>
<td>26</td>
<td>1.73</td>
<td>0.44</td>
</tr>
<tr>
<td>Partners students quickly and effectively</td>
<td>2</td>
<td>1.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Follows pacing guidelines described in the Teaching Guide</td>
<td>36</td>
<td>1.81</td>
<td>0.4</td>
</tr>
<tr>
<td>Uses low-key responses to deal with off-task behavior</td>
<td>36</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Breaks down directions for optimal understanding</td>
<td>36</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>
### Table 4.4
Second Step Summative Knowledge Assessment

<table>
<thead>
<tr>
<th>Question/Responses</th>
<th>Correct Response</th>
<th>% of Students who Responded Correctly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When you have empathy for people, you (select all that apply)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notice how they are feeling</td>
<td>Yes</td>
<td>70</td>
</tr>
<tr>
<td>Listen with attention to what they are saying</td>
<td>Yes</td>
<td>100</td>
</tr>
<tr>
<td>Tell them how they should feel</td>
<td>No</td>
<td>100</td>
</tr>
<tr>
<td>Try to understand their point of view</td>
<td>Yes</td>
<td>90</td>
</tr>
<tr>
<td>2. Select the best example of being assertive when someone cuts in front of you in line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hey, get out of the way!</td>
<td>No</td>
<td>100</td>
</tr>
<tr>
<td>Oh…I don’t know, but I think I was in front of you, maybe.</td>
<td>No</td>
<td>100</td>
</tr>
<tr>
<td>Who do you think you are—the king of the world?</td>
<td>No</td>
<td>90</td>
</tr>
<tr>
<td>It is not okay to cut in front of me. The end of the line is back there</td>
<td>Yes</td>
<td>90</td>
</tr>
<tr>
<td>3. There is a new boy in your class. You've decided to start a conversation with him so you can get to know him better. What are some things you can do to keep a conversation going? (Select all that apply).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listen to him with attention when he is talking</td>
<td>Yes</td>
<td>90</td>
</tr>
<tr>
<td>Face him when you are talking with him</td>
<td>Yes</td>
<td>80</td>
</tr>
<tr>
<td>Use friendly, respectful, sincere words and tone of voice</td>
<td>Yes</td>
<td>70</td>
</tr>
<tr>
<td>Ask more questions to keep the conversation going</td>
<td>Yes</td>
<td>80</td>
</tr>
<tr>
<td>4. Jill was very excited that her older sister was coming home for a visit. Then she found out that her sister had a change of plans and couldn't make it home. Jill is very disappointed. What is a compassionate thing you could do for Jill?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignore her and hope she will feel better soon</td>
<td>No</td>
<td>100</td>
</tr>
<tr>
<td>Tell her you are sorry her sister is not coming for a visit and invite her over to your house to watch a movie instead</td>
<td>Yes</td>
<td>90</td>
</tr>
<tr>
<td>Look at her very sadly</td>
<td>No</td>
<td>100</td>
</tr>
<tr>
<td>Wish that she felt better</td>
<td>No</td>
<td>50</td>
</tr>
<tr>
<td>5. You experience strong emotions only in your brain. (True/False)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>True</td>
<td>No</td>
<td>90</td>
</tr>
<tr>
<td>False</td>
<td>Yes</td>
<td>80</td>
</tr>
<tr>
<td>6. Select the first two things you should do to begin to calm down.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stop—use your signal</td>
<td>Yes</td>
<td>70</td>
</tr>
<tr>
<td>Run</td>
<td>No</td>
<td>90</td>
</tr>
<tr>
<td>Name your feeling</td>
<td>Yes</td>
<td>50</td>
</tr>
<tr>
<td>Lie down</td>
<td>No</td>
<td>80</td>
</tr>
</tbody>
</table>
7. You are playing a game at recess. You notice that someone on the other team is cheating. You are so angry! What can you do to calm down?
   Call the kid a cheater, and make sure everyone hears you: No 90
   Belly breathe: Yes 50
   Count to 10: Yes 70
   Tell yourself: “Chill. Maybe he doesn’t know the rules.” Yes 80

8. Anxiety is the uneasy feeling you get when you are worried about something that might or might not happen. When you feel anxious it is good to (select all that apply):
   Yell: No 90
   Clench your teeth: No 100
   Use self-talk to tell yourself that it will be okay: Yes 90
   Talk to a grown-up: Yes 80

---

Table 4.5

<table>
<thead>
<tr>
<th>Competencies</th>
<th>March M</th>
<th>March SD</th>
<th>May M</th>
<th>May SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Responsibility</td>
<td>39.45</td>
<td>6.58</td>
<td>40.74</td>
<td>8.33</td>
</tr>
<tr>
<td>Optimistic Thinking</td>
<td>40.83</td>
<td>7.05</td>
<td>41.65</td>
<td>6.72</td>
</tr>
<tr>
<td>Goal-Directed Behavior</td>
<td>38.78</td>
<td>7.94</td>
<td>42.59</td>
<td>8.73</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>40.04</td>
<td>7.86</td>
<td>42.64</td>
<td>8.08</td>
</tr>
<tr>
<td>Decision Making</td>
<td>39.26</td>
<td>7.41</td>
<td>40.3</td>
<td>6.98</td>
</tr>
<tr>
<td>Relationship Skills</td>
<td>40.82</td>
<td>5.92</td>
<td>42.83</td>
<td>6.85</td>
</tr>
<tr>
<td>Self-Awareness</td>
<td>40.74</td>
<td>6.44</td>
<td>42.83</td>
<td>6.01</td>
</tr>
<tr>
<td>Self-Management</td>
<td>37.65</td>
<td>8.38</td>
<td>39.39</td>
<td>9.28</td>
</tr>
<tr>
<td>Social-Emotional Composite</td>
<td>40.27</td>
<td>7.44</td>
<td>42.27</td>
<td>7.27</td>
</tr>
</tbody>
</table>
Table 4.6
*DESSA T-Scores*

<table>
<thead>
<tr>
<th>Competencies</th>
<th>January M</th>
<th>January SD</th>
<th>March M</th>
<th>March SD</th>
<th>May M</th>
<th>May SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Responsibility</td>
<td>46.86*</td>
<td>10.08*</td>
<td>39.45</td>
<td>6.58</td>
<td>40.74</td>
<td>8.33</td>
</tr>
<tr>
<td>Optimistic Thinking</td>
<td>44.50*</td>
<td>11.3*</td>
<td>40.83</td>
<td>7.05</td>
<td>41.65</td>
<td>6.72</td>
</tr>
<tr>
<td>Goal-Directed Behavior</td>
<td>41.58*</td>
<td>9.62*</td>
<td>38.78</td>
<td>7.94</td>
<td>42.59</td>
<td>8.73</td>
</tr>
<tr>
<td>Social Awareness</td>
<td>44.33*</td>
<td>11.87*</td>
<td>40.04</td>
<td>7.86</td>
<td>42.64</td>
<td>8.08</td>
</tr>
<tr>
<td>Decision Making</td>
<td>41.08*</td>
<td>9.86*</td>
<td>39.26</td>
<td>7.41</td>
<td>40.3</td>
<td>6.98</td>
</tr>
<tr>
<td>Relationship Skills</td>
<td>46.5*</td>
<td>9.75*</td>
<td>40.82</td>
<td>5.92</td>
<td>42.83</td>
<td>6.85</td>
</tr>
<tr>
<td>Self-Awareness</td>
<td>42.5*</td>
<td>10.97*</td>
<td>40.74</td>
<td>6.44</td>
<td>42.83</td>
<td>6.01</td>
</tr>
<tr>
<td>Self-Management</td>
<td>39.75*</td>
<td>11.17*</td>
<td>37.65</td>
<td>8.38</td>
<td>39.39</td>
<td>9.28</td>
</tr>
<tr>
<td>Social-Emotional Composite</td>
<td>46.18*</td>
<td>9.90*</td>
<td>40.27</td>
<td>7.44</td>
<td>42.27</td>
<td>7.27</td>
</tr>
</tbody>
</table>

*Note: DESSA T-Scores were deemed invalid and should not be utilized.*

Table 4.7
*Percentage of Students per Scale Description on DESSA*

<table>
<thead>
<tr>
<th></th>
<th>N Students</th>
<th>N Ratings</th>
<th>% of Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>11*</td>
<td>11*</td>
<td>27.27%*</td>
</tr>
<tr>
<td>Need</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typical</td>
<td></td>
<td></td>
<td>54.55%*</td>
</tr>
<tr>
<td>Strength</td>
<td></td>
<td></td>
<td>18.18%*</td>
</tr>
<tr>
<td>March</td>
<td>11</td>
<td>22</td>
<td>54.55%</td>
</tr>
<tr>
<td>Need</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typical</td>
<td></td>
<td></td>
<td>45.45%</td>
</tr>
<tr>
<td>Strength</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>May</td>
<td>11</td>
<td>22</td>
<td>45.45%</td>
</tr>
<tr>
<td>Need</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typical</td>
<td></td>
<td></td>
<td>54.55%</td>
</tr>
<tr>
<td>Strength</td>
<td></td>
<td></td>
<td>0%</td>
</tr>
</tbody>
</table>

*Note: DESSA T-Scores were deemed invalid and should not be utilized.*
Figures

Figure 4.1  
Second Step: Themes of Social Validity
Figure 4.2
*Second Step: Themes of Practicality*

![Diagram showing themes of practicality](image-url)
Figure 4.3
Second Step: Themes of Adaptability

Who Delivers Lesson

Individualized

Adaptability

How Lesson was Structured

Teaching Strategies
Figure 4.4
Second Step: Themes of Implementation

- Student Engagement & Comprehension
- Implementation Themes
- Management Strategies
- Teaching Strategies
Figure 4.5

Student Growth: DESSA Scores

![Student Growth: DESSA Scores](image-url)
Figure 4.6
Second Step: Effectiveness Themes
Figure 4.7
DESSA: Themes of Practicality

Strength-Based Ratings

Practicality

Multiple Raters

Figure 4.8
DESSA: Themes of Adaptability

All students administered DESSA rating scale

Adaptability Themes

Data not used for instructional purposes
CHAPTER 5

DISCUSSION

Summary of Findings

This retrospective case study examined the feasibility of implementing the Second Step Social-Emotional Learning curriculum and the Devereux Student Strengths Assessment system within a clinical day treatment program. Quantitative data sources (e.g., the Devereux Student Strengths Assessment, survey responses) and qualitative data sources (e.g., written feedback from educators, end of year focus group, meeting notes and procedural documents) were examined to evaluate the implementation process. The feasibility dimensions of social validity, practicality, adaptability, implementation, and effectiveness were assessed. Taken together, the results of this study suggest that within this one clinical day treatment program and under these contextual conditions (e.g., prioritization of programming, personnel, funding), it is feasible to implement the Second Step curriculum and the Devereux Student Strengths Assessment system. Furthermore, there is promising evidence to suggest that the students receiving this social-emotional learning programming demonstrated social-emotional growth.

Second Step

To examine the feasibility of implementing the Second Step curriculum the social validity, practicality, adaptability, implementation, and effectiveness were evaluated. Overall, interventionists had a favorable response to the Second Step curriculum and the process of implementation. Interventionists reported positive impressions at the mid-point assessment (M=8.875%, SD=0.78%) and similarly positive impressions at the summative assessment (M=9%, SD=0.89%). Using thematic analysis (Braun & Clarke, 2006), three core themes related to the social acceptability of this curriculum were identified: high enthusiasm, emotional
management of interventionists, and practicality. Interventionists reported a high level of satisfaction for the Second Step curriculum and the process of implementation, despite feeling overwhelmed and disjointed at times during the beginning of implementation. Seven qualitative themes related to practicality emerged during analysis: paperwork, schedule changes, planning and communicating the plan to the classroom team, role of interventionists, experience of interventionists, differentiation, and lesson structure. Each of these themes emphasize a particular challenge of implementation that can be adjusted before the scale-up of the intervention. Although there were practical challenges identified, the social validity of the intervention remained high. These results suggest that within this clinical day treatment program, it would be practical and socially acceptable to scale-up this intervention.

The teacher-clinician dyad reported how often they adapted the Second Step lessons, indicating that they did not omit or skip lesson parts in 36% of the lessons, did not change the lesson significantly from the way it was written in 55% of lessons, and never added new material to 50% of lessons. Qualitatively, four themes of adaptability were identified, including who delivers the lesson, how the lesson was delivered, teaching strategies, and individualization. Overall, interventionists did not report concerns with needing to adapt the Second Step lessons. These results suggest that the Second Step curriculum is adaptable for use within this clinical day treatment center.

The implementation of the Second Step curriculum was monitored by SEL coaches who used an observation measure which included lesson fidelity, lesson preparation, student engagement strategies, teaching strategies, and management strategies. Across both program sites, implementation was strong (M = 94.64%, SD = 6.31, N = 36) with similar implementation fidelity across each program (M = 95.38%, SD=5.15, N=20) and (M = 93.72%, SD = 7.42,
N=16). The use of student engagement strategies was an area of relative strength during implementation (Mean = 2.0, SD = 0) with it being clearly evident in every observation across both sites that interventionists tailored examples/scenarios to students’ context (Mean = 2.0, SD = 0), related concepts to students’ experiences (Mean = 2.0, SD = 0), and checked for comprehension (Mean = 2.0, SD = 0). There were two additional items that were clearly evident in every observation with interventionists using low-key responses to deal with off-task behavior (Mean = 2.0, SD = 0) and breaking down directions for optimal understanding (Mean = 2.0, SD = 0). The domains of lesson preparation (Mean = 1.86, SD = 0.35), teaching strategies (Mean = 1.89, SD = 0.31), and management strategies (Mean = 1.89, SD = 0.31) were also rated highly. Qualitatively, interventionists’ self-reported feedback was related to student engagement and comprehension, teaching strategies, and management strategies. These results suggest that it was feasible for the Second Step curriculum to be implemented with fidelity within this setting.

The effectiveness of the Second Step curriculum was examined using the Second Step knowledge assessment and the DESSA rating scale with qualitative responses providing additional context. On the Second Step assessment, 90% of students scored 70% or better with 60% of students scoring 93% or better. Results on the DESSA indicate trends toward improvement across all eight domains and the overall competence score. Teacher and clinician responses indicated that students’ social-emotional competence increased from an average of 40.27 in March (SD = 7.44) to 42.27 in May (SD = 7.27). Overall, staff provided general feedback, such as “our students seem to be very receptive to the Second Step program thus far” and “my students are responding very well to the Second Step curriculum.” There were three themes of effectiveness that were identified: generalizability, student knowledge, and staff
knowledge. These results suggest that there is promising evidence of effectiveness for students in the clinical day treatment program.

**The Devereux Student Strength System**

To examine the feasibility of implementing the DESSA system, the practicality and adaptability of this system were assessed. The practicality, or the ability to implement an intervention while using existing resources (Lyon et al., 2019), was examined and thematic analysis indicates that two practical challenges were identified during the first administration: *elevated rating scores* and *lack of clinician perspective*. After retraining raters after the first administration and adding a second rater, the clinician, to future ratings, these practical challenges were addressed during implementation.

When determining the adaptability, or if this intervention can be modified to meet the needs of this setting (Lyon et al., 2019), this study found two themes of variation between the original system and the implemented system. The two themes are *all students were administered the DESSA rating scale and data was not used for instructional purposes*. Not administering the screener (i.e., the DESSA-mini) was hypothesized to be a more cost and time efficient procedure since most students enrolled at CDT attend due to concerns with low social-emotional competence. Additionally, the DESSA system was not yet used for instructional purposes. Although collecting, analyzing, and using data to make instructional decisions is an essential cornerstone of school achievement, due to the simultaneous implementation of the Second Step curriculum, the DESSA analysis procedure was not adopted during this phase of implementation. During this initial implementation period it was important to take into account the emotional management needs of the interventionists as well as to establish universal supports before adding further layers of instruction and support. Overall, these results suggest that it is feasible,
specifically practical and adaptable, to implement the DESSA system within a clinical day
treatment program.

**Contextual Considerations: Implementation Science & Role of the Evaluator**

The results of this study suggest that it is feasible to implement the Second Step
curriculum and the Devereux Student Strengths Assessment system within a clinical day
treatment program. Importantly, recommendations from the field of implementation science were
used to promote the implementation of these interventions into routine practice. This includes the
stages of implementation framework (Fixsen et al., 2005) as well as the use of strategies that can
mediate successful implementation, including conducting ongoing training, making training
dynamic, providing ongoing consultation/coaching, monitoring the progress of the
implementation effort, and improving implementors buy-in (Cook et al., 2019; Lyon et al., 2019;
Powell et al., 2015). Additionally, the dual role of the evaluator of this study as researcher and
program coordinator/coach was an important factor in this study and influenced how the research
was conducted, its outcomes, and results. Prior to this study, the evaluator was fully integrated
into the setting and had insights into the culture of the setting, additional background context,
knowledge of the student population, and prior relationships with many of the participants. All of
this additional context aided considerably in the design of this programming and service delivery
in this specialized setting. The in-depth involvement of the evaluator was a strength of this study
that likely allowed for stronger outcomes. Although neither the role of the evaluator nor these
implementation strategies were specifically evaluated within the context of this study, it is highly
important to consider these results within the context of implementation science and the insider
perspective of the evaluator.
Limitations

The goal of this retrospective case study was to determine if it was feasible to implement the Second Step curriculum and the Devereux Student Strengths Assessment system within a clinical day treatment program. Although retrospective case studies are a helpful method for identifying feasibility challenges and preparing for further studies (Hess, 2004), they can be riddled with threats to internal and external validity which can limit the interpretation and the generalizability of the results. Internal validity describes the extent to which a specific treatment makes a difference in a particular instance (Campbell & Stanley, 1963). Simply put, internal validity describes the extent to which a cause-and-effect relationship can be explained by other factors. Internal validity has also been referred to as the basic minimum research standard, without which a study cannot be interpreted (Campbell & Stanley, 1963). Importantly, retrospective case study designs typically cannot determine cause-and-effect relationships but can be highly useful for providing preliminary data and in the development of further studies (Tofthagen, 2012), as well as providing meaningful data before scaling-up interventions in practical settings. External validity, or the generalizability of the findings, populations, settings, treatment variables, and measurement variables (Campbell & Stanley, 1963), is not the purpose of this study. Furthermore, in qualitative research, generalization is more complicated and more controversial, as “the goal of most qualitative studies is to provide a rich, contextualized understanding of human experience through the intensive study of particular cases” (Polit & Beck, 2010, p.1452). The specific threats to internal validity for this mixed-method study will be described hereafter.

Firstly, this study was an uncontrolled case study in which there was no control group and no random assignment. Classrooms were specifically selected due to the grade levels served
(3-6) and all of the students enrolled in those two classrooms received the intervention (i.e., Second Step, DESSA) as part of the day-to-day programming. The staff assigned to those classrooms implemented the intervention. Since all students in grades 3-6 received the intervention there was no possibility of random assignment to the control group or the intervention group. Without a control group present in this study, maturation threats, historical threats, selection threats, statistical regression, and instrumentation threats must be considered. It is possible that the typical growth or maturation of students and interventionists explains any changes in participants and without a control group maturation cannot be ruled out. Historical threats include events that occur at the same as the treatment and thus are alternative explanations for the changes in behavior. For this study specifically, students and interventionists experienced a variety of life circumstances throughout implementation. Additionally, threats of selection are relevant to this study as there are differences between individual students as well as control groups, which also provides alternative explanations for the study results. Regarding statistical regression, it is possible that chance factors, such as luck, were present in the first administration of the DESSA and that scores regressed to the mean on the next administration, rather than the change in scores being attributed to the retraining of staff.

This study is also susceptible to social interaction threats (Tofthagen, 2012) since adult participants may feel societal pressure to respond positively on both quantitative and qualitative measures. This may involve providing their feedback on the implementation process as well as with completing rating scales on the students’ presentation. This threat may be particularly relevant when the individual soliciting the feedback and reviewing the data is also leading the work. Although it is a strength of this study to incorporate the perceptions of the interventionists, social desirability bias may result in participants providing information that will be viewed
favorably by others. For example, once multiple participants responded positively to the intervention in the focus group, others could have been influenced to respond in a similar manner regardless of their true opinions and feelings; however, it is also possible that the reverse scenario could have occurred with participants responding negatively to the SEL programming. It is also possible that the interventionists responded more positively due to the Hawthorne effect of receiving more attention and feedback due to being observed. Future studies could control for the social desirability bias and the Hawthorne effect by providing a control group of participants with similar levels of feedback (Tofthagen, 2012).

Despite the limitations presented, this mixed-methods case study has utilized both quantitative and qualitative data sources to obtain a more complete perspective on the feasibility of implementing the Second Step curriculum and the DESSA system. Furthermore, the setting of this study is consistent with the typical conditions for this clinical day treatment program and has increased our knowledge of the feasibility of SEL programming as well as real-world implementation in alternative settings, which are essential components in determining how to best support highly vulnerable students.

**Implications for Practice & Research**

Social-emotional learning programming has been unequivocally shown to improve the social and emotional skills, behavior, and academic performance of students, as compared to students who did not receive programming (Durlak et al., 2011; Sklad et al., 2012; Taylor et al., 2017; Wigelsworth et al., 2016), with greatest gains shown with students who have lower skills to begin with (Low et al., 2015; Low et al., 2019). Results of this study suggest that SEL programming can be feasibly implemented within a clinical day treatment program with promising evidence of effectiveness, taking into account the current resources of prioritization,
personnel, and funding. Importantly, these results were obtained in the context of utilizing the stages of implementation framework (Fixsen et al., 2005) as well as strategies that can mediate successful implementation, including developing implementor buy-in, conducting ongoing training that is dynamic, providing ongoing consultation/coaching, and monitoring the progress of the implementation effort (Cook et al., 2019; Lyon et al., 2019; Powell et al., 2015). These results were also obtained within the context of the evaluator serving in the dual capacity of both researcher and program coordinator/coach. Although this study cannot be fully generalized the results suggest several implications and lessons learned for research and practice.

To scale-up social-emotional learning programming in this setting, multiple adjustments are recommended based on the results of this study. First, considering that interventionists expressed a great deal of enthusiasm and ownership over implementation, positive buy-in for this intervention likely impacted the fidelity of implementation as well as the promising evidence of effectiveness. To maintain buy-in, interventionists should continue to be engaged in discussions and activities that attempt to increase buy-in and motivation to adopt and use these practices, which is consistent with early research on strategies that can successfully mediate implementation by Cook and colleagues (2019). Interventionist feedback should also be sought before making major changes. Research suggests that changes to intervention procedures should have small tests of change that continue over time as an intervention is refined, (Cook et al., 2019) and this is a strategy that may support buy-in. To further enhance buy-in, the CDT leadership team should continue to develop champions of the work who are passionate, insightful, and can aid in overcoming resistance from other educators. Developing educator change agents may be particularly important for initiatives such as these that are originally driven by administrators and leadership teams rather than the educators themselves. These SEL
champions can also offer unique insights and provide support to their peers. Additionally, interventionists expressed that they found it meaningful to receive positive feedback from leadership about implementation, and as such it will be important to continue providing regular encouragement. Another component of supporting buy-in will be to provide staff with a layer of emotional support and understanding that developing SEL knowledge will be an acquired skill that takes time and practices will be applied unevenly at first. This is consistent with research (Cook et al., 2019) that suggests that improving the well-being of interventionists can reduce stress and burnout and aid with implementation efforts. Continued buy-in from interventionists will likely be essential to SEL programming being fully integrated into practice, which will maximize outcomes for students.

Results from this study suggest that the foundational practices related to SEL could be strengthened and refined. Social-emotional learning practices will be most effective when incorporated into a comprehensive system of multi-tiered supports. This overarching vision for social-emotional learning should be refined and then integrated into the clinical day treatment’s programming. It will be important to present staff with this clear vision of integration with the behavioral and academic systems before scaling-up social-emotional learning implementation. Research recommends that this implementation plan should include goals/outcomes, timeframe and milestones, appropriate progress monitoring measures, and also specific strategies that will be used for implementation (Cook et al., 2019). Interventionists would also likely benefit from a basic understanding of implementation science and the stages of implementation, which can provide structured information and accentuate the gradual timeline. Increased communication and greater transparency from the evaluator in these areas may be helpful to leadership team members and interventionists. The results of this study suggest that interventionists will likely be
overwhelmed, thus it will be important to provide more information but still a streamlined vision that includes the structure of supports that will be provided to interventionists. As recommended by interventionists, this training should begin before the beginning of the school year in order for implementation to begin early in the school year. It will be important to continue refining the SEL vision and associated programming over time, with the inclusion of the family and student perspectives.

Before scaling-up implementation, results from this study indicate that it would be beneficial to improve the assessment tools, paperwork, and data systems. The assessment tools that were utilized in this study, including the formative and summative assessments, weekly self-reflection, and observation forms, would benefit from additional refinement. In developing these tools, the evaluator had prioritized consistency with the Second Step resources and although key information about implementation was collected, results of this study suggest that these tools were a bit cumbersome at times and did not always capture all of the information that interventionists deemed important. Interventionists also reported that these paperwork components, including the lesson planning templates, were burdensome and not particularly useful. This finding is consistent with prior research findings that suggest paperwork is often troublesome to interventionists during initial implementation (Fixsen et al., 2005) and it has been recommended to remove burdensome documentation tasks that are not used to inform decisions and may make implementation easier (Cook et al., 2019). Likewise, the observation form that was used during implementation was highly useful but could have provided more nuanced feedback if a rubric with exemplars was utilized and as such it is recommended that this tool be updated. Importantly, these tools should be streamlined for efficiency but should continue to monitor the feasibility of the intervention, including the social validity, practicality, adaptability,
implementation, and effectiveness. Additionally, the data systems for these tools could be strengthened by developing a ‘dashboard’ that can be accessed by all CDT leadership and includes visuals of all of these data sources. Importantly, the SEL champions and the SEL leadership team should be utilized to refine these components.

These study results, as well as the research literature, indicate that ongoing professional development and regular coaching/feedback will be important to high-quality implementation in this setting. It is highly recommended that these components be frontloaded and included within the regular CDT professional development schedule. The schedule should utilize time during the professional development days prior to the start of school, weekly early release days, and the full-day professional development days embedded during the school year. During this first implementation cycle, staff were provided with class coverage for weekly planning time and feedback from SEL coaches as well as monthly professional development that included CDT specific dynamic trainings, as is recommended by research (Cook et al., 2019). As it would be impractical to provide all interventionists with class coverage when this programming is scaled-up, planning time and regular feedback opportunities must be included in the CDT professional development schedule. Research recommends organizing and providing implementation team meetings for those implementing new practices and giving them protected time to reflect, share lessons learned, and support one another’s learning (Cook et al., 2019). Professional development should also include a focus on the DESSA system, particularly the data analysis process, as staff have not received training on this procedure. Frontloading professional development prior to implementation that focuses on the core components of the intervention serves as a pre-correction that can support implementation (Cook et al., 2019). In order to prevent or reduce implementation overload, the frontloading of professional development may
require reducing other implementation efforts to enable school personnel to focus their energy, which is an implementation strategy supported by research (Cook et al., 2019). Research also suggests that peer-assisted learning can support implementation efforts, including pairing educators together to observe one another using the observation rubric and then providing an opportunity for debriefing (Cook et al., 2019).

In addition to these practical implications, this study has found that little research has examined how specific theories are represented in social-emotional learning programming, even though it is highly important that SEL programming be driven by theory. A deeper examination of theories of behavior, cognition, development, information processing, and emotion and how each of these theories can be applied to the content of social-emotional learning curriculums, how curriculums are presented, and how the content is implemented and sustained over time could lead to critical knowledge for the field. It is also highly important that researchers continue to analyze the content and instructional practices from leading SEL programs (e.g., Jones et al., 2021; Lawson et al., 2019; Wigelsworth et al., 2022), to determine what in particular makes social-emotional learning curriculums effective, including with content and pedagogy (Wigelsworth et al., 2022) and how student-teacher relationships may change. The integration of these components may aid in understanding how each theoretical orientation can maximize student outcomes and address critical concerns regarding educational equity and social-emotional learning programming.

This study underscores that students with social-emotional behavioral disabilities experience less school success than any other subgroup of students, with or without disability (Beaudoin et al., 2008; Wagner et al., 2005), yet much is lacking in the literature that supports program development in specialized sites such as these. Program design in these settings is
unique in that universal supports are being designed for a population of students who previously received individualized supports and were still unable to achieve success within the public school. Some alternative settings continue to provide this population with individualized supports immediately upon enrollment, however, a shift in philosophy to utilizing a multi-tiered system of support is essential to providing students a least restrictive environment. Another aspect of program design that should be evaluated for alternative contexts is the assessment tools. The tools developed for use within this study are an important first rendition, yet one that should be evaluated further, especially as the validation process of social-emotional learning assessments is continually refined. Additionally, contemporary implementation science has begun to focus on the identification of implementation strategies that can mediate successful implementation (Cook et al., 2019; Lyon et al., 2019; Powell et al., 2015) and progress in this research domain will be especially important for vulnerable population of students, including those with emotional behavioral disorders (EBDs), who may receive school services in nontraditional settings.

Moreover, this study found that there are few empirical studies that specifically examine the social-emotional learning outcomes of students with emotional behavioral disorders in alternative settings. If social-emotional learning programming is feasible to implement, as it was in this setting, it will be highly important to utilize quasi-experimental designs that focus on determining a cause-and-effect relationship between the selected programming and the social-emotional competence of students. Quasi-experimental designs will be useful in this context as these designs take into account that randomization is typically not possible in school settings. In addition to social-emotional competence (i.e., personal responsibility, optimistic thinking, goal-directed behavior, social awareness, decision making, relationship skills, self-awareness, self-
management), there are also other meaningful variables that may improve as a result of social-emotional learning programming. These outcomes include behavior, academic engagement, school climate, school attachment, and student-teacher relationships. Quasi-experimental studies should also investigate these associated outcomes. This study also emphasized the utility of qualitative data and mixed-method approaches to examine alternative settings. As such, it is recommended that qualitative sources of data are incorporated into empirical studies.

The results of this study could also be influential for educational policy. By first examining the feasibility of programming with a select group, changes were able to be made during the initial implementation period and before being implemented by all. From a policy perspective, it may be fundamental for alternative schools to utilize feasibility frameworks when designing social-emotional learning programming in order to inform decisions about scaling up implementation. Developing a detailed manual that provides alternative settings with a framework and step-by-step procedure is a significant next phase for this work. For this framework it would be important to consider the context of these findings, including the expertise and in-depth involvement of the evaluator as well as the focus on implementation science and strategies. An ideal model would include partnering alternative schools with consultants who have expertise in alternative settings, social-emotional learning, and implementation, perhaps through each state’s department of education. Each consultant would work closely with the alternative program to model and facilitate a similar implementation process to this study. Utilizing a train-the-trainer approach would allow for the consultant to be more embedded into the setting and to developing internal champions of the work. Implementing new social-emotional learning programming is a substantial investment and this long-term partnership will likely help support the investment and prioritization of program goals. The
importance of developing the social-emotional capacity of students cannot be overstated and state-wide resources and financial support would be well served in addressing this endeavor. It is also possible that this framework could generalize to public school districts and across content areas, although further work is required.

**Conclusion**

The results of this study suggest that it is feasible to implement the Second Step curriculum and the Devereux Student Strengths Assessment system within this clinical day treatment program. Importantly, recommendations from the field of implementation science were used to promote the implementation of these interventions into routine practice. This includes the use of the stages of implementation framework (Fixsen et al., 2005) as well as strategies that can mediate successful implementation, including conducting ongoing training, making training dynamic, providing ongoing consultation/coaching, monitoring the progress of the implementation effort, and improving implementors buy-in (Cook et al., 2019; Lyon et al., 2019; Powell et al., 2015). The in-depth involvement of the evaluator as researcher and program coordinator/coach influenced all components of this student, including programming decisions, service delivery, and results. Although there are limitations to this study, these results outline a feasible process for implementing universal social-emotional learning programming within one clinical day treatment program that serves students with emotional-behavioral needs.
APPENDIX A

Outcome Measure: Formative Assessment
Second Step Reflection: Mid-Implementation Assessment

1) From your perspective, how do you feel the pilot implementation of Second Step has gone? 10-point Likert Scale

2) What has been the most successful for you/your classroom with using Second Step? Open response

3) What has been a challenge for you/your classroom with Second Step? Open response

4) What could have been done to make the process of using this curriculum better? Open response

5) What suggestions do you have for next year as we continue to implement? Open response
APPENDIX B

Outcome Measure: Summative Assessment
Second Step Reflection on Implementation: Summative Assessment

Based on your very helpful feedback from the focus group, please answer these follow-up questions:

1) Name:

2) Your role at CDT:

3) Years you’ve been at CDT:

4) Years you’ve worked in “education” (this includes schools, clinical settings, daycare centers) in any job position:

5) From your perspective, how do you feel the pilot implementation of Second Step has gone? (10-point Likert Scale)

6) What has been the most successful for you/your classroom with using Second Step? Open response

7) What were the most essential factors that helped you/your classroom team be successful with Second Step (including lessons and following through activities). Please rank in order from most essential (1) to least helpful (7). You may not rate an item if you feel it wasn’t applicable to you. Please explain your ratings.

<table>
<thead>
<tr>
<th>Factors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday committee meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewing the curriculum/lesson plans on my own</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled planning time during the school day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Step modules,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekly classroom SEL meeting/preview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekly debrief/coaching sessions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESSA trainings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8) Teaching Efficacy. Please rate your confidence level: not at all confident, slightly confident, somewhat confident, quite confident, or extremely confident.

<table>
<thead>
<tr>
<th>Questions</th>
<th>not at all confident</th>
<th>slightly confident</th>
<th>somewhat confident</th>
<th>quite confident</th>
<th>extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>How confident are you that you can engage students in the Second Step curriculum?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How confident are you that you can explain the most complicated content to your students?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When one of your teaching strategies fails to work for a group of students (or when working with an individual student), how easily can you think of another approach to try?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How confident are you in your ability to implement Second Step next year? (In your same role)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How confident are you that you can help your school’s most challenging students to learn?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9) SEL Foundational Practices at CDT. *Please indicate if you strongly disagree, disagree, agree, or strongly agree.*

<table>
<thead>
<tr>
<th>Questions</th>
<th>strongly disagree</th>
<th>disagree</th>
<th>agree</th>
<th>strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I regularly have opportunities to provide feedback or input to my school’s SEL team to help move our work forward.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My school provides opportunities for me and others in our school community to learn more about SEL at least once a year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe that social and emotional competence is related to students’ academic success.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am committed to promoting social and emotional competence in my students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understand my role in promoting schoolwide SEL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My school has developed a vision for schoolwide SEL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was involved in developing my school’s vision for schoolwide SEL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My school collected information about our current SEL practices, policies, resources, and needs within the last year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My school has a shared strategic plan for schoolwide SEL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I know how my school is measuring success when it comes to implementing schoolwide SEL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have the resources I need (training, materials) to implement SEL at my school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have sufficient planning time to prepare to effectively implement the SEL approach adopted by my school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am able to find the time needed to provide explicit SEL instruction to my students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I attend professional learning opportunities to cultivate my own social and emotional competence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel encouraged to reflect on and continuously improve my own social and emotional competence.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data are collected regularly on students’ social and emotional skills to identify schoolwide trends, strengths, and needs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Second Step Reflection on Implementation: Summative Assessment (page 3)

10) If needed, please ask any questions, or clarify your above responses. *Open response*

11) What has been a challenge for you/your classroom with Second Step? *Open response*

12) What could have been done to make the process of using the Second Step curriculum better? *Open response*

13) What suggestions do you have for next year as we continue to implement? *Open response*
APPENDIX C

Outcome Measure: Focus Group
Focus-Group Semi-Structured Script

Introductory Statement
Hello! For this portion of our meeting today we are going to have a discussion about Second Step and how the SEL pilot has gone so far. The core purposes of our discussion are to get information about your perspective on what you think has worked and what hasn’t worked.

There are no right or wrong answers to the questions I am going to ask you. I encourage all of you to share your point of view even if it differs from what others have said. You should also feel comfortable to follow up on something that someone has said whether you want to agree or disagree or give an example. You also can feel free to talk to each other about these questions.

I am here to ask questions, listen, and make sure that everyone has a chance to share.

If someone is talking a lot, then I may ask you to give others a chance. If you aren’t saying much, then I may call on you. We want to make sure to be able to hear from all of you since you all have a unique perspective.

As we talked about in the beginning, we are recording this session so that we don’t miss any of your comments. Also, it is possible that this may feel a bit awkward but again the purpose is to identify what worked and what didn’t, and we really appreciate you being ones who are going to help it improve in the future.

Let’s go ahead and rearrange a little so that it is easier for everyone to share. Let’s see if we can have everyone sit in front of the camera. You can also feel free to sign in on another computer if that works better for you.

Notes to Self: Remember to pause and probe.

Pause: Give at least 5 seconds of wait time.

Probe: Probing questions: Would you explain further? Would you give me an example of what you mean? Would you say more? Is there anything else? I don’t understand. Can you talk more about that? What do you mean by that? What makes you feel that way? Can you think of an example of that?

Focus Group Questions
The questioning route should have an easy beginning, flows logically and naturally from one question to another, and moves from the general to the specific. Consider including estimates for pacing.

Opening Questions
Opening questions are used to get people talking and feeling comfortable. They should be easy to answer but should not emphasize differences among group members.

• Tell us your name and say the first thing that comes to mind when you hear social emotional learning (5)

Introductory Questions
Introductory questions are used to get the group to start thinking about the topic at hand. They help focus the conversation.

• Think back since the beginning of the pilot. Which unit have you preferred (empathy) or unit 2 (emotion management)? And why. (5)
• Think about over the last several months and share your fondest memory (the most enjoyable memory) that had to do with Second Step and a student? (10)

Transition Questions
Transition questions provide a link between introductory questions and the key questions. They typically ask participants to go into more depth than introductory questions.

• Think back to when you first became involved in the program. What were your first impressions? What did you think about Second Step?

Key Questions
Key questions focus on the major areas of concern. The majority of the time is devoted to discussions of these questions.

• Think back over the past several months, what went particularly well?
• What needs improvement?
• If you were introducing Second Step and SEL, what would you say?
• What can each one of us do to make the program better?
• What is absolutely essential for you to need in order to implement Second Step?

Ending Questions
Ending questions bring the session to closure.

• Is there anything we should have talked about today, but didn’t?

Remember: Take people back to an experience and not forward to the future.
APPENDIX D

*Outcome Measure: Weekly Self-Reflection*
Clinician & Teacher Second Step Reflection: Weekly

**Directions:** Please reflect as a dyad and complete this weekly check-in on your Second Step implementation.

Select the most recent lesson taught:

- Each lesson contains a warm-up, a story with discussion, an activity, and a wrap-up. Approximately what percentage of the lesson sections did you complete during your most recent lesson?
  - 25%
  - 50%
  - 75%
  - 100%

- On average, how often was the classroom teacher in the room and engaged with the lesson?
  - Never
  - Occasionally
  - Often
  - Always

- On average, how often was the clinician in the room and engaged with the lesson?
  - Never
  - Occasionally
  - Often
  - Always

- People sometimes change lessons by leaving out or changing parts of the lesson. To what extent did you...
  - ... leave out or skip parts of the lesson?
    - Never
    - Occasionally
    - Often
    - Always

- People sometimes change lessons by leaving out or changing parts of the lesson. To what extent did you...
  - ... change the lesson significantly from the way it was written?
    - Never
    - Occasionally
    - Often
    - Always

- People sometimes change lessons by leaving out or changing parts of the lesson. To what extent did you...
  - ... add new material to the lesson?
    - Never
    - Occasionally
    - Often
    - Always

**Lesson Successes:**

**Lesson Challenges:**

**Improvement Plan:** What should we change for next time? What resources and supports do we need?

**What tips do we have for other classroom teams who will implement this lesson? What do we want to remember for next time?**

**Following-Through Activities**

- There are typically 4 daily practice activities every week. Approximately what percentage of the daily practice activities did you complete last week?
  - 25%
  - 50%
  - 75%
  - 100%

- It can be necessary to differentiate the daily practice activities. To what extent did you differentiate? (i.e., change the activity significantly from the way it was written, add new material, etc.)
  - Never
  - Occasionally
  - Often
  - Always

**Daily Practice Successes:**

**Daily Practice Challenges:**

**What tips do you have for other classroom teams who will implement these daily practice activities?**
APPENDIX E

*Outcome Measure: Observation Form*
## Second Step Lesson Observation Form

### Descriptive Information

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time Start:</th>
<th>Time End:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observer:</td>
<td>Classroom:</td>
<td>Staff Present:</td>
</tr>
<tr>
<td># Students and Student Initials:</td>
<td>Lesson Number:</td>
<td>Lesson Name:</td>
</tr>
</tbody>
</table>

### Before the Observation: Checklist for the Observer

<table>
<thead>
<tr>
<th>Items</th>
<th>Completed</th>
<th>During the Observation</th>
<th>Praise (Tally)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preview the Second Step lesson materials</td>
<td>yes no</td>
<td>Behavior-Specific</td>
<td>General Praise</td>
</tr>
<tr>
<td>Review the teacher/clinician lesson plan</td>
<td>yes no</td>
<td></td>
<td>Dojo Points Only</td>
</tr>
<tr>
<td>Have printed copy of lesson script and materials</td>
<td>yes no</td>
<td></td>
<td>Corrections (Tally)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Corrective Feedback</td>
</tr>
</tbody>
</table>

### During the Observation

*Use this section to note any areas that may be important to discuss with the classroom team. Consider keeping track of pacing, lesson fidelity, collaboration across the team, student and staff responses, and staff engagement.*

#### Review

**Introduction**

(5 minutes)

#### Story and Discussion

(10-15 minutes)

#### Activity

(10-15 minutes)

#### Wrap-Up

(5 minutes)
### During the Observation

<table>
<thead>
<tr>
<th>Category</th>
<th>Effective Teaching Exemplars</th>
<th>Rating</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>Has materials ready beforehand</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seeks familiar with lesson activities</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td>Lesson Fidelity</td>
<td>Teaches all lesson parts completely and sequentially</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Follows the script or covers the same ideas in own words</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td>Student Engagement Strategies</td>
<td>Tailors examples/scenarios to students’ context</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relates concepts to students’ experiences</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Checks for comprehension</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td>Teaching Strategies</td>
<td>Uses think-time</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uses nonjudgmental responses</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Models skills</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uses an attention signal</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partners students quickly and effectively</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td>Management Strategies</td>
<td>Follows pacing guidelines described in the Teaching Guide</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uses low-key responses to deal with off-task behavior</td>
<td>2 1 0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breaks down directions for optimal understanding</td>
<td>2 1 0</td>
<td></td>
</tr>
</tbody>
</table>

### End of Observation

#### Direct Behavior Ratings (DBR)

<table>
<thead>
<tr>
<th>Area</th>
<th>Value</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active Supervision: Staff are Moving, Scanning, and Interacting</strong></td>
<td></td>
<td><img src="scale.png" alt="" /></td>
</tr>
<tr>
<td>0% 10 20 30 40 50% 60 70 80 90 100%</td>
<td></td>
<td><img src="scale.png" alt="" /></td>
</tr>
<tr>
<td><strong>Academic Engagement: Students are actively or passively participating in the classroom activity</strong></td>
<td></td>
<td><img src="scale.png" alt="" /></td>
</tr>
<tr>
<td>0% 10 20 30 40 50% 60 70 80 90 100%</td>
<td></td>
<td><img src="scale.png" alt="" /></td>
</tr>
<tr>
<td><strong>Disruptive Behavior: Student behavior that interrupts regular school or classroom activity</strong></td>
<td></td>
<td><img src="scale.png" alt="" /></td>
</tr>
<tr>
<td>0% 10 20 30 40 50% 60 70 80 90 100%</td>
<td></td>
<td><img src="scale.png" alt="" /></td>
</tr>
</tbody>
</table>

### After Observation: Reflection

After completing this observation form, identify 2-3 key areas of strength and 2-3 ideas to consider for next time.
Discuss this feedback with the teacher/clinician during SEL Team Time. Determine when/who can provide the classroom team with feedback at another time.

- [ ] Areas of Strength
- [ ] Suggestions for Next Time

Rev. 1/8/21
APPENDIX F

Outcome Measure: Second Step Knowledge Assessment
Second Step Summative Knowledge Assessment: Grade 4

Unit 1: Learning and Empathy
1. When you have empathy for people, you (select all that apply):
   (a) Notice how they are feeling
   (b) Listen with attention to what they are saying
   (c) Tell them how they should feel
   (d) Try to understand their point of view
   Answer: a, b, d (multiple response)

2. Select the best example of being assertive when someone cuts in front of you in line:
   (a) Hey, get out of the way!
   (b) Oh... I don’t know, but I think I was in front of you, maybe.
   (c) Who do you think you are – the king of the world?
   (d) It is not okay to cut in front of me. The end of the line is back there.
   Answer: d (multiple choice)

3. There is a new boy in your class. You’ve decided to start a conversation with him so you can get to know him better. What are some things you can do to keep a conversation going? (Select all that apply).
   (a) Listen to him with attention when he is talking
   (b) Face him when you are talking when him
   (c) Use friendly, respectful, sincere words and tone of voice
   (d) Ask more questions to keep the conversation going
   Answer: a, b, c, d (multiple responses)

4. Jill was very excited that her older sister was coming home for a visit. Then she found out that her sister had a change of plans and couldn’t make it home. Jill is very disappointed. What is a compassionate thing you could do for Jill?
   (a) Ignore her and hope she will feel better soon
   (b) Tell her you are sorry her sister is not coming for a visit and invite her over to your house to watch a movie instead
   (c) Look at her very sadly
   (d) Wish that she felt better
   Answer: b (multiple choice)

Unit 2: Emotion Management
5. You experience strong emotions only in your brain.
   (a) True
   (b) False
   Answer: b. false; you experience strong emotions in your brain and body (true/false)

6. Select the first two things you should do to begin to calm down:
   (a) Stop-use your signal
   (b) Run
   (c) Name your feeling
   (d) Lie down
   Answer: a, c (multiple response)

7. You are playing a game at recess. You notice that someone on the other team is cheating. You are so angry! What can you do to calm down?
   (a) Call the kid a cheater, and make sure everyone hears you
   (b) Breathe
   (c) Count to 10
   (d) Tell yourself “Chill. Maybe he doesn’t know the rules.”
   Answer: b, c, d (multiple responses)

8. Anxiety is the uneasy feeling you get when you are worried about something that might or might not happen. When you feel anxious it is good to (select all that apply):
   (a) Yell
   (b) Clench your teeth
   (c) Use self-talk to tell yourself that it will be okay
   (d) Talk to a grown-up
   Answer: c, d (multiple responses)
APPENDIX G

Outcome Measure: Devereux Student Strength Assessment
**Devereux Student Strength Assessment (DESSA) Rating Scale**

During the past 4 weeks, how often did the student engage in the skill listed. Based on your assessment, put an X in the appropriate column under never, rarely, occasionally, frequently, or very frequently.

<table>
<thead>
<tr>
<th>Item #</th>
<th>Item</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Very Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>remember important information?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>carry herself/himself with confidence?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>keep trying when unsuccessful?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>handle his/her belongings with care?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>say good things about herself/himself?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>serve an important role at home or school?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>speak about positive things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>cope well with insults and mean comments?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>take steps to achieve goals?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>look forward to classes or activities at school?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>get along with different types of people?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>try to do his/her best?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>seek out additional knowledge or information?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>take an active role in learning?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>do things independently?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>say good things about his/her classmates?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>act respectfully in a game or competition?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>ask to take on additional work or responsibilities?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>respect another person’s opinion?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>encourage positive behavior in others?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>prepare for school, activities, or upcoming events?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>contribute to group efforts?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>do routine tasks or chores without being reminded?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### DESSA Rating Scale (continued – page 2)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Item</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Very Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>act as a leader in a peer group?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>resolve a disagreement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>show creativity in completing a task?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>share with others?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>get things done in a timely fashion?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>seek out challenging tasks?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>say good things about the future?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>cooperate with peers or siblings?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>show care when doing a project or schoolwork?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>work hard on projects?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>forgive someone who hurt or upset him/her?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>follow rules?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>express high expectations for himself/herself?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>follow the example of a positive role model?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>compliment or congratulate someone?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>accept responsibility for what she/he did?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>do something nice for someone?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>make accurate statements about events in her/his life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>show good judgement?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>pay attention?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>wait for her/his turn?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>show appreciation of others?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>focus on a task despite a problem or distraction?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>greet a person in a polite way?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>act comfortable in a new situation?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>teach another person to do something?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### DESSA Rating Scale (continued – page 3)

<table>
<thead>
<tr>
<th>Item #</th>
<th>Item</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Very Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>attract positive attention from peers?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>perform the steps of a task in order?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>seek advice?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>think before she/he acted?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>pass up something he/she wanted, or do something he/she did not like, to get something better in future?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>express concern for another person?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>accept another choice when her/his first choice was unavailable?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>ask questions to clarify what she/he did not understand?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>show an awareness of her/his potential?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>ask someone for feedback?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>stay calm when faced with a challenge?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>attract positive attention from adults?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>describe how he/she was feeling?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>give an opinion when asked?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>make a suggestion or request in a polite way?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>learn from experience?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>follow the advice of a trusted adult?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>adjust well to changes in plans?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>show the ability to decide between right and wrong?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>use available resources (people or objects) to solve a problem?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>offer to help someone?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>respond to another person’s feelings?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>adjust well when going from one housing situation to another?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX H

Intervention Materials
<table>
<thead>
<tr>
<th>Lesson</th>
<th>Concepts</th>
<th>Objectives – Students will be able to…</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Empathy and Respect</td>
<td>-The <em>Second Step</em> program helps you succeed at school. -Having respect and empathy helps you get along with others.</td>
<td>-Define respect -Define empathy</td>
</tr>
<tr>
<td>2. Listening with Attention</td>
<td>-Listening with attention helps you learn, work with others, and make friends.</td>
<td>-Demonstrate listening-with-attention skills.</td>
</tr>
<tr>
<td>3. Being Assertive</td>
<td>-Being assertive means asking for what you want or need in a calm, firm, respectful voice. -Being assertive helps you be a successful in a variety of social and academic situations.</td>
<td>-Identify passive, aggressive, and assertive responses -Demonstrate assertive responses with their partners</td>
</tr>
<tr>
<td>4. Respecting Similarities and Differences</td>
<td>-People can have similar or different feelings about the same situation. -Being able to notice and then understand others’ feelings is an important part of empathy.</td>
<td>-Identify clues that help them recognize other people’s feelings -Identify similarities and differences between how two people feel</td>
</tr>
<tr>
<td>5. Understanding Complex Feelings</td>
<td>-It is possible to have more than one feeling at the same time. -Being able to understand that others might have complex feelings is an important part of empathy.</td>
<td>-Identify multiple feelings in a given scenario -Give possible reasons for multiple feelings</td>
</tr>
<tr>
<td>6. Understanding Different Perspectives</td>
<td>-People can have different perspectives about other people, places, and situations. -Perspective taking is a central component of empathy.</td>
<td>-Identify differing perspectives in given scenarios -Generate prosocial responses to scenarios in which different perspectives could cause a conflict</td>
</tr>
<tr>
<td>7. Conversation and Compliments</td>
<td>-Having successful conversations with peers helps you make and build friendships. -Giving a sincere, thoughtful compliment is a good way to start a conversation or keep one going.</td>
<td>-Identify components of a successful conversation -Demonstrate giving and receiving a compliment</td>
</tr>
<tr>
<td>8. Joining In</td>
<td>-Being assertive can help you join and invite others to join a group.</td>
<td>-Identify skills for joining a group -Demonstrate skills for joining a group</td>
</tr>
<tr>
<td>9. Showing Compassion</td>
<td>-Compassion means saying kind words or doing something helpful to show you care about how another person feels. -Having empathy helps you show compassion.</td>
<td>-Demonstrate expressing concern or showing compassion for someone</td>
</tr>
<tr>
<td>Lesson</td>
<td>Concepts</td>
<td>Objectives – Students will be able to…</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>10. Introducing Emotion Management</td>
<td>-When you feel strong feelings, it’s hard to think clearly.</td>
<td>-Describe what triggers their own strong emotions</td>
</tr>
<tr>
<td></td>
<td>-Unmanaged, strong emotions can lead to negative behavior and consequences.</td>
<td>-Describe what happens in their brains and bodies when they experience strong emotions</td>
</tr>
<tr>
<td>11. Managing Strong Feelings</td>
<td>-Staying in control of your emotions and actions helps you get along better with others and be successful at school.</td>
<td>-Demonstrate the ability to interrupt escalating emotions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Determine a person “signal”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Identify and name strong feelings as they occur</td>
</tr>
<tr>
<td>12. Calming Down Anger</td>
<td>-Calming down emotions that are getting out of control helps you think clearly so you can avoid negative consequences.</td>
<td>-Identify situations in which they might need to calm down</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Demonstrate the technique for deep, centered breathing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Identify and demonstrate other calming-down strategies (counting, using positive self-talk)</td>
</tr>
<tr>
<td>13. Managing Anxiety</td>
<td>-Effectively managing your anxiety makes it easier to focus and succeed in social and academic situations.</td>
<td>-Identify situations that cause anxiety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Apply what they’ve learned about calming down to anxiety-provoking scenarios, including academic challenges</td>
</tr>
<tr>
<td>14. Avoiding Jumping to Conclusions</td>
<td>-Calming down strong emotions helps you think clearly about a situation so you can avoid jumping to conclusions.</td>
<td>-Identify emotion-management strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Demonstrate assertiveness skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Identify and demonstrate positive self-talk statements</td>
</tr>
<tr>
<td>15. Handling Put-Downs</td>
<td>-Calming down helps you handle put-downs and avoid making conflicts escalate.</td>
<td>-Identify strategies for handling put-downs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Demonstrate what they’ve learned about strategies for calming down</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Demonstrate assertive responses to put-downs</td>
</tr>
</tbody>
</table>
Second Step Teaching Practices

Quick Guide: Second Step Teaching Strategies

Think, Turn, Tell

- Think, Turn, Tell promotes active participation of each student in the classroom. It's also a Brain Builder activity because it involves listening, attention, and inhibitory control.
- During Think, Turn, Tell, each student exchanges ideas with a partner. Then the teacher calls on a few students at random to tell the class their ideas. Students can be partnered before the lesson or immediately before the activity.

Think-Time

- After asking a question, wait at least 5 seconds before calling on anyone. This will enhance participation by giving more students enough time to formulate their answers. You may need to remind students not to raise their hands until think-time is over.

Choral Response

- Choral response is asking students to respond to a question in unison. Choral responses are best used for questions that require only a very short response and have only one correct answer. Use a consistent signal to cue students when a choral response is expected, such as lifting your hand in front of you, palm side up.
- Give feedback about the response given by the majority of the students. For example, say: When we're happy, our bodies are ___ __. The majority of your students respond, "comfortable." Provide immediate feedback: That's right! Our bodies are comfortable when we're happy.

Calling on Students at Random

- During class discussions, calling on students at random (after giving adequate think-time) is an evidence-based strategy that helps ensure whole-class participation. Here are some methods of randomization that can help you keep track of who has or hasn't been called on:
  - Cards: Write each student's name on a uniform-sized index or playing card. Shuffle the cards. Select the card on the top of the pile and call on the student whose name is on it to answer the question.
  - Popsicle sticks: Write each student's name on a separate stick. Keep the sticks in a cup or jar. Select one stick from the cup and call on that student to answer the question.
  - Names in a hat: Write each student's name on a separate piece of paper, put the papers in a hat or bowl. Select a name from the hat and call on that student to answer the question.
  - Class list: Check off names as you call on students.
- Allow students to "pass" if they don't have a response. Don't draw attention to a student who doesn't have a response. Move on quickly to another student.

Whole-Class Discussion

- When the entire class is participating in a teacher-led discussion, students may get stuck on a particular category of ideas. When this happens, encourage students to think of other ideas. Use the suggested answers from the lesson script.
- If students suggest inappropriate responses, ask: is that safe? Is that respectful? to steer them back toward appropriate responses. Try to remain nonjudgmental. Even though you may want to point students to a desired conclusion, you don't want to shut down the openness of the discussion. Asking questions that lead to a logical and desired outcome is optimal.

Nonjudgmental Responses

- Saying "That's one idea-what's another?" in response to student answers will encourage more participation than "That's a good idea! Does anyone else have one?" The latter response discourages participation by students who may fear that their suggestions aren't as good.

Physical Movement

- Physical movements are incorporated throughout the program as a way to engage students' kinesthetic intelligence, increase participation, address diverse learning styles, help students refocus, and simply to make learning fun. Allow students to move around in a controlled manner (such as standing, stretching, and turning) during transitions and when you notice their attention waning.

Modeling

- Modeling is one of the most effective strategies you can use to help students master skills. Lesson cards contain descriptions of how you can model the words, gestures, expressions, and ideas that will convey the lesson objectives best.
- Modeling is also critical to reinforcing Second Step skills outside the lessons. Teachers show students that all people, including adults, use and practice social skills. You can find more suggestions for modeling in the Using Skills Every Day section on the Following Through Cards.
References


Barnes, S., & Jones, S. (2019). An antidote to the “fever” of social and emotional learning:
Build from science and evidence and ask the right questions. Education Next. https://www.educationnext.org/antidote-to-fever-social-and-emotional-learning-build-from-science-evidence-ask-right-questions/


Blewitt, C., O’Connor, A., Morris, H., Mousa, A., Bergmeier, H., Nolan, A., Jackson, K.,


Buss, K. A., Cole, P. M., & Zhou, A. M. (2019). Theories of emotional development: Where have we been and where are we now? In V. LoBue, K. Perez-Edgar, & K. A. Buss (Eds.), Handbook of emotional development, (pp. 7-25). Springer. https://doi.org/10.1007/978-3-030-17332-6_2


Committee for Children. (2021a). *The case for a holistic approach to social-emotional learning.*


Dodge, K. A., Lansford, J. E., Burks, V. S., Bates, J. E., Pettit, G. S., Fontaine, R., & Price, J. M.


Duardo DeNobile, S. A. (2009). *An analysis of public alternative education schools and programs in the state of New Jersey: A comparison to national data*. (Publication 179) [Doctoral dissertation, Seton Hall University]. Seton Hall University eRepository @ Seton Hall.


Duong, M, Kilgus, S., Maas, T., von der Embse, N., & Widen, S. C. (n.d.). *Selecting assessments*


Finn, C.E. Jr., & Hess, F. (2019, April 10). What social and emotional learning needs to succeed and survive: Seven suggestions for SEL advocates and funders as they seek to deliver on its promise and avoid its pitfalls. *Education Next*. https://www.educationnext.org/what-social-emotional-learning-needs-succeed-survive/


https://doi.org/10.1177/1049731509335549

https://nirn.fpg.unc.edu/resources/implementation-research-synthesis-literature


208


alternative school for students with emotional disturbance (ED). *Qualitative Research in Education, 3*(3), 295-319. https://doi.org/10.4471/qre.2014.49


Individuals with Disabilities Education Improvement Act (IDEiA) of 2004, PL108-446, 20 U.S.C. 1400 et seq.


interventions to build social skills: Do they work?. *School Psychology Review, 40*(2), 242-256.


Jones, S. M., & Barnes, S. P. (2018). What’s missing in SEL measurement and assessment?


profiles of students with emotional and behavioral disorders educated in self-contained classrooms and self-contained schools: Part I—are they more alike than different? Behavioral Disorders, 349–361.


216


Lindsay, M. (2013). *Integrating social emotional learning into secondary curriculum*. [Masters Project, Dominican University of California].


systemic social and emotional learning with a schoolwide implementation model. 
https://doi.org/10.1016/j.evalprogplan.2018.11.005

https://doi.org/10.5897/AJBM09.082

https://doi.org/10.1177/0198742918816518


Wooten, K. C., Rose, R. M., Ostir, G. V., Calhoun, W. J., Ameredes, B. T., & Brasier, A. R.


