2023

Social emotional learning and its needs and benefits for students with down syndrome, autism spectrum disorder, and emotional behavioral disorder

Mariah Kay Uphoff
Bethel University

SOCIAL EMOTIONAL LEARNING AND ITS NEEDS AND BENEFITS FOR STUDENTS WITH DOWN SYNDROME, AUTISM SPECTRUM DISORDER, AND EMOTIONAL BEHAVIORAL DISORDER

BY

MARIAH KAY UPHOFF

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS IN SPECIAL EDUCATION

JUNE 2023

BETHEL UNIVERSITY

SOCIAL EMOTIONAL LEARNING AND ITS NEEDS AND BENEFITS FOR STUDENTS WITH DOWN SYNDROME, AUTISM SPECTRUM DISORDER, AND EMOTIONAL BEHAVIORAL DISORDER

Mariah Kay Uphoff

June 2023

APPROVED

Thesis Advisor: Nathan Elliott, M.A.

Program Director: Katie Bonawitz, Ed.D.

Acknowledgements

I want to thank my parents and sisters for sitting through all of the long phone calls filled with processing, their patience towards my unavailability throughout my schooling, and the encouragement they gave me to take a leap of faith and pursue my degree in Special Education. I also want to thank my co-workers for their support when the stress of the first years of teaching mixed with the hard work needed to get my licensure and Master's. They found ways to make me laugh each day and reminded me of my value to the school and my ability to accomplish hard things. Most of all I want to thank Mitch- the love of my life, who pulled extra time, effort, and work to ensure that there was a meal on the table each night, that the new house was ready to roll, and that I didn't lose my ever-loving mind. Thank you, Mitch, for reminding me each day that you had my back even when I was grumpy, overwhelmed, and discouraged. You are my rock and I could not have done any of this without you.

Abstract

Social Emotional Learning (SEL), the lifetime process of developing skills that enable healthy relationships with others and with the self, has continued to grow in importance as educational programs emphasize more and more the value in educating the student as a whole. Research shows the need and benefits of incorporating an SEL curriculum into the lives of students, especially those with disabilities such as Down Syndrome, Autism Spectrum Disorder (ASD), and Emotional Behavioral Disorder (EBD). Without the skills that come from proper SEL training, students with disabilities tend to struggle in everyday life in areas such as mental health, social appropriateness, and verbal interactions. Research explored throughout this thesis also concludes that successful SEL programs for students with disabilities involve a high period of exposure to the curriculum, hands-on student involvement in learning, full body awareness teaching, and emphasis on learning one's emotional profile. This thesis deeply looks at the research in place regarding needs for SEL amongst students with disabilities and the benefits of different SEL programs and curriculums in order to give greater understanding of the topic and point to future growth and research.

Table of Contents

Signature Page 2
Acknowledgements 3
Abstract 4
Table of Contents 5
Chapter I: Introduction 6
Defining Social Emotional Learning 6
Defining Specific Disability Categories 7
Down Syndrome 7
Autism Spectrum Disorder 8
Emotional Behavioral Disorder 9
History of Social Emotional Learning 10
History of Special Education 12
Thesis Questions 14
Chapter II: Literature Review 15
Literature Search Procedures 15
The Need for SEL Curriculum for Students with Disabilities 16
Down Syndrome 17
Autism 21
Emotional Behavioral Disorder 27
Effects of SEL Curriculum on students with disabilities 32
Down Syndrome 32
Autism 36
Emotional Behavioral Disorder 41
Chapter III: Discussion and Conclusion 49

Summary of Literature....49
Limitations of the Research....53
Implications for Future Research....54
Professional Application....54
Conclusion....56
References....57

CHAPTER 1: INTRODUCTION

Defining Social Emotional Learning

Social emotional learning (SEL) is the educational practice of teaching students the skills that will help them develop into an engaged societal member who has the tools to create meaningful relationships, cooperate with others, and overcome daily challenges. SEL can be divided up into five domains, an idea proposed by the Collaborative for Academics, Social, and Emotional Learning (CASEL). These five domains include self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Greenberg et al., 2017).

The first domain of self awareness is the understanding of one's own strengths, emotions, and position in the world (Greenberg et al., 2017). When a person demonstrates a high level of self-awareness, they are more likely to recognize their own triggers, place in relationship with others, and how daily choices affect future goals and opportunities. Contrastingly, a person who demonstrates low levels of self-awareness typically struggles in listening and acknowledging their place within the viewpoints of others and the impact they have.

Social awareness, the second domain, is the ability to take on the perspectives of others while also acknowledging and adapting to the norms of differing social and relational situations (Greenberg et al., 2017). When someone incorporates high social awareness into their life, there is a greater ability to demonstrate empathy towards other beliefs, cultures, and views.

The third domain is called self-management. Self-management involves the skills needed to regulate emotions, behaviors, and thoughts and redirect oneself into a state of calmness (Greenberg et al., 2017). Self-management requires one to take responsibility for their actions and interactions through the use of flexibility, control of stress, and perseverance towards goals.

The fourth domain of SEL is relationship skills which encapsulates having the tools needed to keep healthy relationships (Greenberg et al., 2017). Someone who is successful in their relationship skills is able to cooperate well with others, listen attentively, work through conflict and disagreements, and clearly communicate their thoughts and feelings (Greenberg et al., 2017). Typically, someone with high relationship skills has the ability to identify and convey to others when they need help or guidance.

The final domain, responsible decision-making, includes the ability to make wise big and small life decisions and choices (Greenberg et al., 2017). A true demonstration of competence in the area of responsible decision-making is when one is able to identify and adapt to ethical standards, safety expectations, and evaluate possible outcomes or consequences (Greenberg et al., 2017).

Defining Specific Disability Categories

The three disabilities that are focused on within this thesis include Down Syndrome, Autism Spectrum Disorder, and Emotional Behavioral Disorder. In order to comprehend each disability before proceeding with the research, the disabilities are defined below.

Down Syndrome

Typically, the human body has 23 pairs of chromosomes within the nucleus of each cell in the body. Down Syndrome occurs when a person has a full or partial copy of the chromosome 21 (National Down Syndrome Society, 2018). This extra partial copy of chromosome 21 typically occurs, 95% of the time, due to a difference in cell division called nondisjunction (National Down Syndrome Society, 2018). Nondisjunction happens when, prior to or at conception, the 21st chromosome in either the sperm or the egg fails to separate (National Down

Syndrome Society, 2018). This then leads to an extra chromosome being copied and replicated within every cell of the body.

Common physical characteristics of Down syndrome include small stature, upward slanting eyes, low muscle tone, and a singular deep crease across the center of the palm of the hand (National Down Syndrome Society, 2018). With that being said, these characteristics do not define all individuals with Down syndrome. The physical characteristics differ in intensity of presence and some individuals with Down syndrome don't have some of the characteristics at all, emphasizing the uniqueness of each person within this disability category.

All people with Down syndrome have cognitive delays, but the effect of the delay varies from one individual to another (National Down Syndrome Society, 2018). Most people with Down syndrome experience a mild to moderate delay. The overall cognitive levels range from severe to mild.

Individuals with Down syndrome are becoming increasingly integrated within everyday society, especially in the areas of schooling, health care, the work force, and social and recreational activities (National Down Syndrome Society, 2018). As society continues to advance and grow and lean more towards inclusive environments, it emphasizes even more the great importance of ensuring that people with Down syndrome are given proper training and teaching in the area of social emotional skills.

Autism Spectrum Disorder

The term autism spectrum disorder (ASD) refers to the broad scope of conditions such as challenges with social interactions, repetitive conducts and doings, and communication both verbal and nonverbal (Autism Speaks, 2023). ASD is an umbrella term that includes autism, Asperger's Disorder, and Pervasive Developmental Disorder- Not Otherwise Specified (Autism

Society, 2023). Many factors may guide the development of autism, the main one being genetic factors and differences in brain structure and/or brain function (Autism Speaks, 2023). In reality, there is currently no single cause of autism but a number of theories point to inherited genetics and medical problems (Autism Society, 2023).

Typical signs of autism appear by the age of two or three, but can also be identified at the earliest of 18 months (Autism Speaks, 2023). There are cases in which autism is diagnosed at a later age once the demands of society lead to manifestation of specific characteristics. The DSM-5 is used to diagnose autism and its features (Autism Speaks, 2023).

Common characteristics of autism include sensory sensitivities, sleep disorders, gastrointestinal disorders, echolalia, reliance on routine, restrictive behaviors, difficulty in self-regulation, and communication. It is important to note that these characteristics and intensities differ from each person diagnosed with autism and do not define the person's abilities, capacities, or uniqueness that they bring. Socially, characteristics of autism can present themself in the form of preferred solidarity and parallel play, a desire for predictability and structure, lack of eye contact, and sometimes through a lack of responsiveness when the child or person's name is called (Autism Society, 2023). In terms of communication, Autism can commonly be characterized through a late development of speech, repetition in movement and sounds, and a lack of facial expressions and projections (Autism Society, 2023).

Emotional Behavioral Disorder

Emotional Behavioral Disorder is defined by one or more of the five following characteristics described below being present over a long period of time and to a significant degree that affects the child as a whole (Division for Emotional Behavioral Health, 2023). The characteristics include an inability to learn that cannot be explained by the child's internal

factors, inability to maintain well-developed relationships, inappropriate behaviors throughout the day to day basis, an overall mood of unhappiness, and a tendency to develop physical symptoms that connect to personal issues (Division for Emotional Behavioral Health, 2023).

Common characteristics of EBD include short attention spans, impulsiveness, aggression, lack of interaction with others, inappropriate display of behaviors, and low academic performance (Division for Emotional Behavioral Health, 2023). It is common for anyone to display these behaviors throughout their life, but what defines EBD is the recurrence and persistence of these behaviors over an extended period of time.

When a person has EBD it does not mean that they always have lower intellectual abilities. In true nature the toll that the mental illness has on the person as a whole often diminishes their ability to cope and take on the demands of daily life such as academics (Division for Emotional Behavioral Health, 2023).

EBD can affect anyone of any age, race, religion, or economic status and there is no true known cause that leads to the development of EBD (Division for Emotional Behavioral Health, 2023). Many factors that are often associated with EBD include brain disorders, diet, increase in stress, family background, personal experiences, trauma, and diet (Division for Emotional Behavioral Health, 2023). Emotional disturbances that fall under the diagnosis of EBD include anxiety disorders (such as posttraumatic stress disorder, social phobia, etc..), bipolar disorder, conduct disorder, eating disorders (anorexia nervosa and bulimia), obsessive compulsive disorder, and psychotic disorders (Division for Emotional Behavioral Health, 2023).

History of Social Emotional Learning

“The story of Social Emotional Learning is as old as the first relationship between teachers and students” (CASEL, 2023). This quote points to the fact that the principles of SEL

have always been present and active within the educational environment as teachers over the years have worked with students to create meaningful, productive relationships within the classroom.

With that being said, the actual efforts to formalize and place higher importance on SEL began in 1968 as Dr. James Corner at Yale University's Child Study Center began a program to focus on teaching the whole child (CASEL, 2023). He implemented it into practice at two schools in New Haven, Connecticut and within a few short years, the two schools showed a significant decrease in behavioral issues and a large increase in academic achievement and performance (CASEL, 2023). As a result, the New Haven School District called for a districtwide focus on the development of a child's social skills and interactions. Here, the New Haven Social Development program began, pioneered by the team of Timothy Shriver and Dr. Roger P. Weissberg as they began the first official work of SEL strategies and programming across K-12 classrooms (CASEL, 2023).

After Weissberg led the first drive to SEL across K-12 classrooms, the push to make SEL a more prominent part of student curriculum was pushed by the nonprofit called Collaborative for Academic, Social, and Emotional Learning, which is commonly referred to as CASEL within academic communities (CASEL, 2023). In 1994, CASEL began as a group mixed with researchers, educators, practitioners, and child advocates met to establish the mission to teach social emotional learning (CASEL, 2023) In 1997, following the 1994 that established CASEL, collaborators authored the book *Promoting Social and Emotional Learning: Guidelines for Educators*, which formally established, created and defined the field of SEL (CASEL, 2023).

Today CASEL remains as the most commonly used collaborator for the development and research towards SEL curriculum (CASEL, 2023). This nonprofit prides itself on its push to

build shared knowledge through fighting for equity, evaluating SEL programs, and partnering with research to discover actionable findings and results (CASEL, 2023). CASEL also ensures quality implementation of SEL Curriculum as members of the nonprofit support systematic implementation of SEL within school districts, offer workshop series in school communities, and provide free resources to teachers, districts, and schools (CASEL, 2023). On top of this, CASEL serves a large impact in its voice towards legislative decisions in regards to SEL implementation within the United States, as it works directly with over 40 state education agencies to advance SEL learning and use within education (CASEL, 2023). Overall, CASEL plays an imporant role in the history and push for SEL within the educational environment.

As time has progressed from the start of SEL, different strategies, curriculum, studies, and research have developed in order to more fully address and emphasize the importance of social emotional skill development of children as they grow both academically and as an important member of society. Different schools and programs take on new research and approaches to best fit the needs of their students, and new curriculums continue to be developed, taught, and practiced. SEL within schools continues to grow and expand as the realization of its overall benefits become more and more known throughout the world.

History of Special Education

The term “special education” refers to the programs, teaching, and instruction that are specifically designed to benefit students with disabilities. This form of education works to help students with disabilities reach their full potential, living a life in the real world as independently and successfully as possible. The start of special education dates back to 1954 in the court ruling of Brown v. The Board of Education of Topeka (Western Govern University, 2020). Though this court case focused on the equal opportunities of education for people of color, it benefited people

with disabilities as it emphasized the need for equal access for all to formalized and adequate learning. From this court case on, rights and fundings towards special education continued to be developed and improved upon.

Currently, in relation to the current understandings and beliefs about students within special education, the Office for Civil Rights (OCR) enforces the right of students under the Individuals with Disabilities Education Act (IDEA) (Western Govern University, 2020). The act proudly states that,

> "Disability is a natural part of the human experience and in no way diminishes the right of individuals to participate in or contribute to society. Improving educational results for children with disabilities is an essential element of our national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities" (IDEA, Section 1400 (c) (1)).

There are six pillars within IDEA that ensure that equal opportunity for students with disabilities presumes. These six pillars include: individualized education programs, free and appropriate education, the providing of least restrictive environments, the appropriate evaluation of a student for special education, parent and teacher involvement, and the placement of procedural safeguards. There are thirteen disability categories that fall under IDEA: Autism, Deaf-blindness, Deafness, Emotional Disturbance, Hearing Impairment, Intellectual Disability, Multiple Disabilities, Orthopedic Impairment, Other Health Impairment, Specific Learning Disability, Speech or Language Impairment, Traumatic Brain Injury, and Visual Impairment. The research within this thesis focuses on three specific disability categorizations including Autism, Down Syndrome (under the category of Intellectual Disability), and Emotional Behavioral Disorder (under the category of Emotional Disturbance).

Thesis Questions

This thesis focuses on further understanding the need for SEL for students with Down syndrome, ASD, and EBD while also looking at the success of differing SEL programs on students with disabilities. It is important to note that the thesis defines SEL programs as the educational practice of teaching students the skills that will help them develop into an engaged societal member who has the tools to create meaningful relationships, cooperate with others, and overcome daily challenges. The author will attempt to answer the following questions by researching and reviewing the literature on the SEL: Why do students with Down syndrome need SEL? Why do students with ASD need SEL? Why do students with EBD need SEL? How do differing SEL programs benefit the social emotional skills of students with Down Syndrome, ASD, and EBD?

CHAPTER II: LITERATURE REVIEW

Literature Search Procedures

To locate the literature for this thesis, searches of Educator's Reference Complete, Expanded Academic ASAP, Education Journals, ERIC, Academic Search Premier, and EBSCO MegaFILE were conducted for publications from 1998-2023. The list was narrowed by only reviewing published empirical studies from peer reviewed journals that focused on Down Syndrome, Autism Spectrum Disorder, and Emotional Behavior Disorder in relation to social emotional skills and social emotional curricular programs found in journals and articles that addressed the two guiding questions of research: 1). Why do students with disabilities such as Down's Syndrome, Autism Spectrum Disorder, and Emotional Behavioral Disorder need social emotional learning? 2). What are the benefits of social emotional learning for this population of students with disabilities? The key words that were used in these searches included "social emotional learning Down's Syndrome," "social emotional learning Autism," "social emotional learning EBD," "social emotional learning disabilities," "social skills for disabilities" and "social emotional curriculum for disabilities." The structure of this chapter is to review the literature on social emotional learning for students with the three disabilities in a two part structure. The first part looks at the social emotional levels and skills of people with the disabilities of Down's Syndrome, Autism Spectrum Disorder, and Emotional Behavioral Disorder (in that order) in comparison to typically developing counterparts. The second part looks at successful SEL curricular programs that were applied to each of the three disability categories and the results and success of the research.

The Need for SEL Curriculum for Children with Disabilities.

In the area of Learning Disabilities (LD), the team of Carnazzo, Dowdy, Furlong, and Quirk (2019) applied the Social Emotional Healthy Survey-Secondary (SEHS-S) to high school students ranging in grade levels of 9th grade to 12th grade. Of the total population of 2,847 students, 14% of these students had an active individualized education plan with LD as their primary disability. The results of the survey then compared the strengths that students with LDs found in themselves versus the rest of the student population.

The SEHS-S that was applied differed from other surveys in the fact that it looked at the positives students found that they had to offer, rather than focusing on negatives, risk factors, or problems (Carnazzo, et al., 2019). The self report survey contained 36 items that were categorized into one of 12 positive strength based constructs: self-awareness, self-efficacy, persistence, school support, family coherence, peer support, emotion regulation, empathy, self-control, optimism, zest, and gratitude (Carnazzo, et al., 2019). These 12 categories were then further divided into the fourth main subgroups: belief in self, belief in others, emotional competence, and engaged living (Carnazzo, et al., 2019).

Results of the survey found that students with LD showed significantly lower scores in the areas of belief in self and emotional confidence (Carnazzo, et al., 2019). Meanwhile, there was no significant difference between groups in belief in others and engaged living (Carnazzo, et al., 2019). The SEHS-S was an initial step in providing the proper support needed for students with LD in regards to SEL and the curriculum surrounding it. The research points to a significantly lower confidence in students with LD in regards to relationship formation and social-emotional skills, thus pointing to a great need to ensure that SEL programs are put in place and implemented within schools.

Down Syndrome

In regards to social emotional skills within the Down syndrome population, Barisnikov and Lejeune (2018) completed a study comparing social emotional skills of 351 children (ages 4-12), 39 young adults, and 20 participants with Down syndrome. A study was conducted using the Social Resolution Task (SRT). This testing assesses social reasoning skills in the areas of conventional and moral settings (Barisnikov & Lejeune, 2018). Participants were presented 14 colored drawings of everyday social situations. Five of these pictures showed appropriate situations and nine showed inappropriate situations (Barisnikov & Lejeune, 2018). Participants were then asked questions in regards to whether each situation was correct/incorrect and why they thought so.

In contrast to children up to the age of eight, who showed growth in social reasoning, social cues, and an understanding of social and emotional consequences, the research team found that the participants with Down syndrome showed significantly greater difficulty in "judging, identifying, and reasoning about transgression of social rules without social awareness" (Barisnikov & Lejeune, 2018). Overall, Barisnikov and Lejeune (2018) concluded that clinical populations, such as that of Down syndrome, where there is a demonstration of difficulty in social interaction and social emotional behavioral skills, could benefit from early assessment programs and a greater learning of social reasoning abilities.

A study completed by the team of Hippolyte et al. (2010) compared the social reasoning skills of adults with Down syndrome with that of typically developing elementary children. Within the study, the team used the Social Resolution Task (SRT) which is a test that assesses the appropriateness or lack of social behavior based on the knowledge of moral and conventional

rules (Hippolyte et al., 2010). The test itself has 14 illustrations that demonstrate social situations- five of the illustrations show appropriate interactions and nine of the illustrations show inappropriate. After looking at a card, the participants are then asked three questions: the first being whether or not the illustration was appropriate or inappropriate, the second was to point to the identifier why it was or was not, and the third was to explain their understanding why (Hippolyte et al., 2010). Overall, the SRT looked at judgment, identification, and understanding of social reasoning skills (Hippolyte et al., 2010).

The testing group in the study included 34 French speaking participants with Down syndrome. Of the members with Down syndrome, 12 were women and 22 were men. All of these participants were employed by two sheltered workshops and 91% of them lived with their family at home and 9% lived in congregate settings (Hippolyte et al., 2010). The age range of the testing group was between 18 and 52, with 91% of the testing participants being under the age of 42.5 (Hippolyte et al., 2010). The control group consisted of typical developing children from a public elementary school. The ages of the control group ranged from four to eleven years, with 97% of the students being under the age of 8.5 (Hippolyte et al., 2010). Both the testing and control group showed a similar average score for vocabulary.

The results of the SRT showed that both the testing group and control group were able to judge appropriateness of situations and understanding of the situations with similar results (Hippolyte et al., 2010). With that being said, the testing group had lower judgment and identification sub scores than that of the students (Hippolyte et al., 2010). These sub score results showed that the adults with Down syndrome found the social situations more difficult to process than the controls. Overall, the results of the SRT study pointed to adults with Down syndrome to have similar social emotional skills to that of an elementary aged student. Even more, the results

showed that adults with Down syndrome demonstrate more difficulty in judging and identifying inappropriate social situations, pointing to a need in introduction to an SEL curriculum for people diagnosed with Down Syndrome.

Research conducted by a team based in the Netherlands looked at the development of adaptive skills of children with Down syndrome in comparison to that of typically developing counterparts (Van Duijn et al., 2010). Using a translated and adapted version of the Vineland Screener, the team looked at the development in the three areas of communication, daily living skills, and socialization all of which are differing aspects of SEL (Van Duijn et al., 2010). In its changes and adaptations made for the study the Vineland Screener was applied as a 90-part questionnaire for parents and caretakers to answer about their children. Results of the questionnaire were then taken and the answers from families with a child with Down Syndrome were compared to that of families with a typically developing child.

The population of participants of the survey were equally spread and distributed across all of Netherlands. Of the participants, there were 984 Dutch families with children with Down syndrome (Van Duijn et al., 2010). These children all feel between the ages of zero to 12. The results of questionnaires of these families were then compared with typically developing children within the same regions and age range.

Results of the study showed that the children with Down syndrome acquired all three of the adaptive and social emotional skills at a much slower pace than their typically developing counterparts (Van Duijn et al., 2010). Results also showed that a plateau of adaptive development occurred for the Down syndrome population around the age of 12 (Van Duijn et al., 2010). These results point to the conclusion that the social emotional levels of Down syndrome are lower and halt in development earlier than that of typically developing peers. This study

emphasizes the importance of continuing social emotional skills for students with Down syndrome.

In another study, interviews of teachers and mothers were conducted to look at the behavioral similarities and differences of children with and without Down syndrome (Coe et al., 1999). The interviews were conducted using three differing questionnaires. The first questionnaire was the Revised Behavior Problem Checklist (RBPC) which looked at conduct, social aggression, attention, and anxiety/withdrawal of the children (Coe et al., 1999). The second one was the Coddington Life Events Schedule (CLES) where families notified researchers of events that had happened within the past 12 months of the interview (Coe et al., 1999). The final questionnaire was the Vineland Adaptive Behavior Scales Survey Form (VABS-SF), which looks into communication, daily living skills, and socialization skills (Coe et al., 1999).

All three of these questionnaires were administered by one of the five members of the interview team in the home of each of the participants. After the mothers completed the questionnaires, the RBPC was then sent to the teachers of the students to complete (Coe et al., 1999). The participants of the study included 44 mothers who had a child with Down syndrome and 44 mothers who had a neurotypical child. All children fell between the ages of 6 and 15.

Results of the study showed that both mothers and teachers of children with Down syndrome reported higher struggles in the areas of attention, conduct, and withdrawal (Coe et al., 1999). Interview results also showed similar reports between children with Down syndrome and their neurotypical counterparts in regards to anxiety and social aggression along with both negative and positive experiences for life events (Coe et al., 1999).

Autism

In reference to Autism and SEL, the team of Russo-Ponsaran, Lerner, McKown, Weber, Karls, Kang, and Sommer (2019) conducted research that compared the social emotional levels of young students with autism to that of the general education population. The study used SELweb, a social emotional standardized test that looks at four core social emotional domains: emotion recognition, theory of mind, social problem solving, and self-control (Russo-Ponsaran, et al., 2019). When taking the section on emotion recognition, test takers had to look at photos and decide whether the emotion expressed within the photos matched a specific target emotion. In order to test theory of mind, test takers had to listen to a story being read to them and were then asked to infer the speaker's intent within the story told. In regards to social problem solving, test takers were given a story with conflict and then asked to decide a solution that would be best. Finally, in the area of self-control, test takers were given a difficult test where their reactions to incorrect answers were analyzed. The SELweb test used within the study was structured to take around 35-40 minutes and is given to grade levels kindergarten through third grade.

There were 57 participants within the study who completed the test and had their scores then compared to average scores of the general education population. All 57 participants were between the ages of six to 10, met autism spectrum cutoffs, had an average intellectual ability, and were verbal (Russo-Ponsaran, et al., 2019). Of the participants, there were 44 males and 33 females.

The results of the study showed that most of the scores of the 57 participants were significantly below the general population norms (Russo-Ponsaran, et al., 2019). The scores of the Autism population were significantly lower in the areas of theory of mind, social problem

solving, and self control (Russo-Ponsaran, et al., 2019). Even more, the social-emotional composite score as a whole, when compared to the general population showed to be significantly lower. There was no significant difference between the two populations in the area of emotion recognition (Russo-Ponsaran, et al., 2019).

The scores and results of this study shows that when looking at a standardized SEL test, students with Autism tend to show lower social-emotional skills. This test points again to the need for an effective curriculum that focuses on supporting students with disabilities in the area of their social-emotional domain.

Another study completed by the team of Corbett, Carmean, Ravizza, Wendelken, Henry, Carter, and Rivera (2009) looked at the functional and structural aspects of the brains of people with Autism compared to a neuro-typical population. The team looked specifically at the amygdala and fusiform gyrus of each participant on MRI images and the activity of these two areas of the brain during social emotional testing. Corbett and his team decided to focus on the amygdala due to its important role in acquisition, consolidation, retrieval of emotional information, and feeling of fear (2009). Even more, the fusiform gyrus was focused on due to its role in face processing and recognition of faces (Corbett et al., 2009).

The team had the participants complete two tests while having MRI image scanning take place. The first test focused on emotion recognition and the amygdala. Participants were shown two black and white photographs of different expressive faces and asked whether or not the faces were showing the same emotion (Corbett et al., 2009). The second test focused on facial recognition and the fusiform gyrus. Participants were shown faces and asked if they were the same person or not (Corbett et al., 2009).

The participants included two groups of children ranging from the ages of eight to 12. One of the groups was composed of 12 students with high functioning Autism (Corbett et al., 2009). The members in this group had to meet two categories: they needed to have a previous medical diagnosis of autism and go through an extensive clinical interview. All of the members in this group identified as male. The second group was made up of fifteen neuro-typical participants (Corbett et al., 2009). Of this group, 13 identified as male and two were female. All students were of average intelligence and the majority of these students were recruited through the University of California (Corbett et al., 2009).

The results of the study found that the children with autism accurately matched emotions but had limited engagement of the amygdala compared to normative peers (Corbett et al., 2009). Even more, when looking at the results for face matching, it showed that students with autism had an impairment in matching faces but had some activation of the fusiform gyrus that was still less than neuro-typical children (Corbett et al., 2009). Overall, the results all pointed to a dysfunctional neural network/pathway for socio-emotional processing for kids with autism, creating a greater emphasis on the need to continue to work on SEL for this population (Corbett et al., 2009).

An experimental study completed by the team of Adolphs, Sears, and Piven (2001) looked at the social emotional skills and abilities of high functioning adults with Autism in comparison to those of neuro-typical adults. Within the study, the research team conducted four experiments relating to social skills.

The first experiment focused on discriminating the intensity of facial emotion. Within this first experiment, participants were shown two faces side by side with the same emotion, but of differing intensities (Adolphs et al., 2001). They were then asked to identify the face with the

more intense expression of that emotion. The second experiment focused on recognition of basic facial emotions. Participants were shown basic emotions being expressed within a photo (happiness, surprise, fear, anger, disgust, and sadness) and were asked to identify the emotion that was being expressed (Adolphs et al., 2001). The third experiment looked at complex social judgment. This third experiment was split up into two subtests: trustworthiness and approachability. For the subtest that focused on trustworthiness, subjects were shown faces of unfamiliar people and ranked on a scale of 1 to seven how much they would trust the people (Adolphs et al., 2001). Similarly, the subtest of approachability showed faces and then asked how likely on a scale of 1 to seven they were to initiate a conversation with these strangers if they saw them on the street (Adolphs et al., 2001). The fourth and final experiment focused on complex social judgments of lexical/verbal stimuli. This experiment was also split into two subgroups, but these were categorized by words and biographies. For the word subtest, participants were asked how much they would like someone on a scale of 1 to 7 when told a specific adjective about a person (Adolphs et al., 2001). For the subtest of biographies, the participants were read a short story describing a person's life and interests and then were asked to rank how much they would like the people (Adolphs et al., 2001).

The participants of the study were eight male subjects who all met DSM-IV diagnostic criteria for autism (Adolphs et al., 2001). All of the eight participants were verbal and had IQs that fell in the normal range. The results of the four experiments they partook in were then compared to that of a larger neuro-typical population.

The results of the study showed that there was no significant difference of discrimination of intense facial emotion and complex social judgements of lexical stimuli (Adolphs et al., 2001). The results also showed that for the most part, there was no significant difference in

recognition of basic emotions. Notably, there was one participant with autism who showed a significant difference from neuro-typical adults in the areas of identifying fear, disgust, and surprise (Adolphs et al., 2001). A significant difference was found in the area of complex social judgment of faces. The participants with autism had far higher and far more positive ratings of trust and approach compared to neuro-typical results (Adolphs et al., 2001). As a whole, the study pointed to the need of SEL in the areas of complex social understanding along with recognition of basic emotions.

It is important to acknowledge some limitations of this study. These limitations include the small sample size of people with autism and the lack of gender differentiation within that testing group. It is also important to note that this study focused on a high functioning population of people with autism. Future research should be conducted to assess the results of people with autism who have lower IQs.

In order to understand the social awareness and understanding of appropriate and inappropriate behaviors observed by people with autism, research was conducted by the team of Loveland, Pearson, Tunali-Kotoski, Ortegon, and Gibbs (2001). The method of research included actors in 24 staged scenes performing appropriate and inappropriate situations. The scenes were split equally between appropriate and inappropriate along with verbal and nonverbal.

After being shown each scene, the participants were asked the question “What that ok or was something wrong with it?” (Loveland et al., 2001, p. 370). If the participants answered that the scene showed something wrong, the interviewer then asked “what was wrong about it?” and “Why was that wrong?” (Loveland et al., 2001, p. 370). The final two questions were asked in order to see what part the participants identified as wrong and to see the levels of sophistication and appropriateness the participants had in answering the question (Loveland et al., 2001).

The participants of the study were composed of 19 children between the ages of 6 to 14 with autism and 19 people who were identified as neurotypical within the same age range. All participants had to have the verbal mental age and nonverbal mental age of at least 6 years old (Loveland et al., 2001). They also had to have a verbal IQ and performance IQ greater than 70 but no greater than 130 based on the Wechsler Intelligence Scale for Children III (WISC-III) (Loveland et al., 2001). The participants were mostly male in both of the testing groups.

The end results showed that the group with autism was less accurate in identifying examples of inappropriate social behavior, especially when it came to inappropriate behavior that was demonstrated verbally (Loveland et al., 2001). The group with autism also had greater difficulty in explaining why they found verbal behaviors inappropriate in comparison to the neurotypical group (Loveland et al., 2001). The research team came to the conclusion that, "results of this study suggest that children and adolescents with autism may understand and reason about social-conversational interactions differently" (Loveland et al., 2001, p. 372). This supports the idea that children with autism need further aid in understanding and identifying social situations, more specifically when these situations require verbal interactions.

The performance of children with autism in facial perception and emotion recognition was compared to that of typically developing peers in research done by the team of Loukusa, Mäkinen, Kuusikko-Gauffin, Ebeling, and Moilanen (2014). The team measured social perception using subtests of the Social Perception domain of NEPSY-II, which is a test that is commonly used to make concussions about neurological social skills within clinical and medical settings (Loukusa et al., 2014).

NEPSY-II is a test that is divided into two subtests- Affect Recognition and Theory of Mind (ToM). The Affect Recognition portion of the test looks at a child's ability to identify,

through matching, basic emotions to photographs of children with identifiable facial expressions (Loukusa et al., 2014). The ToM portion tests skills in both verbal and contextual tasks in order to identify one's understanding of others' perspectives. The verbal tasks measure a person's understanding of beliefs, intentions, others' thoughts and ideas (Loukusa et al., 2014). Meanwhile, the contextual tasks within the ToM tests measures a child's ability to relate emotion to the social context and world around them (Loukusa et al., 2014).

The participants of the study included 25 typically developing children with ages ranging between 4 and 8 and 14 students with ASD with ages ranging from 5 to 9 (Loukusa et al., 2014). All of the participants had IQs within the average range. All participants were of Finnish origin and living in northern Finland.

In comparing the results of the NEPSY-II tests, children with autism scored significantly lower on their Affect Recognition portion of the test (Loukusa et al., 2014). On the Theory of Mind portion, children with autism scored significantly lower in verbal tasks (Loukusa et al., 2014). There was no significant difference on the contextual tasks and nonverbal tasks of the ToM tests (Loukusa et al., 2014). The conclusions of the study pointed to the understanding that the comprehension of language greatly affects kids with autism's ability to process and perceive others' emotions (Loukusa et al., 2014). The difficulty that children with autism show in the areas of verbal emotion expression and perception points to the need of a SEL curriculum that emphasizes adaptations and lessons that focus on verbally expressed social interactions.

Emotional Behavioral Disorder

A study by Cadarella et al. (2019) looked at the behaviors of students who classify under the category of EBD in comparison to peers within the elementary school setting. In looking at

behaviors, the research team focused specifically on classroom engagement and disruption (Caldarella, et al., 2019).

In order to study the behaviors of both groups, teachers identified the most challenging parts of the day for teaching. From there, the research team conducted various 15-minute observations during those time periods. In order to ensure accurate recording of data, the research team used the program MOOSE, which is a handheld computer software (Caldarella, et al., 2019). Using MOOSE, researchers would track the frequency and duration of behaviors throughout the 15-minute time period (Caldarella, et al., 2019).

Nineteen elementary schools across the states of Missouri, Tennessee, and Utah were represented within the study (Caldarella, et al., 2019). Of these elementary schools, 311 who identified as having EBD participated and 211 students participated for peer comparison (Caldarella, et al., 2019). The grades studied ranged from kindergarten to sixth grade.

Results of the study found that the peer-comparison students had lower disruption rates and higher engagement than that of their peers who had an EBD diagnosis (Caldarella, et al., 2019). The results also found the peer-comparison students had lower reprimands and a higher praise reprimand ratio than the students with EBD (Caldarella, et al., 2019). These results point to a need to ensure that students with an EBD diagnosis receive proper SEL learning in order to help aid in the areas of disruption and classroom engagement.

Another study that looked at the social emotional skills and abilities of students with EBD was completed by the team of La Salle, George, McCoach, Polk, and Evanovich (2018). Here the team focused primarily on the perceptions of the school climate and general interactions among students with EBD and their counterparts (La Salle, et al., 2018). In order to obtain results, the Georgia Student Health Survey 2.0 was sent out amongst public schools throughout

the state and students were then given time during the school day and a school issued computer to complete it (La Salle, et al., 2018).

The survey was composed of three major subscales. The first subscale looked at the students' perspectives of their school climate as they answered questions pertaining to school connectedness, peer social support, adult social support, cultural acceptance, character, physical environment, and discipline (La Salle, et al., 2018). The second subscale focused on peer victimization and assessed negative student interactions, specifically in the areas of bullying and disinclusion (La Salle, et al., 2018). The final subscale pertained to mental health and whether or not the students had experienced specific symptoms pertaining to mental health within the past 30 days (La Salle, et al., 2018).

Participants who completed the survey included 121,425 students without disabilities (SWOD) across 617 schools and 2,128 students with EBD (SWEBD) across 497 schools (La Salle, et al., 2018). The survey was sent out during the 2014-15 academic school year across a southeastern state. Students were allowed to choose not to take the survey or abandon finishing the survey at any given time.

Results of the survey showed that SWEBD reported lower perceptions in regards to the school climate and higher rates of victimization (La Salle, et al., 2018). The survey also showed results that reported that SWEBD reported far more mental health problems than their counterparts (La Salle, et al., 2018). Overall, the study concluded that the differences between the students with EBD and their counterparts can be attributed to the idea that, "SWEBD may have in obtaining and maintaining positive interpersonal relationships with peers. They may feel isolated from or targeted by peers due to deficits in social and emotional functioning such as

emotional immaturity, misperceptions of social cues in the environment, and inappropriate behaviors" (La Salle, et al., 2018, p. 288).

A study done by the team of Wagner, Kutash, Duchnowski, Epstein, and Sumi (2005) looked at the national perspective of children and adolescents with EBD using data from two studies- The Special Education Elementary Longitudinal Study (SEELS) and The National Longitudinal Transition Study-2 (NLTS-2). These two studies looked at data taken from sources including teachers, school records, students, and parents in regards to behaviors and social emotional skills of the students (Wagner et al., 2005).

The SELS data consisted of students within special education programming who were between the ages of 6-12 during the 1999-2000 school year (Wagner et al., 2005). The NLTS-2 consisted of students ages 13-16 within special education during the 2000-2001 school year (Wagner et al., 2005). The results of both studies were compared to that of the students' with EBD peers. Participants in the study were selected at random from differing school districts, regions, and levels of district wealth in order to ensure a wider spread of sampling and more accurate results. A majority of both SELS and NLTS-2 studies consisted of survey and interview questions, many of which simply required 'yes' or 'no' answers (Wagner et al., 2005). On top of this, parents were also asked to answer questions on a scale of either 'never, sometimes, or always' in regards to their child's social skills.

Results showed that elementary and middle school children with EBD have significantly lower social skills compared to their counterparts (Wagner et al., 2005). Even so, the results also showed that children with EBD are significantly more likely to score lower on self-control in comparison to their same aged peers (Wagner et al., 2005). The results of this study point yet

again to the high importance of ensuring proper social skills training and interventions for students with disabilities, specifically in the area of EBD.

In order to identify the number of students with disabilities within juvenile correctional facilities, the research team of Quinn, Rutherford, Leone, Osher, and Poirier administered a survey that was sent out to all 51 (including the District of Columbia) heads of state departments of juvenile corrections or combined juvenile and adult correction systems (2005). The facilities were asked to identify and include every juvenile under the age of 22 that was in the system (Quinn et al., 2005). The team wanted to see if the *susceptibility theory* applied to juvenile correctional facilities. By definition, the susceptibility theory holds that students with personality and cognitive deficits such as poor impulse control, irritability, suggestibility, inability to anticipate consequences, and inadequate perception of social cues predispose them to criminal behaviors (Keilitz & Dunivant, 1987).

The survey results reflected that the number of incarcerated youth per state ranged from the numbers 30 to 7827 with a median number of 509 (Quinn et al., 2005). The number of youth who were eligible for special educational services and schooling as mandated by IDEA totaled to be 8613 (Quinn et al., 2005). The number of incarcerated youth that were eligible for special education per state tranged from 23 to 1605 youth with a median of 160 (Quinn et al., 2005). All in all, the average rate of youth with disabilities was 33.4% with a range from 9.1% to 77.5% per state (Quinn et al., 2005). Of the number of juveniles with disabilities, 47.7% of them qualified for special education under the title of emotional behavioral disorder (Quinn et al., 2005).

It is important to note that all the numbers that show the number of juveniles with disabilities doesn't contain the full number of students in juvenile correctional facilities that had disabilities. The research team found that many of the state correctional facilities still needed to

obtain prior records of the youth, where whether or not each youth qualified for special education services would be found (Quinn et al., 2005). The research team also summarized that "... the number of youth identified and receiving special education services in juvenile corrections [was] almost up four times higher than in public school programs during the same period" (Quinn et al., 2005, p. 342).

As a whole, the survey concluded that the majority of youth with disabilities are classified under the category of EBD. It can be concluded that many students that experience EBD are at a higher risk and likelihood of being placed within juvenile facilities. These correlations and connections stress the high emphasis of ensuring that education systems include SEL curriculum in order to teach proper regulation, self-expression, and identification of emotions.

Effects of SEL Curriculum on students with disabilities

After exploring the need for SEL curriculum for students with disabilities, it is important to note the impact and effects that research-based curriculum has on students once it is effectively and proactively applied.

Down Syndrome

A study conducted by Barisnikov et al. (2012) found results showing effects that social-emotional education programs had on adults with intellectual disabilities and adults with Down syndrome. The study found that social-emotional education programs led to a significant improvement on social reasoning within these two populations of intellectual disabilities and Down syndrome (Barisnikov et al., 2012).

A study conducted by the Iranian team of Hajar Barati et al. (2012), looked at the social emotional skill development of young girls with Down syndrome after receiving social skills and

social emotional training. The participants of this study included 37 students with Down syndrome ranging from ages 8-12, all of which biologically identified as females, and had an IQ ranging from 55-75 (Hajar Barati, et al., 2012).

The participants were randomly assigned to either the intervention group or the control group. The steps of the project included a pretest using the Vineland Scale, social skills training for the intervention group, a Vineland Scale post-test, and finally a follow-up test (Hajar Barati, et al., 2012). The training received by the intervention group took place for two months and was spread out amongst 10 weekly sessions. The skills trained on included greeting/introductions, sharing of devices and items, following of instructions, active listening, apologizing, cooperating with others, and maintaining and respecting school (Hajar Barati, et al., 2012).

The results of this study showed effectiveness of training of social and emotional skills on students with Down syndrome. After the students were retested on the Vineland Scale, those in the intervention group showed a significant difference from the control group in reference to an increase in test scores (Hajar Barati, et al., 2012).Limitations worth noting within this study are the rather small sample size of participants along with the factor that all the participants were females with Down syndrome. This combination of factors has the potential to skew the results of the research.

A study done by the team of Wester et al. (2019) looked at comprehensive psychoeducational and social-emotional intervention programs and their benefits on children with the combination of disabilities Down Syndrome and Autism. The intervention applied was based on the principles of ABA therapy and focused on social and interactive skills.

The participants were 14 patients with a DSM-IV diagnosis of both Down syndrome and Autism and ranged from ages 6 to 18. 11 of the participants had a severe/profound diagnosis, 2

had a moderate diagnosis, and 1 had a mild diagnosis (Wester Oxelgren et al., 2019). Of these study participants, 7 of the 14 had no verbal speech and the other 7 had major communication difficulties and relied on picture communication and an alternative way to express themselves and communicate (Wester Oxelgren et al., 2019).

Within the study, parents and teachers of the students were trained for three weeks prior to the application of the intervention. Within the time that the training took place, parents were asked to give one to five social, relational, and communicational goals they wanted their kids to achieve through the intervention (Wester Oxelgren et al., 2019). After the training and goal selection, the three-month ABA intervention took place for the participants (Wester Oxelgren et al., 2019). This intervention was implemented in the children's natural setting both at school and at home.

The results of the study showed that 92.31% of the goals created for the participants were achieved at home and 95.56% of the goals were achieved at school (Wester Oxelgren et al., 2019). The results confirmed a major reduction in behavioral and social problems for the participants. This points to the overall benefit from implementing ABA and SEL therapy into both the home and school setting.

The SEL curriculum called "Staying With Others: No Problems" is an Italian curriculum that was applied to a group of adolescents with Down syndrome in order to research whether or not a continuous and organized social emotional intervention can increase skills towards task centered and non-task centered interactions (Soresi & Nota, 2000). The curriculum focused on eight major areas of growth and teaching including basic training to strengthen already present skills, social skills to start positive relationships with peers during leisure, with peers in school, with superiors in scholastic and recreational environments, with working colleagues, with

superiors in a working environment, with the family, and with the community (Soresi & Nota, 2000).

Instruction to increase skills in these areas included six differentiated strategies (Soresi & Nota, 2000). The first used by the team was instruction, where the strategies taught would be described in detail within a classroom setting. The second strategy included modeling. Here a trainer would demonstrate how to properly use the instructed social skills. The third form of teaching was role play where the participants would have time to try the new skills they learned in a monitored environment. The fourth form of teaching was informational feedback. Advice and takeaways would be given from the trainers to the participants in order to ensure that corrections were made to ensure that social skill goals would be met. The fifth was positive reinforcement as participants were encouraged and praised by their trainers in the areas they were successful in. Finally, the sixth form of teaching included repetition in order to ensure that the skills were mastered and that the participants were confident in their abilities of the new skills and the strategies provided. After receiving instruction, the participants were all observed within their classroom environment by the research team, where data was collected on positive and negative interactions (Soresi & Nota, 2000).

The participants in the research done using the “Staying With Others: No Problems” curriculum included 20 adolescents with Down syndrome (Soresi & Nota, 2000). All of the participants were tested on their cognitive levels using the Italian translation of the WISC-R Scale, and all fell between the low to moderate cognitive levels (Soresi & Nota, 2000). The 20 members were then split up into either the experimental group or the control group. The experimental group were taught the “Staying With Others: No Problems” curriculum while the control group was administered social games (Soresi & Nota, 2000).

Results of the study found that there was no significant difference between the experimental group and the control group in the area of positive behaviors towards peers in task-centered environments (Soresi & Nota, 2000). Significant differences were found in positive behaviors towards teachers in task and non-task settings as the experiment team had higher positive ratings (Soresi & Nota, 2000). Significant difference was found as the experiment group had more positive behaviors towards peers in non-task centered interactions (Soresi & Nota, 2000). As a whole, the results of the research shows a high need for systematic, organized, and continuous intervention for people with disabilities in order to help them gain further skills towards social interactions and relationships (Soresi & Nota, 2000).

Autism

In regards to SEL programs in relation to students with autism, a focus group was conducted by researchers Gardner et al. (2021) for 8 special education teachers located in metropolitan Sydney, Australia. These teachers ranged from three to twelve years in working directly with students with autism within a special education setting.

Results of this focus group found that SEL programs are essential to have a special education high school setting involving students with autism (Gardner et. al., 2021). The research team also found that the most successful SEL programs for students with autism are based on a clear understanding of students with autism and their specific and unique learning styles and social-emotional needs (Gardner et. al., 2021). Finally, the study found that an emphasis on teaching strategies that target social competence greatly aids students with autism in self-regulation and seeing the perspective of others (Gardner et. al., 2021).

One limitation of the study completed by Gardner et al. (2021) was that the focus group was composed of teachers all from a metropolitan area, thus only allowing the perspective of a

very specific population of teachers and their students. Future research that is conducted on SEL and teacher focus groups should include the perspective of special education teachers from schools located in rural Australia.

Juliano et al. (2020) conducted a study on the benefits of the Mindfulness Schools Curriculum (MSC) on the behavioral regulation skills and emotion awareness of students with ASD. Participants of the study included 37 students from a private school that specifically focused on educating students with varying disabilities (Juliano et al., 2020). They all fell between the ages of 10 to 17 years. Qualifications of the study included an ASD diagnosis, verbal communication skills, and a high functioning educational performance (Juliano et al., 2020).

The MSC was composed of 16 sessions that focused on differing aspects of mindfulness (Juliano et al., 2020). Some of the aspects included mindful breathing, body awareness, listening skills, thought redirection, and emotions (Juliano et al., 2020). Within the time period of eight consecutive weeks, participants of the study would meet two times a week in groups of 9 to12 where a mindful educator would teach them the daily curricular skill (Juliano et al., 2020). The sessions would last approximately 30 minutes.

At the end of the study, the participants showed high improvement in executive functioning skills. (Juliano et al., 2020). The study also found that the MSC program led to an increase in the participants' attentiveness towards their emotions and state of regulation (Juliano et al., 2020). As a whole, this research points to the benefit of SEL curriculum that focuses on awareness of the self, not just in the aspects of social interaction, but in the state of regulation and internal experiences. Even more, the study shows that simply 30 minutes a day of SEL curriculum can lead to an increase in social emotional skills and self-awareness.

The Program for the Education and Enrichment of Relational Skills (PEERS) for Young Adults Intervention is another SEL curriculum that has proven effectiveness with improving the social-emotional skills of people with autism. Research completed by the team of Laugeson et al. (2015) applied the PEERS for Young Adults program to 22 young adults with ages ranging from 18 to 24. All of the participants within the study had a clinical diagnosis of autism, were described by their caregivers as having difficulty in the area of social skills, and had an composite IQ score that was greater than 70 (Laugeson et al., 2015). Of the 22 young adults, 12 were assigned to receive PEERS treatment immediately (TX), while the other 10 young adults acted as the control group (DTC), not receiving treatment until after the TX group's initial 16 weeks were up (Laugeson et al., 2015).

The research team followed the structure and curriculum required by the PEERS for Young Adults Intervention. With that being said, the TX participants received 16 weekly 90 minute sessions led by a series of licensed psychologists and their psychology fellow. The sessions intended to deliver instruction and practicing of social skills in relation to the topics of friendship, romantic relationships, conflict management, and handling rejection (Laugeson et al., 2015). Within the lessons, role play took place along with the opportunity for the group to answer perspective taking questions after being presented with everyday life situations.

The results of the study showed PEERS as an effective SEL program as there was a significant improvement in overall social skills, frequency of social engagement, and social skills knowledge within the 16 weeks that the TX group received treatment (Laugeson et al., 2015). Results of the study also showed a decrease in ASD symptoms that related to social responsiveness (Laugeson et al., 2015). This included a decrease in restricted interests and

repetitive behaviors. As a whole, the study points to the positive impact SEL curriculum has on people with autism.

Another study that looked at the benefits of Social Emotional Learning for students with Autism was done by Cheng et al. (2018). Their research looked at the use of a mobile learning device with a programmed facial recognition program and whether or not this aided in students' ability to recognize specific facial expressions and the emotions associated with them (Cheng et al., 2018). These four complex emotions included surprise, shyness, nervousness, and embarrassment.

The program used was called the 3D Complex Facial Expression Recognition (3CFER) and had three stages of learning integrated into it. The first stage on the 3CFER was identifying 3D facial expressions (Cheng et al., 2018). Here the student would be presented with a slow motion development of one of the four complex emotions and was then asked to identify the name of the represented emotion from a field of three. The second stage of the 3CFER involved having the participants look at social events that could precede a specific emotion (Cheng et al., 2018). Students would be shown a short story and then asked how the activities that occurred in the story would make a person feel. The final stage within the 3CFER included having students choose a situation that would cause an emotion (Cheng et al., 2018). They would be shown a 3D presentation of a character expressing a specific emotion and would then be asked "Choose a situation in which you would feel ____?"

The participants in the program were 24 students with a diagnosis of Autism. All participants ranged from ages nine to 12, had a verbal and full-scale IQ above 70, and came from Special Education Programs within various schools (Cheng et al., 2018). The participants were equally divided between a control and an experimental group. The control group was given a

SEL curriculum that looked at paper-based facial expression pictures in order to identify specific emotions. Meanwhile, the experimental group was given a tablet computer with the 3DFER SEL curriculum on it. All participants were given five weeks to complete their provided curriculum at their own learning pace.

The results of the study showed that the students receiving the 3DFER program had an increase in facial recognition of all four of the complex emotions (Cheng et al., 2018). The research also showed that the students within the experimental group also demonstrated an increase in the copying/mirroring of facial expressions after receiving their curriculum, showing an awareness of the changes in others' faces during interactions (Cheng et al., 2018). Overall, the research done on facial recognition showed that students benefited from explicit demonstration and the providing of life-like situations of SEL curriculum in order to increase the identification of others' emotions (Cheng et al., 2018).

The ESCAPE curriculum model is another SEL curriculum developed to increase the emotional awareness and behavioral support for students with Autism. A study done by Chou, looks at the program's success amongst middle school students with ASD (2023). The participants who were a part of the testing group and partook in the ESCAPE curriculum included 66 students with the average age of 14 who all had a diagnosis of autism, received special education services, had low levels of communication skills, and had mild cognitive functioning difficulties (Chou, 2023). The testing groups results after completing the ESCAPE curriculum were then compared to 38 students who acted as the control group, receiving no curriculum (Chou, 2023).

The ESCAPE curriculum was implemented for 17 weeks by the participants' teachers and involved three stages of development (Chou, 2023). The first stage was called Emotional Profile

and consisted of seven units (Chou, 2023). Within the Emotional Profile stage, the students would work on skills to become aware of cues from their bodily sensations that warn of intensification of stress or disturbance (Chou, 2023). The next stage involved learning the cycle of emotional distress and this stage contained three units of study. Here the participants would gain knowledge on the rumbling stage, the rage stage, and the recovery stage of emotions that many people with Autism experience during dysregulation (Chou, 2023). The third stage lasted for five units and focused on cognitive and behavioral strategies for coping with dysregulated emotions. Here participants were taught relaxation techniques, alternative thinking strategies, and peer support (Chou, 2023).

At the end of the 17-week SEL learning, the participants' social emotional skills were compared to their skills that were recorded prior to the curriculum. The results concluded that there was an increase in the test groups' overall regulation skills (Chou, 2023). Along with this, there was a significant increase in the test groups' positive outlook skills, emotional awareness, social support skills, and problem solving skills (Chou, 2023).

The study as a whole stresses the importance of students with disabilities needing to understand their own unique emotional profile. The study also shows that gradual skill development has success when teaching social emotional skills for students with Autism.

Emotional Behavioral Disorder

In order to test the significance of SEL learning for students who are at risk for emotional and behavioral disorders, the research team of Wu et al. (2010) incorporated the Social Skills Training (SST) curriculum into the school days of two third grade students within midwestern Taiwan with EBD. Both of the participants were chosen for the study based on their teacher ratings using the Personality and Behavioral Scale and based on peer sociometric ratings.

The first participant, named Mancho, was 9 years old and had an IQ of 154 (Wu et al., 2010). His score on the Personality and Behavioral Scale showed that he had the ratings of severe in the areas of interpersonal relationships, rule compliance and violation, depression, and anxiety (Wu et al., 2010). His score on the category of other behavioral abnormalities was normal (Wu et al., 2010). For the peer sociometric ratings, Mancho was ranked as "someone they disliked the most" by 18/34 of his classmates, which was the highest score out of anyone in his class (Wu et al., 2010).

The second participant, named Roshan, was nine years old and had an IQ of 120 (Wu et al., 2010). Similar to Mancho, Roshan's Personality and Behavioral Scale scores were severe in the areas of interpersonal relationships, rule compliance and violation, depression, and anxiety (Wu et al., 2010). His score for other behavioral abnormalities fell in the mild range (Wu et al., 2010). 15/34 of his classmates rated him as "someone they disliked the most" which was the second highest in the class behind Mancho (Wu et al., 2010).

The SEL curriculum for the two boys took place during pullout small groups during their study hall period. During these SEL times, they had a total of 18 skill lessons. The lesson structure included a warm-up and review, motivation and skill identification, modeling of appropriate behavior, rehearsal, and application by role playing (Wu et al., 2010). They would then be given homework based on the skill lesson to take home and practice.

After their lessons, follow up behavior was then observed across three 40-minute instructional periods- literacy, science, and indoor physical education (Wu et al., 2010). All of these observation class periods involved small group activities where students were expected to be on task and collaborate positively with peers. Three variables were measured during observation in order to analyze improvement over time on social emotional skills. These three

variables included on-task behavior, appropriate conflict resolution, and cooperation (Wu et al., 2010).

At the end of the research study, it was evident that the SST program led to improvement in all three skills for both Mancho and Roshan. At the start of the study, Mancho had percentage scores of 23.3% for on-task, 13.1% for conflict resolution, and 26.5% for cooperation (Wu et al., 2010). At the end of the study, he had scores of 75.8% for on task, 61.7% for conflict resolution, and 81.7% for cooperation skills (Wu et al., 2010). For Mancho, his scores went from 38.8% to 84.7% for on-task, 11.3% to 66.3% for conflict resolution, and 28.2% to 86.7% for cooperation skills (Wu et al., 2010). Even more after the SEL intervention, neither was voted for being in the top three disliked students, showing a significant improvement for them in their sociocultural areas (Wu et al., 2010).

All in all, the study conducted on these two students with EBD emphasizes the great importance of emphasizing social emotional skills for young, developing students with disabilities. Along with improving social skills, the study shows that SEL curriculum can help students with EBD grow in their own personal relationships, increasing the chances to be more liked and appreciated by their classmates (Wu et al., 2010).

Zeng et al. (2016) administered research to students who qualified as at risk for emotional behavioral disorders (EBD) in the format of a summer school program that provided literacy instruction. The study consisted of 92 fourth grade students from an urban public school district in the Northwestern United States. The students qualified under EBD based on the Strengths and Difficulties Questionnaire pretest that was administered (Zeng et al., 2016).

The participants were split up into two groups- 47 of the students were placed in the control group while 45 of the students were in the treatment group. Both groups received 2.5

hours of literacy instruction by teachers using evidence-based interventions designed specifically to bring children up to their grade level standard (Zeng et al., 2016). Those in the control group received only literary instruction by teachers and were present for only half days at school (Zeng et al., 2016). Meanwhile, students in the treatment group received both literary instruction by teachers and enrichment activities that were provided by the *TriplePlay* program staff (Zeng et al., 2016; Boys and Girls Club of America, 2009).

The *TriplePlay* program was designed to improve social emotional skills through activities pertaining to healthy habits (Mind), physical exercise (Body), and social recreational activities (Spirit) (Zeng et al., 2016; Boys and Girls Club of America, 2009). Students within the *TriplePlay* program were taught "self-regulation skills, appropriate peer interaction, skills, emotional regulation skills, and conflict resolution strategies" (Zeng et al., 2016, p. 599). These student enrichment activities took place through group-based projects and activities that encouraged the development of relationships, problem solving, and leadership growth skills (Zeng et al., 2016).

Results of the research concluded that the treatment group's social and emotional skills improved in comparison to the control group (Zeng et al., 2016). The treatment group specifically saw an increase in scores relating to emotion regulation and solutions to peer problems (Zeng et al., 2016). The team concluded that motivation through active play and relationship focus created opportunities for kids under the qualification of EBD to grow in SEL skills in a setting that decreases negative emotions (Zeng et al., 2016).

A study conducted by the research team of Daunic et al. (2021) looked into the effects of a SEL curriculum on kindergarten and first grade students who are at risk for emotional behavioral disorder. The team conducted their study on 246 kindergarten and first grade students

who are at risk for emotional behavioral disorder across 52 participating schools from 11 different school districts within a southeastern state (Daunic et al., 2021). Teachers within the participating schools were assigned to either the Social Emotional Learning Foundation (SELF) curriculum or were instructed to do business as usual (BAU) within their classroom. The SELF curriculum that was provided merges together SEL and literacy through small and large group instruction in order to promote self-regulation through opportunities to practice SEL skills in the framework of literacy instruction (Daunic et al., 2021). The specific instruction within the literacy program that pertained specifically to SEL focused on SEL vocabulary, self-talk, critical thinking, and application of concepts learned (Daunic et al., 2021).

The results of Daunic et al. (2021) concluded that students receiving the SELF curriculum had significant increases in their ability to identify and label their feelings in comparison to the BAU students. The results also showed an increase for the students receiving SELF in cognitive processes, specifically in the areas of solving social problems, recognizing physiological signs of emotion, and processing the consequences that come as a result from their responses (Daunic et al., 2021). Overall, the study found that their program that placed an emphasis on SEL increased the social and emotional skills of students who were at risk for emotional behavioral disorder.

Another study completed by the research team of Barfield et al. (2012) looked at mixing an SEL curriculum with therapy for children with EBD. The curriculum used was that of Conscious Discipline, a SEL program that focuses on teaching social emotional skills through parental and teacher demonstration of regulation, expressions of empathy towards student feelings, and the creation of a welcoming environment for all (Barfield et al., 2012). The Filial Therapy that was used alongside Conscious Discipline is a therapy that focuses on family

intervention incorporated into play sessions where parents engage directly with their children (Barfield et al., 2012).

The participants of the study were preschoolers ranging from the ages of 2.5-7 who received mental health services through a therapeutic preschool in the rural Midwest United States (Barfield et al., 2012). All of the preschoolers within the study had severe emotional disturbances or behavioral problems. They participated in six weeks of therapy and Conscious Discipline Curriculum that together provided sensory/motor outlets, relational activities, regulation strategies and helped children communicate their needs and take responsibility for their actions (Barfield et al., 2012).

The results of this study pointed towards significant improvements on reports of behavioral issues (Barfield et al., 2012). Along with this, the study also showed an increase in skills towards the preschoolers' social-emotional development (Barfield et al., 2012). The study emphasizes the benefits of Conscious Discipline, a SEL curriculum, while being paired with another form of child and interactive therapy.

Various Disabilities

The Promoting Alternative Thinking Strategies (PATHS) curriculum is another example of the benefits of the SEL curriculum for students with disabilities. The PATHS curriculum focuses on promoting emotional development, self-regulation strategies, and the development of social skills for students with disabilities through a series of group lessons and implementation of what was learned throughout the school year (Kam et al., 2004).

Research completed by the team of Kam et al. (2004) looked at the long-term effectiveness of the PATHS curriculum on first, second, and third grade students within federal setting three special education classrooms. The participants consisted of 133 students with

disabilities throughout seven elementary schools: 53 of these students had a primary disability of Learning Disorder, 23 had mental developmental delays, 31 students had emotional behavior disorder, 21 students had physical disabilities or healthy impairments, and finally 5 students had multiple disabilities (Kam et al., 2004). Half of the schools were identified as control groups and the other half were interventionist groups that applied the PATHS curriculum into their school day.

Results showed that the treatment group reported higher rates in the decline of depression symptoms along with a decrease in teacher reports of externalizing and internalizing problems (Kam et al., 2004). No differences were identified between the control group and the interventionist group in regards to social competence and the development of problem solving skills (Kam et al., 2004). Though there was no difference in problem solving skills, the treatment group did show a significant decrease in aggressive solutions and an increase in non-confrontational solutions (Kam et al., 2004).

The Second Step: Student Success Through Prevention (SS-SSTP) is a middle school SEL program focused on reducing bullying, physical aggression, and peer victimization among students with disabilities (Espelage et al., 2015). The SS-SSTP program was applied in a three year study that looked at whether or not there were significant improvements in the social emotional skills of students with disabilities. Within the study, teachers implemented 41 lessons based on SEL skills that included empathy, bully prevention, communication skills, and emotional regulation (Espelage et al., 2015). The lessons were spread out amongst the students' three years at the middle school. 15 of the lessons were provided during the students' sixth grade year, 13 were taught during seventh grade, and 13 were taught during eighth grade (Espelage et al., 2015). The SS-SSTP program ensured to have highly interactive lessons as instructional

practices were given through direct instruction, small group discussion, large group discussion, reflection opportunities, role play and dyadic exercises, and individual work/homework assignments.

The participants of the study were spread out amongst 12 schools within two school districts. The 123 students participating in the study had disabilities in the areas of cognitive disabilities, emotional disabilities, health impairments, multiple diseases, significant learning disorders, and speech/language impairment (Espelage et al., 2015). 47 of the participants were in the control group while the other 76 participated in the SS-SSTP program. Fifty-three percent of the participants were female and 47% of the participants were male. In terms of ethnicity, 31% were white, 53% were African American, 6% were Hispanic, and 10% were biracial (Espelage et al., 2015).

The results of the study showed a significant decrease in bully perpetration for the students when evaluated at the end of the three year implementation of the SS-SSTP SEL program (Espelage et al., 2015). This result shows that the frequency that the students within the control group bullied at school decreased. Meanwhile, in the areas of bully victimization and physical aggression, there were non-significant results.

CHAPTER III: DISCUSSION AND SUMMARY

Summary of Literature

The need for SEL curriculum for students with disabilities is applicable to various disabilities, specifically that of Down Syndrome, Autism, and Emotional Behavioral Disorder (Carnazzo et al., 2019). Without the skills that come from proper SEL training, students with disabilities tend to struggle in everyday life in areas such as mental health, social appropriateness, and verbal interactions.

Students with disabilities tend to have an increase in susceptibility to mental health problems and difficulties such as depression and anxiety (Carnazzo et al., 2019; La Salle et al., 2018; Quinn et al., 2005). The reasons for the increase in mental health problems can be attributed to multiple social emotional skill factors. One factor in particular is the higher rate of exclusion that many children and students with disabilities face (Carnazzo et al., 2019). The exclusion and typicality of ostracization is often due to negative attention from interruptions, lack of regulation leading to expression of intense emotions, low self-control, and difficulty in the area of interpersonal relationship development (Caldarella et al., 2019, Coe et al., 1999; Wagner et al., 2005; Wu et al., 2010). The increase in mental health difficulties can also be attributed to students with disabilities' high level of victimization (La Salle et al., 2018). Victimization can extend as far as both physical and nonphysical bullying and students with disabilities are more susceptible to experiencing this within the classroom environment (Carnazzo et al., 2019; La Salle et al., 2018). Students with disabilities also report a lower perception towards social climate as many have difficulties in developing and maintaining positive relationships with both peers and teachers, especially for students with an EBD diagnosis (La Salle et al., 2018; Wu et al., 2010). In regards to teachers in particular, students

with disabilities often receive less positive feedback and attention and more scolding and reprimands than their peers due to lack of self-control and misunderstanding of social expectations (Caldarella et al., 2019). A negative school climate is often associated with many students' difficulties with mental health struggles, feelings of self-worth, and importance within the community (Caldarella, 2019).

A commonality between many students with disabilities in regards to social and emotional skills is the lack of understanding between what is classified as appropriate or inappropriate in social situations. This is very common especially for students with Down syndrome as they show significant difficulty in the skills of social awareness and social values (Bariniskov et al., 2012, Hippolyte et al., 2010). In fact, the plateau for social skills development and understanding for Down syndrome typically caps off at similar levels to that of the neuro-typical eight year old (Bariniskov et al., 2012; Hippolyte et al., 2010). The rate of acquiring social skills and understanding of positive and negative interactions is also done so at a significantly slower rate for students with Down syndrome in comparison to peers (Van Duijn et al., 2010). Difficulty for the understanding of appropriate and inappropriate is also a difficulty for students with Autism, especially when it comes to clearly defining why a situation is seen as inappropriate (Loveland et al., 2001).

Students with disabilities struggle with the verbal areas of understanding and correctly interpreting social interactions (Loukusa et al., 2014; Loveland et al., 2001, Russo-Ponsaran et al., 2019). When tested on their theory of mind, many students, especially those with the diagnosis of Autism, found great difficulty in understanding social contexts or finding solutions to social conflict that are only presented verbally (Loukusa et al., 2014).

Success in social emotional skills for students with disabilities often comes when social situations are presented visually and non-verbally (Loukusa et al., 2014). Most research finds no significant differences between students with disabilities, especially those with Down syndrome and Autism, and neuro-typical counterparts when asked to identify emotions based on facial expressions (Adolphs et al., 2001; Corbett et al., 2009; Loveland et al., 2001; Russo-Ponsaran et al., 2019). This remains true and consistent in various nonverbal presentations of emotions including pictures, live acting, standardized testing, and demonstrations via AI technological presentations (Adolphs et al., 2001; Corbett et al., 2009; Hippolyte et al., 2010; Russo-Ponsaran et al., 2019).

Though there is presented difficulty for students with disabilities in the area of social emotional skills, there are solutions and curriculums that can significantly increase these skills. There is no perfect or best curriculum when it comes to SEL, but there are commonalities across many of the curricula and implementations that point to success and proactive results for students with disabilities.

One frequent characteristic of SEL success can be seen in the period of exposure that students with disabilities have to the curriculum. It can be told that longer periods of student interaction with the curriculum and consistency in that exposure leads to an increase in implementation of the curriculum in everyday interactions (Barfield et al., 2012; Chou et al., 2023; Espelage et al., 2015; Hajar Barati et al., 2012; Juriano et al., 2020; Laugeson et al., 2015; Wester-Oxelgren et al., 2019; Wu et al., 2010). A curricular exposure of at least two months and up to three years is a wide, yet acceptable, range for SEL instruction (Espelage et al., 2015; Hajar Barati et al., 2012). Though daily exposure to SEL lessons would be ideal, it is not necessarily realistic to maintain over a long period of instruction. Many programs maintain a two times a

week schedule in order to maintain routine, emphasis on outside application, and ensure coverage of the curriculum as a whole (Juliano et al., 2020).

Another recurring characteristic of successful SEL programs is active student involvement within the lesson periods (Laugeson et al., 2015; Soresi et al., 2000; Wu et al., 2010). Success of SEL learning goes beyond just instruction and presentation. Instead, many SEL programs involve role playing and perspective taking activities where students take turns acting out solutions to social problems, incorporating appropriate behavior in friendly and romantic situations, and demonstrating regulation strategies when the feeling of escalation occurs (Soresi et al., 2000; Wu et al., 2010).

Another commonality between successful SEL curricula is an emphasis on the understanding of oneself, not just on how to succeed externally in social situations. Many curriculums focus on body awareness, where the student practices recognizing internal changes that take place during the experience of differing emotions (Chou et al., 2023; Juliano et al., 2020; Zeng et al., 2016). After the emotional profile is understood, SEL curriculums often emphasize practices that teach regulation (Barfield et al., 2012; Chou et al., 2023). Regulation practices often include mindful breathing and thought redirection (Juliano et al., 2020; Zeng et al., 2016). Even more, the practice of recognizing negative self-talk and transforming it to positive internal self-thoughts and finding one's own skills and strengths leads to more confidence in social situations where anxiety and lack of certainty once occurred (Daunic et al., 2021; Zeng et al., 2016). Furthermore, teacher understanding of the disability by the training team, family members, and teachers allows for patience, specific diversification of teaching, and better targeting of skills (Gardner et al., 2021).

As a whole, SEL for students with disabilities often leads to a significant increase in the ability to recognize emotions through facial expressions, social awareness, conflict approach skills, cooperation, critical thinking, and social engagement (Barisnikov et al., 2012; Cheng et al., 2018; Chou et al., 2023; Soresi et al., 2000). SEL for students with disabilities has also led to a decrease in areas such as bullying, restricted interests, social problems, attention seeking, aggression, and depression (Espelage et al., 2015; Kam et al., 2004; Laugeson et al., 2015).

Limitations of the Research

Due to the broadness of the topic of SEL, the search parameters were limited to focusing on SEL in regards to the disabilities of Down syndrome, Autism, and Emotional Behavioral Disorder. The three categories of disability were chosen in order to encompass some of the most recurring and common disabilities within the educational setting. Boundaries used to limit the scope of the research included search filters to ensure that only peer reviewed literature and research that was completed within the past 25 years. Doing so narrowed down the number of articles available but ensured accuracy and reliability of the research used. On top of this, limiting research to the past 25 years allowed for more accurate representation of current viewpoints, acceptance, and understanding towards disabilities.

Overall, the research used within this literature review had a much higher rate of male participants throughout most of the studies. The large number of males, especially within the studies focusing on ASD, can be associated with the higher chance of males having an ASD diagnosis due to genetic makeup and biological differences from females (Baron-Cohen, 2004). Much of the SEL results lean more towards the impact on the male gender than those that identify as female.

The research was not limited to location. Though much of the literature review was based on findings and results from the United States, some was also reflective of studies done in countries such as Taiwan, Italy, and India. By some parties, the varieties of cultures used within this literature review lack consistency with education styles and expectations from one location to the next. On the other hand, the variety of locations can also be seen as a positive. It shows that the proper teaching of SEL leads to success no matter the country.

Implications for Future Research

Future research on the topic of Social Emotional Learning for people with disabilities should include sample populations that show a more equal distribution of male and female participants. In doing so, there can be greater confidence in whether or not particular curriculums are successful for both genders.

Future research should also ensure that there is a greater understanding on SEL for individualizes with severe to moderate disabilities. Much of the research found for this literature review had participants with IQs above 70. Though there may be more difficulty in finding consistent forms of testing with participants that classify under a severe to moderately severe diagnosis, further research on this population will ensure a better reflection with SEL success amongst both low and high functioning individuals with disabilities.

Professional Application

The research presented within this literature review is undoubtedly applicable to many educators who work with students who have disabilities. From this literature review, educators learn that a structured and well-crafted SEL curriculum is greatly beneficial to students of all ages with disabilities. SEL is proven to lead to an increase in success in the classroom. Improvements include more positive behaviors, an increase in student participation, and an

increase in on-topic conversation. The use of SEL curriculum within the classroom setting influences the creation of healthy relationships and friendships for students with disabilities. Even more, educators should note that SEL curriculum for the student with disabilities is connected to improvements on the person as a whole as self-regulatory strategies are taught and a decrease in depression and anxiety is found. As the social structure within a learning environment increases, it fosters a place in which students and educators can blossom both relationally and academically.

There is a movement towards a greater emphasis on teaching the student as whole, but there is still growth that needs to happen in this area. Teachers and administrators need to remember that a proper, well-rounded education creates individuals that are ready to take on the real world including future careers but also relationships and daily interactions. The pressure of students to meet specific scores on academic standardized tests and the expectation of teachers to follow a specific structure to accomplish this goal leads to the teaching of social and emotional skills to be tossed to the side. Though this is a big issue that is often out of the ability of the educator to change, it is within the teachers' power to voice concerns to higher ups who are able to stir action within the field of education.

Teachers already have their hands full, especially those within special education where free time is filled with due process paperwork and individualized academic development. The expectation of educators to find a fitting and successful SEL curriculum goes beyond their pay grade and time to do so efficiently and beneficently. It should be the responsibility of the school and even so far as the district's administration to find and establish a SEL curriculum that is proven to be effective for the student population, especially for those with disabilities.

When a proper and well-supported social-emotional curriculum is found, there needs to be proper teaching of that curriculum to educators. This can be done in the form of paid workshops, educator conferences, and curricular development days focused on the SEL curriculum that is chosen. If new expectations are placed on educators to teach SEL curriculum without the proper training and support, it can be assumed that the growth for students will not meet their full potential. All parties within a district's education system that focus on the development of the student need to be involved in the addition and greater emphasis on SEL for students with disabilities in order to ensure the most success.

Conclusion

The research done in this literature review aims to answer two research questions: 1). Why do students with disabilities such as Down syndrome, Autism Spectrum Disorder, and Emotional Behavioral Disorder need social emotional learning? 2). What are the benefits of social emotional learning for this population of students with disabilities? It is evident that students with these three specific disabilities need further social emotional learning as they show a need when compared to typically developing peers for self-regulation skills, relational development skills, emotion recognition, and conflict resolution. When a proper social emotional learning curriculum is applied towards people with the disabilities of Down syndrome, Autism Spectrum Disorder, and Emotional Behavioral Disorder there are overall improvements on the student as a whole. This includes more positive behaviors in the classroom, an increase in peer acceptance, a development of self-regulation strategies and the ability to recognize emotions, and a decrease in the presence of mental health needs.

References

Adolphs, R., Sears, L., & Piven, J. (2001). Abnormal processing of social information from faces in Autism. *Journal of Cognitive Neuroscience*, *13*(2), 232–240. https://doi.org/10.1162/089892901564289

Autism Society. (2023). Retrieved June 1, 2023 from https://autismsociety.org/the-autism-experience/

Autism Speaks. (2023). Retrieved May 31, 2023 from https://www.autismspeaks.org/what-autism

Barisnikov, K., & Lejeune, F. (2018). Social knowledge and social reasoning abilities in a neurotypical population and in children with Down syndrome. *PloS One*, *13*(7), e0200932–e0200932. https://doi.org/10.1371/journal.pone.0200932

Barisnikov K, Lachavanne A, Maire H, Sandoz M, Straccia C. Social and emotional abilities in children with Down syndrome: An integrated approach In: Barisnikov K, Zinchenko Y, editors. *From basic executive function to the highest psychological functions: Research methodology concerns in psychology*. Lomonosov Moscow State University: Publ. House; 2012. pp. 372–407.

Barfield, S., Dobson, C., Gaskill, R., & Perry, B. D. (2012). Neurosequential model of therapeutics in a therapeutic preschool: Implications for work with children with complex neuropsychiatric problems. *International Journal of Play Therapy*, *21*(1), 30–44. https://doi.org/10.1037/a0025955

Baron-Cohen, S. (2004). *The essential difference : male and female brains and the truth about autism* (1st pbk. ed.). Basic Books.

Caldarella, P., Larsen, R. A. A., Williams, L., Wills, H. P., & Wehby, J. H. (2019). Teacher

Praise-to-Reprimand Ratios: Behavioral Response of Students at Risk for EBD Compared with Typically Developing Peers. *Education & Treatment of Children*, *42*(4), 447–468. https://doi.org/10.1353/etc.2019.0021

Carnazzo, K., Dowdy, E., Furlong, M. J., & Quirk, M. P. (2019). An evaluation of the Social Emotional Health Survey—Secondary for use with students with learning disabilities. *Psychology in the Schools*, *56*(3), 433–446. https://doi-org.ezproxy.bethel.edu/10.1002/pits.22199

Cheng, Y., Luo, S., Lin, H., & Yang, C.-S. (2018). Investigating mobile emotional learning for children with autistic spectrum disorders. *International Journal of Developmental Disabilities*, *64*(1), 25–34. https://doi.org/10.1080/20473869.2016.1206729

Chou, Y.C. (2023). Escape from Emotional Distress: A Curriculum Model to Enhance Self-Directed Emotion Regulation of Students with Autism Spectrum Disorder. *Education and Training in Autism and Developmental Disabilities*, *58*(1), 106–122.

Coe, D. A., Matson, J. L., Russel, D. W., Slifer, K. J., Capone, G. T., Baglio, C., & Stallings, S. (1999). Behavior problems of children with Down syndrome and life events. *Journal of Autism and Developmental Disorders*, *29*(2), 149–156. https://doi.org/10.1023/A:1023044711293

Corbett, B. A., Carmean, V., Ravizza, S., Wendelken, C., Henry, M. L., Carter, C., & Rivera, S. M. (2009). A functional and structural study of emotion and face processing in children with autism. *Psychiatry Research*, *173*(3), 196–205. https://doi.org/10.1016/j.pscychresns.2008.08.005

Daunic, A. P., Corbett, N. L., Smith, S. W., Algina, J., Poling, D., Worth, M., Boss, D., Crews,

E., & Vezzoli, J. (2021). Efficacy of the social-emotional learning foundations curriculum for kindergarten and first grade students at risk for emotional and behavioral disorders. Journal of School Psychology, 86, 78-99. https://doi.org/10.1016/j.jsp.2021.03.004

Division for Emotional Behavioral Health. (2023). Retrieved June 1, 2023 from https://debh.exceptionalchildren.org/behavior-disorders-definitions-characteristics-related

Espelage, D. L., Rose, C. A., & Polanin, J. R. (2015). Social-Emotional Learning Program to Reduce Bullying, Fighting, and Victimization Among Middle School Students With Disabilities. *Remedial and Special Education*, *36*(5), 299–311. https://doi.org/10.1177/0741932514564564

Gardner, A., Wong, M., & Ratcliffe, B. (2021). Social-Emotional Learning for Adolescents on the Autism Spectrum: High School Teachers' Perspectives. *Australasian Journal of Special and Inclusive Education, 45*(1), 18-33. https://doi.org/10.1017/jsi.2020.13

Greenberg, M. T., Domitrovich, C. E., Weissberg, R. P., & Durlak, J. A. (2017). Social and Emotional Learning as a Public Health Approach to Education. *The Future of Children, 27*(1), 13-32.

Hajar Barati, Masoume Tajrishi, & Firoozeh Sajedi. (2012). The Effect of Social Skills Training on Socialization Skills in Children with Down Syndrome. *Iranian Rehabilitation Journal*, *10*(1), 35–38.

Hippolyte, L., Iglesias, K., Van der Linden, M., & Barisnikov, K. (2010). Social reasoning skills in adults with Down syndrome: the role of language, executive functions and socio-emotional behavior: Social reasoning skills in adults with Down syndrome. *Journal of*

Intellectual Disability Research, *54*(8), 714–726. https://doi.org/10.1111/j.1365-2788.2010.01299.x

Juliano, A. C., Alexander, A. O., DeLuca, J., & Genova, H. (2020). Feasibility of a school-based mindfulness program for improving inhibitory skills in children with autism spectrum disorder. *Research in Developmental Disabilities*, *101*, 103641–103641. https://doi.org/10.1016/j.ridd.2020.103641

Kam, C.M., Greenberg, M. T., & Kusché, C. A. (2004). Sustained Effects of the PATHS Curriculum on the Social and Psychological Adjustment of Children in Special Education. *Journal of Emotional and Behavioral Disorders*, *12*(2), 66–78. https://doi.org/10.1177/10634266040120020101

Keilitz, L, & Dunivant, N. (1987). The learning disabled offender. In C. M. Nelson, R.. B. Rutherford, & B. I. Wolford (Eds.), Special education in the criminal justice system (pp. 120-137). Columbus, OH: Merrill.

La Salle, T., George, H. P., McCoach, D. B., Polk, T., & Evanovich, L. L. (2018). An Examination of School Climate, Victimization, and Mental Health Problems Among Middle School Students Self-Identifying With Emotional and Behavioral Disorders. *Behavioral Disorders*, *43*(3), 383–392. https://doi.org/10.1177/0198742918768045

Laugeson, E. A., Gantman, A., Kapp, S. K., Orenski, K., & Ellingsen, R. (2015). A Randomized Controlled Trial to Improve Social Skills in Young Adults with Autism Spectrum Disorder: The UCLA PEERS® Program. *Journal of Autism and Developmental Disorders*, *45*(12), 3978–3989. https://doi.org/10.1007/s10803-015-2504-8

Loukusa, S., Mäkinen, L., Kuusikko-Gauffin, S., Ebeling, H., & Moilanen, I. (2014). Theory

of mind and emotion recognition skills in children with specific language impairment, autism spectrum disorder and typical development: group differences and connection to knowledge of grammatical morphology, word-finding abilities and verbal working memory. *International Journal of Language & Communication Disorders*, *49*(4), 498–507. https://doi.org/10.1111/1460-6984.12091

Loveland, K. A., Pearson, D. A., Tunali-Kotoski, B., Ortegon, J., & Gibbs, M. C. (2001). Judgments of social appropriateness by children and adolescents with autism. *Journal of Autism and Developmental Disorders*, *31*(4), 367–376. https://doi.org/10.1023/A:1010608518060

National Down Syndrome Society. (2018). Retrieved August 20, 2018, from https://www.ndss.org/about-down-syndrome/down-syndrome/

Quinn, M. M., Rutherford, R. B., Leone, P. E., Osher, D. M., & Poirier, J. M. (2005). Youth with Disabilities in Juvenile Corrections: A National Survey. *Exceptional Children*, *71*(3), 339–345. https://doi.org/10.1177/001440290507100308

Russo-Ponsaran, N. M., Lerner, M. D., McKown, C., Weber, R. J., Karls, A., Kang, E., & Sommer, S. L. (2019). Web-based assessment of social-emotional skills in school-aged youth with autism spectrum disorder. *Grantee Submission*, *12*, 1260–. https://doi.org/10.1002/aur.2123

Soresi, S., & Nota, L. (2000). A Social Skill Training for Persons with Down's Syndrome. *European Psychologist*, *5*(1), 34–43. https://doi.org/10.1027//1016-9040.5.1.34

Van Duijn, G., Dijkxhoorn, Y., Scholte, E. M., & Van Berckelaer-Onnes, I. A. (2010). The

development of adaptive skills in young people with Down syndrome. *Journal of Intellectual Disability Research*, *54*(11), 943–954. https://doi.org/10.1111/j.1365-2788.2010.01316.x

Wagner, M., Kutash, K., Duchnowski, A. J., Epstein, M. H., & Sumi, W. C. (2005). The Children and Youth We Serve: A National Picture of the Characteristics of Students With Emotional Disturbances Receiving Special Education. *Journal of Emotional and Behavioral Disorders*, *13*(2), 79–96. https://doi.org/10.1177/10634266050130020201

Wester Oxelgren, U., Westerlund, J., Myrelid, Å., Annerén, G., Johansson, L., Åberg, M., Gustafsson, J., & Fernell, E. (2019). An intervention targeting social, communication and daily activity skills in children and adolescents with Down syndrome and autism: a pilot study. *Neuropsychiatric Disease and Treatment*, *15*, 2049–2056. https://doi.org/10.2147/NDT.S205721

Wu, C., Lo, Y., Feng, H., & Yafen, L., (2010). Social Skills Training for Taiwanese Students at Risk for Emotional and Behavioral Disorders. *Journal of Emotional and Behavioral Disorders*, *18*(3), 162–177. https://doi.org/10.1177/1063426609344605

Zeng, S., Benner, G. J., & Silva, R. M. (2016). Effects of a summer learning program for students at risk for emotional and behavioral disorders. Education & Treatment of Children (West Virginia University Press), 39(4), 593-615. https://doi.org/10.1353/etc.2016.0026