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Social and Emotional Learning in Preschool: An Evaluation of *Strong Start Pre-K*

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ABSTRACT

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Young children face unique social challenges, and they need social and emotional resilience skills in order to navigate their way through school. Many of the children who need the most help are in family situations where parents are not able to teach these skills. Students can become more resilient through social and emotional learning (SEL) in the classroom. SEL teaches children to identify the emotions of themselves and others, to communicate their emotions in a nonviolent way, and to be good friends. By teaching SEL at a young age, teachers can help children become more adept as they make friends and learn how to interact in social situations, thus bolstering their relationships with friends and adults. Improved social and emotional skills help students succeed in academics and with their peers as they form social connections. *Strong Start Pre-K,* a social and emotional learning curriculum, was evaluated in a local preschool program. Using a nonequivalent control group design, two preschool teachers taught the curriculum in their classrooms, and a third classroom was the control. Both before and after the implementation of the curriculum, data were gathered from classroom teachers on their students' emotional regulation, internalizing behaviors, and the teachers' perceived relationships with their students. Results indicated a slight increase in emotional regulation and a significant decrease in internalizing behaviors in the treatment groups. Student-teacher relationships improved, specifically with a decrease on the subscale of Conflict. Treatment fidelity indicated that teachers were able to implement most or all of the components of each lesson 90% of the time. Social validity measurements indicated that the teachers would recommend the curriculum to other educators.

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Literature Review

According to the National Institute for Early Education Research, preschool enrollment is on the rise, with more parents choosing to enroll their children in early education programs. In the United States alone, during the 2007–2008 school year, state-funded preschool enrollment increased by 108,000 students, bringing the total of enrolled three- and four-year-olds to over 1.1 million (Barnett, Epstein, Friedman, Stevenson Boyd, & Hustedt, 2008). On a state- and government-funded level, 14.2 percent of three-year-olds and 40.3 percent of four-year-olds attended general education, special education, or Head Start preschool programs during the 2009–2010 school year (Barnett, Epstein, Carolan, Fitzgerald, Ackerman, & Friedman, 2010). When combining these numbers with privately funded preschool enrollment numbers, more than 80 percent of four-year-olds in the United States attend some sort of educational program, as do more than 50 percent of three-year-olds (Barnett et al., 2008).

As these children begin to form friendships at such a young age, they need guidance as to what actions, words, and emotional expressions are socially appropriate. Children's nonverbal messages convey social information to their peers. This information can influence subsequent social interactions (Denham & Weissberg, 2004). When children begin preschool, they begin to experience the effects their emotions can have on their peer and student teacher relationships. In school, children must be able to differentiate appropriate and inappropriate social behaviors as well as understand which emotions to display that would be helpful and relevant in certain situations (Denham & Weissberg, 2004). If relationship skills are not taught to children, going through school and establishing peer relationships can be difficult. Social connections (e.g., social support and maintained friendships) help provide needed resiliency (Denham & Weissberg, 2004), as can societal and parental influences.

Throughout this paper, several areas of importance to this study will be addressed. First, the factors that influence children and their ability to develop socially and emotionally are examined, as well as how these behaviors manifest themselves. Second, the research suggests school is a good place to teach children emotional regulation and factors are discussed that may affect children's relationships with both peers and teachers. The effects of early intervention programs are documented. Next, social and emotional learning is discussed, and several methods used to teach this in the schools are described. Rationale is provided for choosing *Strong Start Pre-K* for this study. Finally, the issues of fidelity and validity of the test measures are discussed and the research questions are presented.

Children's Social and Emotional Learning

Influence of societal and parental factors. There are many factors that can influence a child's development, but among the most influential are the societal and parental influences that are experienced in early childhood (Cooper, Masi, & Vick, 2009). Some children encounter unpleasant situations or risk factors early on in their lives that can hinder development in later periods. These situations include, but are not limited to, poverty, parental employment stresses, low parental education, marital discord, lack of stability, family dysfunction, ineffective parenting, child maltreatment (physical or emotional), and poor physical or mental health of child or parent. Doll and Lyon (1998) note that when a student experiences two or more risk factors, the negative psychological consequences are multiplicative rather than additive, suggesting that certain life circumstances can become major stumbling blocks for children if they lack the skills to manage difficult situations. As young children mature into adolescents, stressful life events can engender delinquency, learning problems, unemployment, criminal activity,

teenage parenthood, decreased intelligence, social incompetence, and mental or physical health problems (Doll & Lyon, 1998).

The risk of developing social, emotional, and mental health problems is also increasing due to recent changes in the structure of society and families (Doll & Lyon, 1998; Greenberg et al., 2003). Along with the decline of societal values, some of the societal and familial changes include a larger percentage of children living in poverty, a larger percentage of children who do not live with or have support from both parents, and a larger percentage of changes in family composition (Harland, Rijneveld, Brugman, Verloove-Vanhorick, & Verhulst, 2002; Huaqing Qi & Kaiser, 2003). All of these factors have detrimental effects on a child's development (Cooper et al., 2009).

A child's development is also affected by his or her family makeup. Because divorce continues to be prevalent, family composition is becoming more and more diverse (U.S. Department of Health and Human Services, 2010). Children may not be in situations where both parents can be involved in their lives. As more children grow up in nontraditional families, a larger proportion of children will not experience the influence or benefits of both parental figures (Harland et al., 2002; Lewis & Lamb, 2003). Lewis and Lamb (2003) found that an increase in paternal play and involvement in a child's life can predict positive social and emotional development and an increase in social adjustment as the child matures. Therefore, it is reasonable to conclude that a decrease in paternal play can have the opposite effects, affecting a child's stability and development negatively.

Other factors affecting the stability of a family environment and parent-child relationships include parental economic stresses, substance abuse, and mental health problems (Merrell, Whitcomb, & Parisi, 2009; Egger & Angold, 2006). The tension and anxiety

experienced by overly stressed parents may affect a child's social and emotional competence due to emotional resonance, where the child recognizes and emulates the parents' emotions. Parenting stress has a strong relationship with the display of internalizing behaviors in children, as children may be subject to worrying and increased levels of anxiety due to their circumstances from a young age (Anthony, Anthony, Glanville, Naiman, Waanders, & Shaffer, 2005).

Many societal and parental factors manifest their influence on a child's development by the time the child begins school. Webster-Stratton and Taylor (2001) suggest that negative parenting factors, child factors, and situational factors during the toddler/preschool years can lead to problems in school and with peers—for example, early onset conduct problems in the elementary years. Early onset conduct problems affect peer groups, parental bonding, school/teacher bonding, and academic performance. These problems tend to predict adolescent substance abuse, delinquency, and violence. Hester and colleagues (2004) identify similar influences on the development of such behavioral problems: characteristics of the child; characteristics of the parent; interaction between the child and parent; and economic, cultural, and social factors. It can clearly be seen that a myriad of factors involving the child, his or her parents, and the surrounding society all contribute to affect the child's development.

Development of emotional regulation. As children interact with others, their emotions play a vital role. According to Denham and Weissberg (2004), it is important to help children think about their interpersonal interactions and the role emotions play in these interactions. This enlarges their emotional experience, knowledge, regulation, and expression, leading to responsible decision making and an understanding of how to help social situations flow more smoothly. Positive social skills and the ability to form and maintain relationships will influence later academic success, social interactions, and quality of mental health (Denham & Weissberg,

2004). Cohen (2006) argues that the direct teaching of emotions and social learning as important life skills can help students meet the aims of education. Teaching these character skills school-wide can help create a climate for learning and encourage student participation in democracy. In his research, Goleman (1995) found that children who are able to manage their emotions are better able to learn, pay attention, absorb information, and retain what they have learned.

Conversely, children with poor emotional communication may display more academic struggles, more difficulties connecting with their peers in school, and more tendencies to use physical aggression to convey their thoughts (Denham & Weissberg, 2004). These social problems occur frequently among preschool-aged children, as this is the age where children typically develop the capacities to regulate their words, thoughts, emotions, and behaviors (Egger & Angold, 2006). If children are impeded in their typical development, dysfunctions in these emotional regulation capacities could occur. Common issues among children include depression, anxiety, aggression, and defiance (Egger & Angold, 2006). Most of these behavioral issues fall into one of two categories: internalizing behaviors or externalizing behaviors.

Manifestation of Emotions through Behaviors

  Internalizing behaviors. Internalizing problems include behavioral problems such as sadness, irritability, lack of energy, hopelessness, feelings of worthlessness, crying, clinging, poor concentration, disturbance in sleep, and excessive worry or distress (Greenberg, Domitrovich, & Bumbarger, 2001). These behavioral problems can escalate into anxiety disorders (separation anxiety, social and specific phobias, and generalized anxiety disorder), mood disorders (major depressive disorder and bipolar disorder), or sub-clinical levels of these disorders. These problems have become more prevalent in younger children over the past few years and tend to persist over time (Bayer, Sanson, & Hemphill, 2006).

Some children with anxiety and/or depression exhibit impaired problem-solving abilities and irrational cognitive styles. These children may lack the coping skills to manage internal distress because of these distorted perceptions (Greenberg et al., 2001). Cognitive distortions can lead to more serious problems, such as major depressive disorders or suicide (see Greening et al., 2007; Kovacs, Goldston, & Gatsonis, 1993; Kuhlberg, Peña, & Zayas, 2010). As a result, it is important to identify warning signs minimize or prevent the development of cognitive distortions or ineffective coping skills in children during their early years.

Research has identified possible predictors for internalizing behaviors: learned behaviors from a parent dealing with anxiety or depression; over-involved parenting that negatively affects children's ability to learn effective problem solving strategies; and marital conflict or low cohesion in the home (Bayer et al., 2006; Greenberg et al., 2001). Protective factors against internalizing behaviors include social support and modeling of problem-focused coping strategies through adult-child interactions (Greenberg et al., 2001).

Externalizing behaviors. Externalizing problems include behaviors such as violence, aggression, inattention, hyperactivity, defiance, and disruptive actions (Greenberg et al., 2001). When severe enough, these behaviors can be classified as attention deficit hyperactivity disorder, oppositional defiant disorder, and/or conduct disorder. Such behaviors and disorders can be expressed in violent acts and criminal behaviors, potentially leading to disastrous consequences for the child and society. These behaviors or their predecessors often manifest themselves earlier in life, when the child is still in school.

Greenberg et al. (2001) report that children with behavior disorders have poor problem-solving and social skills, difficulties maintaining peer relationships, higher rates of cognitive distortions, and difficulties learning and achieving due to conflicts within the student-teacher

relationship. Campbell (1995) found that as these young children continue in their behaviors, they are more likely as teenagers to experience difficulties such as drug abuse, depression, juvenile delinquency, school dropout, and peer rejection. A proactive approach to the prevention of these problems is needed before the problems are supported and reinforced unintentionally through multiple venues.

Importance of Emotional Regulation in Schools

Leads to peer acceptance. As children learn social skills and work with classmates, they are more accepted in their peer groups (Grusec, Davidov, & Lundell, 2002). Prosocial children tend to be positive, well regulated in their emotions, and low in impulsivity (Grusec et al., 2002). In order to regulate emotions, preschoolers must first recognize and understand what emotions are and when they are experiencing them (Denham, von Salisch, Olthof, Kechanoff, & Caverly, 2002). By recognizing emotions in themselves and others, children can successfully interact with those who are happy, sad, or angry, even when they themselves are happy, sad, or angry. They are also better able to handle social interactions because they show higher social competence skills and are able to recognize the emotions and feelings of others in their social group (Denham et al., 2002).

Children learn about the appropriateness of expression as they mature and as their capacities for prosocial responding increase. According to Denham (2005), expression, regulation, and knowledge of emotions—collectively known as *emotional competence*—are crucial skills for positive outcomes in social and academic domains. In a study conducted by Izard et al. (2001), researchers found that preschool children's emotional knowledge (as measured by recognizing and interpreting emotional cues in facial expressions) has long-term effects on social behavior and academic competence (as measured at the end of third grade). In

concordance with this study, there exists a strong relationship between correctly interpreting facial expressions and peer acceptance in preschool children. Those children with emotional and behavioral problems have difficulties producing and discriminating affective facial expressions (Walden & Field, 1990). This suggests that children who can correctly interpret affective expressions may have better social relationships and possess greater skills in regulating their own emotions.

Increases quality of relationships. In addition to the aforementioned factors, once a child is in school, his or her behavior is further influenced by the quality of instruction, the quality of interactions with the teacher and peers, and the quality of his or her own social communication abilities (Webster-Stratton & Taylor, 2001). The development of social skills and the opportunity for socialization help children discover their own ways of interacting with peers (Dewolf & Benedict, 1997). If children acquire maladaptive ways of interacting with others, they may be rejected due to their own aggression toward, or withdrawal from, others. Early peer rejection is a predictor of later academic failure, school dropout, adolescent delinquency, and psychological difficulties, such as anxiety and depression (Dewolf & Benedict, 1997).

Children's relational behavior and quality of relationships in school may also be influenced by the experiences children bring with them to school (Jerome, Hamre, & Pianta, 2008). Some students have had positive experiences where they have learned emotional regulation and had exposure to social development, and they tend to form positive relationships with ease. Other students struggle to form a positive attachment to adults due to their prior experiences and attachment history. A lack of positive relationships can lead to behavioral

problems. Jerome and colleagues (2008) have stated, "Children's relationship patterns reflect fluctuating external characteristics as well as internalized characteristics of the child" (p. 916).

Counterbalances imperfect home environments. One external factor that may have an impact on children's relationship development is the home. Children with higher-quality home environments are more likely to experience quality care in school and, in turn, have relationships that are more positive with teachers (Jerome et al., 2008). This suggests that the inverse is also true, where those who have a lesser-quality home environment may experience a lower quality of care in school and have relationships that are more negative with teachers. This has large implications for Title I schools that emphasize the importance of working to develop quality relationships. It is important for children to feel a positive connection with their teachers at school, as students are able to learn more when they have that secure attachment and positive relationship in place.

Addresses dimensions of a relationship. Hamre and Pianta (2001) have identified three dimensions of a relationship that are consistent across many demographics: conflict, closeness, and dependency. The ideal relationship has little conflict and dependency and is characterized by warmth and closeness. Teacher-child relationships that are marked by conflict may lead to attempts to exclude children from the classroom and control behavior, which hinder efforts to promote a positive school environment. When children experience relationships that are prone to conflict, there tends to be a decrease in prosocial and emotional competence behaviors and an increase in aggressive behaviors, problem behaviors, and school avoidance.

Positive student-teacher relationships tend to predict positive academic outcomes (Hamre & Pianta, 2001; Jerome et al., 2008), as children have an affinity toward school and are self-

directed, cooperative, and friendly with peers. Clearly, an effective way for teachers to increase the academic achievement of their students is to develop positive relationships with them.

Significance of Early Intervention

Promotes resilience through nurturing environments. All students possess certain characteristics to help them through trying life circumstances. However, some children struggle through these situations due to the large number of risks that outweigh the assets they possess (Matsen, 2001). Researchers have explored this phenomenon of success that most children experience and have identified it as resilience. There are two key parts to the definition of resilience: there must be a significant threat to development, and the quality of adaption must be considered acceptable (Matsen, 2001). Resilience is the capacity to successfully adapt and create a positive outcome, despite challenging circumstances or serious threats to development (Howard & Johnson, 2000; Matsen, 2001). Simply defined, resilience is the ability to do well even when experiencing unfavorable life circumstances.

While some children have enough assets to help them through trying times, other students need to build additional assets. To help build assets and combat the issues young children face, students from all backgrounds (especially disadvantaged backgrounds) can be taught skills to become resilient through direct instruction, thereby providing an opportunity to be successful in school (Doll & Lyon, 1998; Matsen, 2001). Early intervention programs that focus on resilience skills are preventive measures that build upon children's assets and counterbalance the risks and adversities many students and their families face (Matsen, 2001). The positive and constructive climate of schools, enhanced by such early intervention programs, may compensate for the negative influences that affect a child's well-being (Anthony et al., 2005).

Hester et al. (2004) call for the creation of early intervention environments where the development of social, academic, and emotional aspects of student life are supported and nurtured. Progression in social competence requires the opportunity for children to practice regulation of their emotions in an environment where they feel a sense of security (Raver, 2002). Furthermore, children can gain of a positive sense of self as they develop socially, academically, and emotionally (Raver, 2002).

Another feature of early intervention environments is cultivating a child's social and emotional skills. Social and emotional skills training can help buffer a child through periods of negative emotionality and positively guide them in social relationships (Denham & Weissberg, 2004). Although parents, caregivers, and teachers can all provide instruction in emotional regulation skills, many parents of at-risk children may be too stressed or too occupied to take the time to teach their children. In addition, many parents simply do not know that they should teach their children these skills. This places more responsibility on schools to educate, nurture, and support the healthy social and emotional development of children (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2007; U.S. Public Health Service, 2000). For many children, especially those from low-income families, the knowledge gained in early preschool programs can mean the difference between failing and passing classes, regular or special education, dropping out of or graduating from high school, and possibly staying out of trouble or becoming involved in crime and delinquency (Barnett, 1995).

Provides advantages through programming opportunities. Early intervention programs are essential in helping children learn to cope with emotional problems and make nonaggressive choices, especially when a child's home environment is not supportive (Ma, Truong, & Sturm, 2007). Programs can teach and foster protective characteristics in young

children to help them cope with and rise above family and social problems. Protective factors like positive temperament, positive social relationships and friendships, self-efficacy, self-confidence, self-esteem, and strong connections to social institutions can increase a child's resiliency (Doll & Lyon, 1998). Most schools have the capacity, stability, and resources—which many impoverished home environments lack—to implement resiliency programs (Doll & Lyon, 1998). Therefore, schools can become environments that allow students to increase their emotional awareness and knowledge of how to deal with emotional problems that might be present.

Denham and Weissberg (2004) have found that it is important to openly discuss and directly teach concepts such as feelings, thoughts, and behaviors with young children. Educators should teach what is socially appropriate and what is not. This should be done in an explicit manner, with specific explanations and examples of appropriate behavior (e.g., "Thank you for including Amy in the game; she feels happy now") and explanations of why certain things are not appropriate (e.g., "When you hit Bobby, it hurts him and makes him sad"). It is important for teachers to model positive expressions and appropriate behaviors when things are going well in class and, more importantly, when things are not. Teachers can be examples when they model how to handle undesirable situations or mistakes by discussing and clarifying their own emotions and behaviors while dealing with present issues. By persistently persuading children toward appropriate behaviors, children are assisted in integrating emotion, cognition, and appropriate behavior into their everyday situations.

Daniel Goleman (1995), the author of *Emotional Intelligence*, wrote that programs that focus on increasing emotional intelligence could benefit all students, especially students who are considered at-risk. It is important to identify young students who are at-risk so they can receive

appropriate interventions during preschool years to prevent further academic and behavioral problems in their later years (Huaqing Qi & Kaiser, 2003). Although it may be challenging to identify and label young children as at-risk, it is imperative to do so in order to implement appropriate interventions. Furthermore, universal interventions are appropriate because all students benefit in some way (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011, Hester et al., 2004).

Merrell et al. (2009) believe that "children who fail to acquire the empathy or social skills needed to be successful in making and keeping friends are at-risk for a variety of social and emotional problems, ranging from isolation and peer rejection to loneliness, poor self-esteem, and even depression" (p. 8). Even though social, emotional, and behavioral problems continue to persist, an increase in social and emotional learning (SEL) may promote wellness and alleviate existing mental health and behavioral issues (Whitcomb, 2009).

Social and Emotional Learning

The Collaborative for Academic, Social, and Emotional Learning (2003) states that SEL is the process and framework whereby children are able to recognize and manage their emotions and the emotions of others, develop empathy, make good decisions, establish positive friendships, and handle challenges and situations effectively. SEL also helps children develop a larger metaphorical well from which to draw when expressing their feelings. In addition, SEL helps students recognize emotions first in themselves, then in others, in order to be more empathetic toward others. Through the SEL curriculum, children learn what is appropriate when engaging others in social situations and how to make and keep friends.

SEL curricula directly teach children appropriate actions and provide opportunities for students to practice what they learn in a safe environment. SEL promotes positive behaviors,

such as success, kindness, and caring. It also prevents bullying, violence, truancy, and substance abuse problems (CASEL, 2007; Whitcomb, 2009). SEL helps students and teachers handle themselves and their relationships, and work in an effective and responsible manner (CASEL, 2007).

Based on the empirical results found by CASEL, it appears that SEL is a useful framework for teaching children. The United States Secretary of Education, Arne Duncan, stated that SEL skills are learned skills and continues,

> Children can have huge challenges but if you help them learn how to handle those, deal with them, then you have a chance. When you do not, they cannot get past those challenges and cannot begin to think about what's going on in class but these are absolutely teachable, learned skills. (Collaborative for Academic, Social, and Emotional Learning [CASEL], 2010)

Once children learn the SEL skills and are able to address their social and emotional challenges, they are better able to focus on what is happening in the classroom and have a greater chance of academic success (Zins, Weissberg, Wang, & Walberg, 2004).

Social and emotional skills are predictors of prosocial behavior, attentional control, and academic competence (Whitcomb, 2009). SEL can help decrease emotional distress and conduct problems (CASEL, 2007). As students develop emotional knowledge, they are better able to identify and label emotions in themselves and others (Whitcomb, 2009). Social and emotional skills are also linked to competencies in language, literacy, and mathematics, all of which affect classroom behavior. Implementation of SEL programs have resulted in significant improvements in students' academic performance, learning, and success in adulthood (CASEL, 2007; Durlak et al., 2011).

Recently, a meta-analysis of SEL studies evaluated the impact of SEL programs for students in kindergarten through eighth grade (Payton et al., 2008). The review examined intervention programs for two school-based programs and one after-school program: the general student body without any identified behavioral or emotional difficulties, students who display early signs of behavioral or emotional problems, and students without identified problems, respectively. When compared to control groups, students who participated in SEL programs at school demonstrated increased social-emotional skills, more positive attitudes toward self and others, more positive social behaviors, fewer conduct problems, lower levels of emotional distress, and significantly better academic performance. Students who participated in the after-school programs targeting SEL skills also made gains in self-perceptions, school bonding, positive social behaviors, increased achievement test scores, and fewer conduct problems. The amount of change demonstrated by all students in the intervention programs was compared to previous research on outcomes of effective youth programs. The findings reflected similar to or higher amounts of change overall for those in the SEL intervention groups. Specifically, achievement test scores for students in the SEL intervention programs increased 11 to 17 percentile points when compared to the average student in a control group (Durlak et al., 2011; Payton et al., 2008).

Other benefits of social and emotional learning include improved academic performance in the classroom, reduced negative behavior, and improved school environments for students and teachers (Zins et al., 2004). Implementation of some form of SEL has been mandated in many states and districts. The National Association of State Boards of Education (2010) outlines the emotional, social, and mental health education requirements (in which SEL can be categorized) for each state. While many states neither require a specific curriculum nor recommend one, they

do set standards and guidelines from which to teach personal coping and stress management strategies, healthy expression of emotions, and character education.

Researchers have developed unique programs to teach SEL to all students (Merrell & Gueldner, 2010). Three socialization techniques are used to promote social and emotional learning in young children: (a) teaching about emotions and behavior; (b) modeling appropriate behaviors and emotions; and (c) displaying helpful reactions to children's emotions and behavior (Denham & Weissberg, 2004). The preschool environment needs to be enriching and conducive to positive behavior and appropriate emotions. In addition to recognizing and managing emotions through social and emotional learning, children can benefit by learning to care about others, make good decisions, behave ethically and responsibly, avoid negative behaviors, and develop positive relationships (Zins et al., 2004).

SEL is more than just a process of curriculum. It is a framework used to create an environment of trust and respect in the classroom, as well as the school, that should be infused into everyday teaching (CASEL, 2003). Emotional stability and security is a foundational aspect of SEL. All children, especially young children, need to form positive attachments with caring adults that they can trust (Hyson, 2004). These relationships foster a sense of well-being in the children, a belief that they are of worth, and a sense of safety in the world. They also help children learn to relieve stress, manage anger, and deal with social situations (Denham & Weissberg, 2004). In this safe environment, children become empathetic, united, and are able to work together to achieve academic goals and work in cooperative learning groups (CASEL, 2003).

SEL in preschools. While the practices of SEL and the infusion throughout the school community are important for students in all grades, early intervention in the younger grades is

beneficial. Young children's brains have more plasticity than older children do as their young neural connections are still forming and developing, and they are able to learn much during this period that sets a foundation for their lives. Through repeated experiences and exposure to SEL, positive shaping of the thoughts and actions of young children can occur. As SEL skills are taught, preschool children can learn techniques to manage their anger, tune into other people's emotions, and get along better with others (see CASEL, 2003).

Preschool children think concretely rather than abstractly. Therefore, they need curriculum presented in a concrete manner (Merrell et al., 2009). They are better able to understand lessons when they are able to see, touch, or otherwise physically participate. Because they are still developing their thought processes and vocabulary, preschool children have a more difficult time with tasks requiring a substantial amount of interpersonal insight and self-reflection; they have trouble clearly defining their feelings. As they learn to initiate appropriate social interactions, develop friendships, and adjust to different social rules and expectations outside of the home, children need to be directly taught these skills. A classroom environment is appropriate for such teaching because the children do not need to be concerned about their emotional safety (CASEL, 2010).

Although the majority of SEL programs have been developed for children in grades kindergarten through 12, there have been some curricula developed for, or tailored to, preschool-aged children. One curriculum that has been developed for this young age group is *I Can Problem Solve—Preschool (ICPS Preschool)* (Shure, 2001). *ICPS Preschool* is a 59-lesson curriculum that focuses on violence prevention by increasing prosocial behaviors such as sympathy, sharing, and problem solving, and decreasing impulsivity through a series of short lessons. *ICPS* teaches children how to think rather than what to think. The main components of

ICPS include identifying feelings and problem solving through developing alternative solution skills. One way *ICPS* promotes listening skills, paying attention, and teaching students how to think is by using word pairs to understand contrasting concepts (e.g., same–different, some–all , if–then) (Merrell & Gueldner, 2010).

A second curriculum is *Promoting Alternative Thinking Strategies—Preschool (PATHS Preschool)* (Domitrovich, Greenberg, Kusché, & Cortes, 2004). *PATHS Preschool* promotes social and emotional learning by promoting alternative thinking strategies. The *PATHS Preschool* lessons are designed to be taught two to three times a week and typically last 20 to 30 minutes. *PATHS Preschool* targets emotional awareness, self-control, interpersonal problem solving, and peer relationships through three different units: self-control, feelings and relationships, and interpersonal cognitive problem solving. Some components of this curriculum are listed: identification of feelings, perspective taking, frustration tolerance, relaxation through deep breathing, and how to deal with sadness and disruptive behaviors (Merrell & Gueldner, 2010).

A third curriculum is *Safe and Caring Schools: Skills for School, Skills for Life—Grades Pre-K–K* (Petersen, 2005). The focuses of *Safe and Caring Schools* are developing prosocial skills and improving academic functioning. *Safe and Caring Schools* is a sequenced yet flexible curriculum that includes monthly SEL themes and many activities that accompany each theme. The curriculum targets self-awareness, social skills, and responsible decision-making (Merrell & Gueldner, 2010).

A fourth curriculum is *Strong Start Pre-K* (Merrell et al. 2009). *Strong Start Pre-K*, a 10-lesson curriculum, focuses on social-emotional wellness via explicit instruction. The curriculum targets knowledge of healthy social-emotional behavior and peer relations. Some components of

Strong Start Pre-K include emotion awareness, anger and stress management strategies, and identification of thinking errors (Merrell & Gueldner, 2010).

Rationale for choosing *Strong Start Pre-K*. Although these curricula are highly effective, some curricula may not be practical for every school or child due to particular target problems, focus of interventions, desired outcomes, individual school or student differences, and available resources (Merrell & Gueldner, 2010). Each school must determine which program best fits their needs. However, *Strong Start Pre-K* may have some advantages over other SEL curricula in that it is relatively brief, easy to use, inexpensive, and requires little training (K. W. Merrell, personal communication, June 23, 2010).

The *Strong Kids* Curricula

Strong Kids (the parent program of *Strong Start Pre-K*; Merrell, Carrizales, Feuerborn, Gueldner, & Tran, 2007) is a series of evidence-based curricula that has been studied by numerous individuals (e.g., Caldarella, Christensen, Kramer, & Kronmiller, 2009; Feuerborn, 2004; Gueldner, 2006; Kramer, Caldarella, Christensen, & Shatzer, 2010; Merrell, Juskelis, Tran, & Buchanan, 2008). Originally developed for children in grades three through eight, the need for the curricula throughout children's educational experience became apparent (Merrell & Gueldner, 2010). Additional *Strong Kids* curricula were developed for various age groups with developmentally appropriate content. Currently, there are five grade-specific versions covering grades pre-K through 12.

Strong Kids was created as a prevention program in collaboration with the Oregon Resiliency Project. While it has also been used as a secondary intervention, it is still primarily used as a primary prevention program. Research has shown positive increases in prosocial behavior and decreases in internalizing behavior in both uses of the curriculum (Brown, 2006;

Gueldner, 2006; Kramer et al., 2010; Nakayama, 2008). In comparing *Strong Kids* and different tiers of intervention, Feuerborn (2004) found more significant differences in the primary prevention group than in the secondary prevention group.

Strong Start Pre-K (Merrell et al., 2009) is a highly structured and partially scripted curriculum that covers specific objectives and goals. *Strong Start Pre-K* was designed to consider the unique cognitive, social, and emotional needs of young children and has targeted lessons accordingly, including additional booster lessons that reinforce the learned skills. The curriculum is aimed at preventing emotional and mental health problems while developing a vocabulary to express feelings. It is also designed to promote social and emotional resiliency and competence using techniques such as familiar examples; repetition and review; and short, interesting lessons that maintain preschoolers' attention (Merrell et al., 2009). Izard et al. (2001) suggest that prevention programs should begin early and include opportunities to detect and interpret emotions in facial expressions. *Strong Start Pre-K* does just that by showing pictures of faces to children and having them identify which faces are happy, sad, angry, disgusted, surprised, and afraid.

After *Strong Start K-2* was implemented in kindergartens, the teachers expressed some concerns about the developmental level of parts of the curriculum (Kramer et al., 2010). Some teachers felt that a few of the lessons were too long and could not maintain the attention of the students. It was also reported that some activities were not participatory enough and that a few were too difficult for the young children. Merrell et al. (2009) addressed these issues in *Strong Start Pre-K* by making the lessons shorter and more active through student participation and role playing.

Appraisal of Program Implementation

      Treatment fidelity. The majority of social and emotional learning programs for preschool children are relatively new. In order to achieve the preliminary results, the programs must be implemented with fidelity. Although there may be some variance in implementation, fidelity is the degree to which the treatment and its components are delivered as intended (Domitrovich & Greenberg, 2000). In a review of 21 studies, Hester, Baltodano, Gable, Tonelson and Hendrickson (2003) found that only 38% (n = 8) of the studies reported content and process fidelity (which assesses the delivery of the intervention). If the treatment fidelity is not reported, it is unknown whether the content was taught in a standardized manner or the intervention was implemented in the way it was designed (Domitrovich & Greenberg, 2000; Hester et al., 2003). By measuring treatment fidelity, researchers can know whether the obtained results were true indicators of change as a result of treatment, a flaw in the study design, or a problem with service delivery (Domitrovich & Greenberg, 2000).

      Social validity. SEL curricula need to be socially valid. As more teachers and students support the social and emotional skills that the curricula target, other teachers will feel more comfortable using the curricula as they teach social and emotional skills. Social validity refers to the social acceptability of a treatment program and evaluates whether or not the resulting behavioral changes are important to the clients or consumers of the program (Kazdin, 1977). Social validity of an intervention involves examining three components: (1) the significance of the goals; (2) the appropriateness of procedures; and (3) the importance of the outcomes (Wolf, 1978). Socially valid curricula should reflect goals, procedures, and outcomes that schools consider important (Gresham, 1983).

Social validity can provide insights into teachers' willingness to participate in the use of a curriculum and can inform researchers and administrators of the relationship between the program's effectiveness and their satisfaction in using the curriculum (Hester et al., 2003). By evaluating a program's goals, procedures, and outcomes, researchers can see how important and relevant the curriculum is to educators and consumers. Olive and Liu (2005) echo others as they encourage researchers to make the assessment of social validity a priority in intervention studies.

Research Questions

Although there have been empirical studies completed on the effectiveness of other versions of the *Strong Kids* curricula, it appears that a study has yet to be conducted that evaluates the efficacy of the preschool version of *Strong Start*. Other studies of the *Strong Kids* curricula demonstrate significant increases in students' emotional knowledge and prosocial behaviors, and decreases in their negative emotional symptoms and internalizing behaviors (Caldarella et al., 2009; Feuerborn, 2004; Gueldner, 2007; Kramer et al., 2010; Merrell et al., 2008). This study addressed five specific research questions:

1. What effect does *Strong Start Pre-K* have on teacher ratings of the social and emotional competence of preschool students? Specifically, do teachers report an increase in students' emotional regulation and a decrease in students' internalizing behaviors?

2. When booster lessons are taught following the conclusion of the 10-lesson curriculum, is an additional effect noted by teachers on measures of social and emotional competence?

3. What effect does *Strong Start Pre-K* and the corresponding booster lessons have on student-teacher relationships?

4. Are preschool teachers able to implement *Strong Start Pre-K* with fidelity?

5. Do teachers view *Strong Start Pre-K* as socially valid?

Method

Participants and Setting

Participants included teachers and children from a Title I preschool in a metropolitan area in Utah. There were two female teachers who taught the curriculum as the treatment condition and two female teachers in the control condition classroom. In each condition, one of the teachers was Hispanic and one was Caucasian. Although data were collected on 103 students, 19 of them were not included in the study due to the high mobility rate of the Title I preschool. Participating in the study were 84 preschool students (50% female, 50% male) from various ethnicities: 66.7% Hispanic, 26.2% Caucasian, 3.6% Mixed Ethnicities, 2.4% African American, and 1.2% Native American. There were 52 students who received the curriculum (treatment group and treatment plus boosters group) and 32 students who did not (control group).

Treatment Variable

The independent variable was the presence or absence of the *Strong Start Pre-K* curriculum (Merrell et al., 2009), which included 10 lessons and two booster session lessons. In addition, the curriculum included for each of the 10 lessons a bulletin that was sent home to the parents at the end of each class. The bulletin outlined the contents of each lesson, provided the parents with strategies to reinforce the lessons learned, and offered a few suggested books to read. As the school has a high Latino population, the bulletin was translated into Spanish to account for the parents who preferred to receive communications in Spanish.

The first lesson was an overview of the curriculum and explained the importance of becoming strong and healthy on the inside of our bodies. The second and third lessons aimed to improve emotional vocabulary while focusing on six common emotions (happy, sad, afraid, angry, surprised, and disgusted). Students learned to identify how these emotions made them feel

inside and how to express their feelings appropriately. In the fourth lesson, the students learned how to identify anger in their own bodies and ways to help them manage their anger (e.g., "Stop, Count, In, Out" strategy). The fifth lesson focused on being happy and learning "Happy Talk" to cope with the negative feelings they may experience. The sixth lesson focused on helping students learn how to manage their stress and anxiety. After learning about emotions within themselves, the next lessons focused on understanding emotions in others. In the seventh lesson, students learned cues to understand emotions in other people. Students learned what it takes to be a good friend in lesson eight. Conflict resolution skills were taught on a developmentally appropriate level in lesson nine, and previous strategies such as "Stop, Count, In, Out" and "Happy Talk" were used to help solve people problems. Lesson 10 concluded the curriculum with an overview of the previous lessons and provided encouragement to be strong on the inside. The first booster lesson reviewed lessons one through six that focused on identifying emotions within the student. The second booster lesson reviewed lessons six through nine and focused on the emotions of peers and solving problems that may arise with others. See Appendix A for a more detailed overview of each lesson.

The curriculum included specific objectives for each lesson. To aid teachers in implementing all of the components, the curriculum was partially scripted (Merrell et al., 2009). Teaching methods relied heavily on children's literature, direct instruction, and role-playing. Each classroom had designated a specific stuffed animal as a mascot of the curriculum that served as a visual reminder of the skills learned during each lesson.

To assess the feasibility of the curriculum, teachers were given a brief, one hour, introduction to the curriculum and the importance of SEL at the beginning of the school year.

Teachers were given the manuals in advance, so they could familiarize themselves with curriculum and prepare the lessons before teaching.

Measures of Student Behaviors

Dependent measures. This study included three quantitative dependent variables. Teachers rated preschool students' social and emotional competence as assessed on subscales of the Preschool Behavioral and Emotional Rating Scale (PreBERS; Epstein & Synhorst, 2009) and the Preschool and Kindergarten Behavior Scales–Second Edition (PKBS–2; Merrell, 2002). Teachers also rated their relationship with each of their students using the Student-Teacher Relationship Scale (STRS; Pianta, 2001).

PreBERS. The preschool students were evaluated by their teachers on the Emotional Regulation subscale (13 items) from the PreBERS. The PreBERS normative preschool sample included 1,471 preschool students from across the nation ranging from 3 years 0 months to 5 years 11 months in age. The emotional regulation subscale has an internal consistency (Cronbach's alpha) of .96 for content sampling and an alpha of .89 for time sampling reliability (Epstein & Synhorst, 2009). Sample items include "Controls anger toward others," "Reacts to disappointment calmly," and "Takes turns in play situations" (see Appendix B). Teachers respond to these questions using a four-point Likert scale with responses ranging between Very much like the child (3) to Not at all like the child (0).

PKBS–2. The second dependent measure consisted of student scores on the Internalizing Behavior subscale (15 items) from the PKBS–2. The PKBS–2 was normed with over 3,300 students, including those from various racial and ethnic backgrounds. The internalizing problems subscale has a coefficient alpha of .90 ($p < .001$) (Merrell, 2002). Sample items include "Does not respond to affection from others," "Has problems making friends," and "Is afraid or fearful"

(see Appendix B). Teachers responded on a four-point Likert scale with responses ranging from *Never* (0) to *Often* (3).

   STRS. The third measure evaluated the teachers' perceptions of their relationships with their students on the Student-Teacher Relationship Scale (STRS) before the curriculum was taught and again six weeks after the conclusion of the *Strong Start Pre-K* lessons (during the follow-up period). The STRS had a normative basis of 275 teachers and 1,535 children ages four years one month to eight years old (preschool through third grade) from a variety of backgrounds and socioeconomic statuses.

   The internal reliability of the STRS was calculated using Cronbach's alpha and the Total Score scale of the total normative sample which had a coefficient alpha of .99 (SEM 5.07). This scale contains 28 items that fit into one of three relational categories: Conflict, Closeness, or Dependency. Conflict is defined as "the degree to which a teacher perceives his or her relationship with a particular student as negative and conflictual" (Pianta, 2001, p. 2). Closeness is defined as "the degree to which a teacher experiences affection, warmth, and open communication with a particular student" (Pianta, 2001, p.2). Dependency reflects a teacher's variability in experiences of negotiating and supporting autonomy in relationships with students. More precisely, it is a measure of over-dependence (Pianta, 2001). The teachers' perceptions of the overall positivity and effectiveness of a relationship with a student is measured by the Total Score. Sample items include "This child and I always seem to be struggling with each other," "I share an affectionate, warm relationship with this child," and "This child asks for my help when he/she really does not need help" (see Appendix B). Teachers responded on a five-point Likert scale with responses ranging from *Definitely does not apply (1)* to *Definitely applies (5)*.

Program integrity. This study included two measures that evaluated the integrity of the study. The first measure was a self-report social validity scale completed by the teachers that measured their thoughts and beliefs regarding the goals, procedures, and outcomes of the curriculum. Research assistants completed the second measure that was used to evaluate the quality of the implementation of the curriculum.

Social validity. Social validity was measured using teacher rating scales derived from Kramer et al. (2010) and Whitcomb (2009) (see Appendix C). The scale used a five-point Likert scale with responses ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), followed by five open-ended questions. Sample items include, "A student's level of social and emotional competence is important to their academic success," "I feel my students learned important skills from *Strong Start,*" "The teaching procedure of the program was consistent with my regular teaching procedures," and "What changes would you make to the curriculum content?"

Treatment fidelity. Researchers were present during the implementation of the lessons to observe and measure treatment fidelity using the *Implementation Checklists* (see Appendix D). These checklists contain a detailed outline of the objectives and topics defined in the *Strong Start Pre-K* manual. The number of components and the degree to which they were implemented (e.g., not implemented, partially implemented, fully implemented) during each lesson were recorded.

In addition to content implementation, student participation was also noted by the number of student responses per lesson and the number of opportunities to respond (recorded on the *Implementation Checklists*). The researchers also noted the amount of praise and the number of reprimands given during the lesson. An opportunity to respond (OTR) was defined as a specific, instructional question or statement made that seeks a verbal or behavioral response from an individual or the group. A relevant student response was defined as an oral or behavioral

response from an individual or the group because of the OTR. Praise was defined as an evaluative statement made by the teacher that indicated approval of the desired behavior or response. Reprimands were verbal comments made by the teacher indicating disapproval of student behavior. The definitions of OTR, student responses, praise, and reprimands used in the current study are similar to those used by Whitcomb (2009).

Procedures

Prior to the implementation, the study was approved by Brigham Young University's Institutional Review Board, as well as the Provo Preschool Program. Upon approval from the two institutions, teachers were randomly assigned to either treatment or control conditions and given a brief orientation to the study. Consent forms outlining the curriculum and the purpose of the study (see Appendix E) were sent home with each child in the treatment classrooms at the beginning of October. The collection of data began toward the end of the same month.

All of the teachers were given the PKBS–2 and PreBERS subscales, as well as the STRS, to complete for each child in each of their classes before the implementation of the curriculum. After the rating scales were completed, the classroom teachers taught the 10 *Strong Start Pre-K* lessons over the course of six weeks, beginning at the end of October and going through the first week in December. Approximately two lessons were taught each week at a time that was convenient for each teacher, as suggested by Gueldner (2006) and used by Brown (2006). Each lesson had a corresponding bulletin that was sent home to parents to inform them as to the content of the lessons, as well as provide suggestions for reinforcement of skills at home. At the conclusion of the 10 lessons, in the middle of December, all teachers were given posttests to evaluate each of their students on emotional regulation and internalizing behaviors. One of the treatment teachers was randomly chosen to implement the two booster lessons during the month

of January. At the conclusion of the booster lessons, a third battery of rating scales (PKBS–2, PreBERS, and STRS) was completed by all of the teachers to evaluate the maintenance of skills and the effects of the booster lessons. At this time, the two teachers that had taught the curriculum were also given social validity scales to complete.

Design and Analysis

The study was conducted using a nonequivalent control group design. Although the students were not randomly assigned to groups, the teachers and their classes were randomly assigned to one of three groups: treatment, treatment plus boosters, or control.

Results from the internalizing behavior subscale and emotional regulation subscale were each analyzed quantitatively using a 3 x 3 split plot Analysis of Variance (ANOVA) to examine the effects of groups (treatment, treatment plus boosters, and control) across time (pretest, posttest, and follow-up). Student-teacher relationships were measured using a 3 x 2 split plot ANOVA. The probability distribution, Wilk's Lambda, was used on the quantitative measures to test mean differences when the distribution was equal. Pillai's Trace was used when the distribution was not evenly divided according to the data from Mauchley's Test of Sphericity. The effect size was calculated using Cohen's *d*. Teacher response rate across the rating intervals was 100%.

Social validity and treatment fidelity were analyzed quantitatively and qualitatively. While 27 questions regarding social validity were analyzed quantitatively using descriptive statistics, the five open-ended questions were analyzed qualitatively by members of the research team (two Caucasian females: one research assistant pursuing a graduate degree and one possessing a Bachelor's degree) to ensure inter-rater agreement. In their analysis, the researchers used *check coding* (Miles & Huberman, 1994) to review the teachers' comments, note where

opinions differed, and discuss differences until reaching a consensus. Regarding treatment

fidelity, two researcher assistants were both present on 10 occasions to record the number of

lesson components taught. Total inter-rater agreement was 80% across observed sessions, as

calculated by the following formula for percentage agreement when looking at occurrence

reliability (Smith, Vannest, & Davis, 2011):

$$\frac{Agreements}{Agreements + Disagreements} \text{ X } 100$$

Results

The study was designed to answer the following questions:

1. What effect does *Strong Start Pre-K* have on teacher ratings of the social and emotional competence of preschool students? Specifically, do teachers report an increase in students' emotional regulation and a decrease in students' internalizing behaviors?

2. When booster lessons are taught following the conclusion of the 10-lesson curriculum, is an additional effect noted by teachers on measures of social and emotional competence?

3. What effect does *Strong Start Pre-K,* and the corresponding booster lessons, have on student-teacher relationships?

4. Are preschool teachers able to implement *Strong Start Pre-K* with fidelity?

5. Do teachers view *Strong Start Pre-K* as socially valid?

Each of these research questions will be addressed below.

Emotional Regulation

Using the data from the Emotional Regulation subscale (PreBERS), a mixed-design ANOVA was used to evaluate the change over time in the students' emotional regulation. The data indicate that while there was not a significant interaction between time and group ($F(4, 162)$ = 1.31, $p > .05$), there was a significant main effect across time ($F(2, 162) = 44.27$, $p < .001$) and group ($F(2, 81) = 31.06$, $p < .001$). There was a slight, nonsignificant increase in emotional regulation for each of the three conditions (see Table 1 and Appendix F). No additional effect was noted as a result of the implementation of the booster lessons. It should be noted that improvement in emotional regulation is indicated by an *increase* in PreBERS scores.

Table 1
Means and ANOVA results for teacher ratings on the PreBERS

Group	n	Pretest *M* (SD)	Posttest *M* (SD)	Follow-up *M* (SD)	*F*	*d*
Treatment	24	8.87 (2.64)	10.21 (2.90)	10.29 (2.58)	8.65*	0.56
Treatment + Boosters	28	11.86 (1.70)	13.68 (1.12)	13.14 (1.41)	26.38*	0.83
Control	32	12.37 (2.39)	13.56 (1.41)	13.94 (1.16)	8.83*	0.85

Note: An increase in score on the PreBERS is desirable as it suggests an increase in emotional regulation.

* p < .05

Internalizing Behaviors

A mixed-design ANOVA was conducted on the data from the Internalizing Behaviors subscale (PKBS–2). It was found that there was a significant interaction between time and group ($F(4, 162) = 5.08$, $p = .001$). The main effects for both time ($F(2, 162) = 29.92$, $p < .001$) and group ($F(2, 81) = 66.73$, $p < .001$) were also significant. Upon examination of the data, it appears that internalizing behavior decreased the most in the treatment group, with a mean decrease of 9.71. While the treatment group made the greatest gains in reducing internalizing behaviors initially, the treatment group with boosters was more capable of maintaining and further reducing their internalizing behaviors over time (difference of 10.39, $SD = 4.22$; see Table 2 and Appendix G). It should be noted that improvement in internalizing behaviors is characterized by a *decrease* in PKBS–2 scores.

Table 2
Means and ANOVA results for teacher ratings on the PKBS–2

Group	n	Pretest M (SD)	Posttest M (SD)	Follow-up M (SD)	F	d
Treatment	24	118.46 (16.17)	105.96 (18.87)	108.75 (17.58)	8.82*	0.59
Treatment + Boosters	28	89.57 (9.22)	83.43 (2.43)	79.18 (5.00)	15.88*	1.43
Control	32	84.69 (12.93)	81.34 (5.39)	82.34 (7.23)	2.61	0.23

Note: A decrease in score on the PKBS–2 is desirable as it suggests a decrease in internalizing behaviors.

* p < .05

Student-Teacher Relationship

A repeated-measures ANOVA was conducted using the Total *STRS* score, as well as the individual subscales of Conflict, Closeness, and Dependency. A desired change in scores would be manifest by a decrease in Conflict, an increase in Closeness, a decrease in Dependency, and an increase in the Total score. There was a significant interaction between time and group on the measure of Conflict ($F(2, 81) = 6.38$, $p < .01$), with the two treatment conditions showing a decrease in Conflict and the control group showing an increase in Conflict according to teacher report. While there was no significant interaction between time and group on the measure of Closeness ($F(2, 81) = 1.91$, $p > .05$), there was a main effect for group ($F(2, 81) = 23.61$, $p < .01$) as each group showed improvement in Closeness according to teacher report. There was a significant interaction between time and group on the measure of Dependency ($F(2, 81) = 5.36$, $p < .05$). The treatment group increased in Dependency while the other two conditions had a similar decrease in Dependency. When looking at the Total score, there was a significant interaction between time and group ($F(2, 81) = 5.92$, $p < .05$). While all of the experimental conditions improved with student-teacher relationships as indicated with the overall score, there

was a significant improvement in the relationship noted in the treatment plus boosters group (see

Table 3 and Appendix H).

Table 3
Means and ANOVA results for teacher ratings on the STRS

Measures	n	Pretest *M* (SD)	Posttest *M* (SD)	*F*	*d*
Total Score					
Treatment	24	40.67 (32.62)	46.54 (31.82)	1.68	0.19
Treatment + Boosters	28	49.82 (19.04)	70.18 (15.42)	43.88*	1.20
Control	32	83.75 (22.49)	87.47 (16.54)	1.02	0.19
Conflict					
Treatment	24	58.92 (28.84)	47.12 (27.46)	5.44*	0.43
Treatment + Boosters	28	36.29 (18.53)	26.07 (11.73)	10.60*	0.67
Control	32	16.47 (17.80)	20.53 (22.22)	2.34	0.2
Closeness					
Treatment	24	47.92 (34.10)	55.62 (32.88)	1.78	0.23
Treatment + Boosters	28	18.18 (11.39)	35.14 (14.09)	49.17*	1.35
Control	32	65.34 (29.22)	72.81 (27.29)	4.54*	0.27
Dependency					
Treatment	24	59.92 (31.25)	72.42 (28.70)	6.95*	0.43
Treatment + Boosters	28	10.89 (9.15)	8.46 (7.89)	2.00	0.29
Control	32	13.81 (22.87)	8.53 (15.44)	1.30	0.27

Note: An increase of the Total score is desirable as it suggests an increase in positive views of the student-teacher relationship (STR). A decrease of the Conflict score suggests a decrease in conflict in the STR. An increase of the Closeness score suggests an increase in the perception of closeness between the student and the teacher. A decrease of the Dependency score is desirable as it suggests a decrease in the perception of over-dependence in the STR.

* p < .05

Treatment Fidelity

Treatment fidelity results indicated that the preschool educators implemented the core lesson components 95% of the time. In examining all of the objectives as outlined in the manual, teachers either fully (54.5%) or partially (35.5%) implemented lesson components 90% of the time. This is indicative of good treatment fidelity. On average, the preschool teachers did not implement 10% of the objectives as indicated in the curriculum manual. The objectives most often omitted included the review of the previous lesson, introduction to the new lesson, and conclusion of the lesson.

The research assistants noted the number of opportunities to respond (averaged total per lesson, $M = 25.34$, $SD = 10.90$) and the number of student responses (averaged total per lesson, $M = 24.4$, $SD = 10.90$). On average, teachers praised their students 6.32 ($SD = 5.23$) times per lesson and reprimanded them 5.30 ($SD = 4.08$) times per lesson. These numbers are comparable to the behaviors observed in the study by Whitcomb (2009).

Social Validity

In assessing social validity, teachers agreed (indicating *agreed* or *strongly agreed* on the rating scale) with 64% of the items on the questionnaire and felt neutral (when faced with the choices of *neutral*, *disagree*, or *strongly disagree* on the rating scale) with 36% of the items. No questions had responses in the negative; rather they were rated as neutral (see Appendix I). The items were compiled into three categories that evaluated the program's goals, procedures, and outcomes. Teachers responded to these questions using a five-point scale, and the ratings were averaged. The goals of the program received an acceptability rating of 4.2 ($SD = 0.40$). The procedures received a score of 3.68 ($SD = 0.44$), and the outcomes received a score of 3.59 ($SD = 0.29$).

Qualitative results indicate that both teachers felt that the lessons were long for their students ($M = 20$ minutes), and they were not sure how well their students liked the curriculum. One treatment teacher noted that her students did seem to get along better with their peers and were able to use words more than negative actions. The other treatment teacher noted that her afternoon class understood the concepts better than her morning class. Both teachers reported that they would recommend the use of *Strong Start Pre-K* to other teachers. It is important to note that the data from this validity scale only comes from the two treatment classroom teachers.

Discussion

While there are many prevention programs that focus on externalizing behaviors and social skills (Greenberg et al., 2001), not many programs specifically target internalizing behaviors like the *Strong Kids* curricula do. This study is commensurate with previous studies of the *Strong Kids* curricula (see Caldarella et al., 2009; Kramer et al., 2010; Whitcomb, 2009) in establishing a decrease in internalizing behaviors among younger students in a Title I preschool. These are positive findings as researchers have shown that a decrease in internalizing behaviors can improve academic performance and decrease emotional and behavioral problems (Durlak et al., 2011).

The implications of this research are addressed according to each research question while limitations specific to a particular research area are discussed in the corresponding sections. Discussions on additional limitations, directions for future research, and implications for this study are also included.

Significance of Identified Treatment Effects

Improved social and emotional competence. Teachers across all conditions, even the classroom that did not receive the curriculum, noted an increase in emotional regulation among their students. The researchers hypothesize that this can be attributed to students maturing and learning to navigate peer relationships in a social environment. The results from the data may suggest that emotional regulation occurs through students' experiences in the classroom with their teachers and peers rather than strictly from a curriculum. While the curriculum alone did not seem to have a significant effect on the increase of emotional regulation, improvements in emotional regulation were noted and further research may be conducted in this area to investigate

the reason for the increase of emotional regulation across experimental conditions. It is possible that more change would be noted in a larger sample.

In this study, internalizing behaviors decreased in preschool students after the implementation of the 10 *Strong Start Pre-K* lessons, as noted by their teachers. Similar decreases in internalizing behaviors have been found in previous studies of *Strong Start K–2* (see Caldarella et al., 2009; Kramer et al., 2010; Whitcomb, 2009). While a favorable decrease in internalizing behaviors was found in both treatment conditions, more improvement was shown in the treatment group that received the booster lessons. This suggests that additional reinforcement of the curriculum may be beneficial to students and their mental health.

A limitation to the social and emotional competence scales was the limited number of raters of change. Parental input was not obtained so it is uncertain if the curriculum generalized to the point where parents would have noted improvements at home. It would have been informative to obtain student feedback on their perceptions of the change within themselves, specifically looking to see if students noted an increase in emotional regulation and a decrease in depression, anxiety, and worry.

Fortified SEL skills with booster lessons. At the onset of this study, the researchers decided it would be beneficial to assess the additional booster lessons included in the curriculum manual as they had yet to be empirically evaluated. The booster lessons fit well into the design of the study, so they were evaluated. It was hypothesized that there would be greater improvements in the group that received the two additional booster lessons as the SEL skills and concepts could be reinforced in a structured manner. To reiterate the findings above, more improvement in social and emotional competence was noted in the treatment group that received the two additional booster lessons than in the treatment group without boosters or the control group. This

suggests that teachers should take the additional time to teach the booster lessons at the conclusion of the 10 lesson curriculum.

Enhanced student-teacher relationships. Student-teacher relationships improved overall throughout all conditions. This is to be desired as educators and students build trust with each other and deepen their relationships over the course of the school year. Educators strive to develop positive relationships with their students as the school year progresses because they realize the importance of building positive relationships. While the overall perception of the relationships improved in all conditions, the scores of the classroom that received the curriculum plus booster lessons indicated the most noticeable change. In addition to the overall relationship, the level of conflict decreased significantly in both of the treatment classrooms, particularly in the treatment classroom that continued to teach the booster lessons, while the level of conflict increased in the control classroom. The level of dependency of students does not seem to have been affected by the curriculum, nor does the level of closeness as reported by the teachers. The level of closeness between teachers and students appeared to improve over time in all conditions, including controls.

These results are promising because much research has been conducted on the importance of positive connections with adult figures in the life of children (Hamre & Pianta, 2001). Research concludes that as children develop close, caring relationships with teachers that are void of major conflict, students are able to work toward regulating their emotions in a safe environment. In this safe environment, they are able to achieve more academically and socially (see CASEL, 2010).

In this study, it was unclear if student-teacher relationships improved because *Strong Start Pre-K* was taught or if there was a decrease in internalizing behaviors and an increase in

emotional regulation due to an improvement in student-teacher relationships. While both are possibilities, the researchers feel that the data are indicative of change as a result of the implementation of *Strong Start Pre-K* and not due to confounding factors. A study to further evaluate the effects of the student-teacher relationship is suggested to see if *Strong Start Pre-K* may influence the student-teacher relationship which then influences students' internalizing behaviors. Future studies may also look at the correlation between decreased conflict and the teachers' perceptions of students' behaviors and emotional regulation.

Reflections on Program Implementation

      Impressions of treatment fidelity. The results were favorable in the area of treatment fidelity as it was feasible for the teachers to teach the curriculum as intended by the curriculum developers. In a meta-analysis of SEL curricula, Durlak et al. (2011) found similar results as teachers are able to teach SEL curricula with fidelity. Observations indicated that, with little prior training, teachers were able to implement the core components of *Strong Start* in their preschool classrooms similar to the outline provided in the curriculum manual. For unknown reasons, the teachers tended to skip the review of the previous lessons and the solid conclusion of the present lesson. More emphasis needed to be given to the review of previous lessons so the key concepts were reinforced in the minds of the students.

      An unavoidable limitation in this area notes the differences between individuals. While both treatment classrooms had comparable treatment fidelity, there may have been different nuances in the delivery of lessons and varied emphasis on particular points in the lessons due to different teaching styles of the teachers. Both teachers had similar teaching experience and credentials, but each had a distinct personality and teaching style. A study with a greater number of teachers would minimize this concern.

During each lesson, there was, at minimum, one research assistant to record treatment fidelity. In this study, this information was not immediately shared with the teacher, nor was feedback on the lesson suggested. This was purposeful, as teachers often do not have the luxury of having an observer provide feedback on their lessons. To increase the outcomes of the curriculum and to decrease possible frustration from the educators, future studies may consider providing feedback after lessons while the teacher is still learning the curriculum.

While research assistants noted the opportunities to respond, the number of student responses, and the amount of praise and reprimands given, researchers did not note how often teachers reinforced the SEL skills in their daily routine. In the curriculum manual, it gives suggestions for teachers to integrate the skills into their classrooms, and the teachers reported being able to reinforce the skills during other classroom activities. However, integration of the SEL concepts during class was not assessed in this study, so it is unknown how often the skills were reinforced. It is hypothesized that a greater amount of positive change would be noted as teachers encouraged their students to generalize their skills and use them in other aspects of their routines, rather than solely during lesson time.

Value of social validity. Results indicated that teachers noted improvements in their students' behaviors, the students' ability to regulate emotions, and the teachers' relationships with their students following implementation of the curriculum. This may suggest that the students were beginning to develop protective factors that would help them effectively deal with trials and challenges that they would encounter at school and at home. While the social validity measure had a variety of questions about the curriculum's goals, procedures, and outcomes, as well as open-ended questions, there was not an interview aspect of the measure. In future studies,

it may be beneficial to talk to the teachers about their perceptions of the curriculum, as teachers are more willing to talk about their concerns than to take the time to write them down.

The teachers reported being confident in their ability to implement the curriculum and that "*Strong Start* was a good way to help prevent students' social and emotional problems." While the teachers generally liked the curriculum, they expressed that some of the lessons were too long for their students. The teachers were uncertain as to how well their students liked the curriculum, but they did not perceive that the students were excited for the lessons. Teachers reported that while they feel their students learned important skills from *Strong Start,* they were uncertain as to how often the skills were used and how well the children generalized the skills they learned to other school situations. Overall, the teachers were pleased with *Strong Start Pre-K* and would be willing to teach the curriculum again.

While teacher social validity data were gathered, additional studies that obtained validation of the curriculum from the students would be informative. As the population of students is quite young, a partially structured interview-style evaluation would be a preferred method to assess the validity of *Strong Start Pre-K.* The interview format could be modified from the assessment form used by Whitcomb (2009). While informative, the interview process would have been too time intensive for this study, so the researchers chose to focus on teacher validation and perceived change in students' emotional regulation and internalizing behaviors.

Limitations and Directions for Future Research

Researchers agreed that there were valuable contributions to the field of social and emotional learning from this study, despite some limitations. One limitation is inherent in most studies conducted in public education: nonrandomized treatment assignments, as researchers could not alter the classroom placement of the students nor randomize which students received

the curriculum and which did not. Another limitation was the small sample size. The study had

two treatment condition teachers with two classrooms each and two control teachers with one

classroom each. While the number of student participants was adequate for this study, the data

reflecting change came from two to four teachers. Third, as these teachers were the service

providers and the raters of change, there may have been some social desirability in their

responses and bias in the assessment results to demonstrate success in teaching the intervention.

In addition, with only a few raters, there is a possibility that scores on the dependent measures

may be varied due to different characteristics of each teacher rather than the effects of the

curriculum.

Future research should include more teachers in the study and more measures of change

from either parental rating scales or direct observations of student behavior. Future studies could

evaluate the effectiveness of the home bulletin and parental involvement in reinforcing the SEL

skills at home, specifically emphasizing ways to integrate SEL within families and home

contexts (K. W. Merrell, personal communication, June 11, 2011). Additionally, more research is

needed on the lasting effects of *Strong Start Pre-K* across grades, specifically in the areas of

prevention and reduction of internalizing behaviors across time. In a future study, it would be

advantageous to have a larger study group with more teachers implementing the curriculum.

Further research is needed with larger sample sizes and measures of change across

different settings (e.g., home, classroom, and playground) to check for generalization across

settings rather than solely based on teacher report of student behavior in the classroom. In

addition, further examination of the change of teachers' perceptions and the impact on student

behavior is suggested. Additional research could include evaluating the implementation of SEL

skills throughout the daily classroom routine by the teachers (including educator training and

consultation for infusion of SEL skills), the value of the home bulletin and parental involvement, and longitudinal studies across grade levels.

Conclusion

It is important to teach social and emotional skills to children so they can decrease internalizing behaviors, increase emotional regulation, and have a closer, less conflicted relationship with adults in their lives, particularly in the school setting. These assets can help children become more resilient and experience social and academic success. In sum, teachers' perceptions of their students may be influenced by their students' improvement in social and emotional learning.

This study was one of the first to evaluate *Strong Start Pre-K*. It yielded promising results as to how to prevent and reduce internalizing behaviors in preschool students. Teachers found that this curriculum had value in teaching SEL skills and was feasible to implement with little additional resources. This curriculum is useful and beneficial to use in preschool classrooms. It is noted that additional research can be done to strengthen and increase the benefits of the curriculum. The findings in this study contribute to the body of research for *Strong Kids* and SEL as a whole.

Educators and those who read this article should realize the importance of addressing internalizing behaviors in young children (e.g., feelings of sadness, withdrawal, isolation, difficulty coping with small problems). Internalizing behaviors are less noticeable in the classroom as they are not typically disruptive, but they can still lead to academic, emotional, and behavioral problems for the individual child. Strong Start Pre-K is a simple, yet efficient, way to address internalizing behavioral concerns. The lessons are highly structured and partially scripted, so little training is required to teach the lessons effectively. Research, including that

documented in this article, has shown that as internalizing problems are addressed, a child's

mental health is more stable, academic performance increases and behavioral problems decrease.

Although educators have demanding schedules, the benefits of implementing this curriculum are

invaluable to the social and emotional learning aspect of a child's education.

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Appendix A: *Strong Start Pre-K* Lessons

Lesson One: The Feelings Exercise Group

  Lesson One is an introduction to the *Strong Start Pre-K* curriculum. The purpose, goals, and practices are overviewed as well as the big ideas of the curriculum and individual lessons. Important terms are introduced. Students are made aware of the importance of the curriculum so they understand why appropriate behaviors are fundamental (e.g., showing good listening, keeping a calm body, being a friend, confidentiality of shared information).

Lesson Two: Understanding Your Feelings Part One

  Lesson Two begins to improve students' emotions vocabulary, awareness, and resiliency skills. Students learn to identify six basic emotions (happy, sad, afraid, angry, surprised, disgusted) and how they make them feel inside ("good" or "not good"). Students learn to recognize which situations might cause them to feel a certain way.

Lesson Three: Understanding Your Feelings Part Two

  Lesson Three extends the talk about the basic emotions to include how one might express different feelings (positive and negative feelings) in an appropriate manner. Students learn that while it is okay to experience all feelings, there are appropriate and inappropriate ways of expressing feelings. Students learn "okay" and "not okay" ways of expressing feelings.

Lesson Four: When You're Angry

  In Lesson Four, students learn that all people experience the emotion called anger. Students learn about anger and signs, symptoms, and synonyms of the word. Students learn the physical signs and manifestations of anger in their bodies, to identify common situations that might lead people to feel angry, and to determine if responses to anger are "ways that help" or "ways that hurt." Students learn the "Stop, Count, In, Out" strategy to help them get in control of their anger.

Lesson Five: When You're Happy

  Lesson Five helps children connect their feelings of happiness to their thought processes and behaviors as they learn how to understand and express happiness (a positive emotion). Students learn to identify common physical sensations associated with feeling happy, identify actions and situations that are more likely to lead to feeling happy, and develop synonyms for the word happy. Students learn "Happy Talk," which can help them cope with adverse situations in a positive way rather than succumbing to negative feelings (e.g., sadness or anger).

Lesson Six: When You're Worried

Lesson Six is designed to help students learn appropriate techniques to manage stress, anxiety, and other worries by teaching them to apply specific behavioral, affective, and cognitive skills to situations that might cause them worry or anxiety. Students learn about the signs, symptoms, situations, and synonyms of feeling worried or anxious. Students practice the "Stop, Count, In, Out" and "Happy Talk" strategies to help them cope.

Lesson Seven: Understanding Other People's Feelings

Lesson Seven is a basic form of empathy training. Students learn common physical clues to help them understand how another person might be feeling. Students are given a chance to practice this skill through fun activities.

Lesson Eight: Being a Good Friend

In Lesson Eight, students are taught basic interpersonal communication skills (e.g., using a nice voice, being a good listener, making appropriate eye contact, using appropriate body language) and are given opportunities to practice them in realistic situations.

Lesson Nine: Solving People Problems

Lesson Nine promotes awareness of useful strategies to resolve conflict between and among peers. Students learn to define and describe situations in which conflicts with peers might commonly occur. Students learn to apply the "Stop, Count, In, Out" and "Happy Talk" strategies to peer problems. Practice situations are included so students can practice thinking about how to fix peer problems and feel better.

Lesson Ten: Finishing UP!

Lesson Ten celebrates the accomplishments that have been made through the involvement with the *Strong Start Pre-K* curriculum and concludes on an upbeat note. Students review the key points and terms from the previous lessons (e.g., identifying "okay" and "not okay" feelings, defining "ways that help" and "ways that hurt," using "Happy Talk" and the "Stop, Count, In, Out" strategies) to ensure competency.

Strong Start Booster Lesson One

Booster Lesson One reviews lessons one through six to help review, reteach, and reinforce the main concepts that were taught.

Strong Start Booster Lesson Two

Booster Lesson Two reviews lessons seven through nine to help review, reteach, and reinforce the main concepts that were taught.

Appendix B: Dependent Measures

Preschool Behavioral and Emotional Rating Scale (Pre-BERS)

Child's Name:	Age: _____ years _____ months	Sex: ___ Male ____ Female
Rated By:	Relationship to Child:	Date:

The *Preschool Behavioral and Emotional Rating Scale* (PreBERS) contains a series of statements that are used to rate a preschool child's behavior in a positive way. Read each statement and circle the number that corresponds to the rating that best describes the child's behavior. If the statement is very much like the child, circle the 3; if the statement is like the child, circle the 2; if the statement is not much like the child, circle the 1; if the statement is not at all like the child, circle the 0. In making your rating, it is important that you consider this child's behavior in relation to other preschool children of similar age and gender. Rate each statement to the best of your knowledge of the child.

1.	Controls anger toward others	3	2	1	0
2.	Expresses remorse for behavior that hurts others	3	2	1	0
3.	Shows concern for the feelings of others	3	2	1	0
4.	Reacts to disappointment calmly	3	2	1	0
5.	Handles frustration with challenging tasks	3	2	1	0
6.	Takes turns in play situations	3	2	1	0
7.	Accepts responsibility for own actions	3	2	1	0
8.	Loses a game gracefully	3	2	1	0
9.	Accepts "no" for an answer	3	2	1	0
10.	Respects the rights of others	3	2	1	0
11.	Shares with others	3	2	1	0
12.	Apologizes to others when wrong	3	2	1	0
13.	Is kind toward others	3	2	1	0

Preschool Kindergarten Behavior Scales–2nd Edition (PKBS–2)

Please rate the child on each of the items on this rating form. Ratings should be based on your observations of this child's behavior. The rating points after each item appear in the following format:

Never	Rarely	Sometimes	Often
0	1	2	3

Never   If the child does not exhibit a specified behavior, or if you have not had an opportunity to observe it, circle 0, which indicates *Never.*

Rarely   If the child exhibits a specified behavior or characteristic, but only very infrequently, circle 1, which indicates *Rarely.*

Sometimes   If the child occasionally exhibits a specified behavior or characteristic, circle 2, which indicates *Sometimes.*

Often   If the child frequently exhibits a specified behavior or characteristic, circle 3, which indicates *Often.*

Please complete all items and do not circle between numbers.

1.	Becomes sick when upset or afraid	0	1	2	3
2.	Does not respond to affection from others	0	1	2	3
3.	Clings to parent or caregiver	0	1	2	3
4.	Is anxious or tense	0	1	2	3
5.	Avoids playing with other children	0	1	2	3
6.	Has problems making friends	0	1	2	3
7.	Is afraid or fearful	0	1	2	3
8.	Complains of aches, pain, or sickness	0	1	2	3
9.	Resists going to preschool or day care	0	1	2	3
10.	Is difficult to comfort when upset	0	1	2	3
11.	Withdraws from the company of others	0	1	2	3
12.	Seems unhappy or depressed	0	1	2	3
13.	Acts younger than his or her age	0	1	2	3
14.	Is overly sensitive to criticism or scolding	0	1	2	3
15.	Gets taken advantage of by other children	0	1	2	3

Use the following space to provide any additional information about this child that you believe would be useful for understanding his or her behavior:

Student-Teacher Relationship Scale (STRS)

STRS Student-Teacher Relationship Scale Response Form

Teacher's Name: _____   Gender: M   F   Ethnicity: _____   Date: ___/___/___

Child's Name:_____   Grade: ___   Gender: M   F   Ethnicity: _____   Age:_____

Please reflect on the degree to which each of the following statements currently applies to your relationship with this child. Using the point scale below, CIRCLE the appropriate number for each item. If you need to change your answer, DO NOT ERASE! Make an X through the incorrect answer and circle the correct answer.

1	2	3	4	5
Definitely does not apply	**Does not really apply**	**Neutral, not sure**	**Applies somewhat**	**Definitely applies**

1. I share an affectionate, warm relationship with this child.	1	2	3	4	5
2. This child and I always seem to be struggling with each other.	1	2	3	4	5
3. If upset, this child will seek comfort from me.	1	2	3	4	5
4. This child is uncomfortable with physical affection or touch from me.	1	2	3	4	5
5. This child values his/her relationship with me.	1	2	3	4	5
6. This child appears hurt or embarrassed when I correct him/her.	1	2	3	4	5
7. When I praise this child, he/she beams with pride.	1	2	3	4	5
8. This child reacts strongly to separation from me.	1	2	3	4	5
9. This child spontaneously shares information about himself/herself.	1	2	3	4	5
10. This child is overly dependent on me.	1	2	3	4	5
11. This child easily becomes angry with me.	1	2	3	4	5
12. This child tries to please me.	1	2	3	4	5
13. This child feels that I treat him/her unfairly.	1	2	3	4	5
14. This child asks for my help when he/she really does not need help.	1	2	3	4	5
15. It is easy to be in tune with what this child is feeling.	1	2	3	4	5
16. This child sees me as a source of punishment and criticism.	1	2	3	4	5
17. This child expresses hurt or jealousy when I spend time with other children.	1	2	3	4	5
18. This child remains angry or is resistant after being disciplined.	1	2	3	4	5
19. When this child is misbehaving, he/she responds well to my look or tone of voice.	1	2	3	4	5
20. Dealing with this child drains my energy.	1	2	3	4	5
21. I've noticed this child copying my behavior or ways of doing things.	1	2	3	4	5
22. When this child is in a bad mood, I know we're in for a long and difficult day.	1	2	3	4	5
23. This child's feelings toward me can be unpredictable or can change suddenly.	1	2	3	4	5
24. Despite my best efforts, I'm uncomfortable with how this child and I get along.	1	2	3	4	5
25. This child whines or cries when he/she wants something from me.	1	2	3	4	5
26. This child is sneaky or manipulative with me.	1	2	3	4	5
27. This child openly shares his/her feelings and experiences with me.	1	2	3	4	5
28. My interactions with this child make me feel effective and confident.	1	2	3	4	5

Appendix C: Social Validity

Strong Start Pre-K Social Validity Questionnaire

Please rate the acceptability of the goals and outcomes.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Students' social and emotional concerns are great enough to warrant use of a curriculum such as *Strong Start*.	1	2	3	4	5
2. A student's level of social and emotional competence is important to their academic success.	1	2	3	4	5
3. It is important that social and emotional knowledge and skills be taught in a school setting.	1	2	3	4	5
4. It is feasible for a regular education teacher to teach social and emotional knowledge and skills.	1	2	3	4	5
5. I feel that I have the necessary skills/training to help students with social and emotional difficulties.	1	2	3	4	5
6. I am confident in my ability to implement *Strong Start*.	1	2	3	4	5
7. I was able to reinforce the skills taught in the *Strong Start* lessons during other classroom activities.	1	2	3	4	5
8. The time taken to deliver the weekly lessons was acceptable.	1	2	3	4	5
9. The length of lessons was appropriate for preschool students.	1	2	3	4	5
10. The materials provided (manual, pictures, handouts) were sufficient to teach the curriculum.	1	2	3	4	5
11. The materials needed for *Strong Start* were easy to access.	1	2	3	4	5
12. I felt that the curriculum manual alone provided sufficient training to teach the lessons.	1	2	3	4	5
13. The preparation time required to teach the lessons was acceptable.	1	2	3	4	5
14. Students demonstrated a transfer of knowledge and skills from the lessons to other school situations.	1	2	3	4	5
15. I was satisfied with the social and emotional knowledge and skills demonstrated by my students	1	2	3	4	5

during the course of the curriculum.					
16. The teaching procedure of the program was consistent with my regular teaching procedures.	1	2	3	4	5
17. *Strong Start* was a good way to help prevent students' social and emotional problems.	1	2	3	4	5
18. I feel my students learned important skills from *Strong Start*.	1	2	3	4	5
19. I feel my students use the skills learned from *Strong Start*.	1	2	3	4	5
20. My students liked *Strong Start*.	1	2	3	4	5
21. It was reasonable for me to teach the curriculum as it was designed.	1	2	3	4	5
22. I found *Strong Start* easy to teach.	1	2	3	4	5
23. Students were interested in or excited for the lessons, and showed active participation in them.	1	2	3	4	5
24. Most teachers would find *Strong Start* suitable for improving social and emotional competence.	1	2	3	4	5
25. I would recommend the use of *Strong Start* to other teachers.	1	2	3	4	5
26. I would like to implement *Strong Start* again.	1	2	3	4	5
27. I enjoyed teaching *Strong Start*.	1	2	3	4	5

What problems, if any, did you have with the implementation of the curriculum?

_____
_____
_____
_____

Would you change the way the lessons are taught? How?

_____
_____
_____
_____

What changes would you make to the curriculum content?

_____
_____
_____
_____

What changes did you observe in your students?

_____
_____
_____
_____

Additional comments:

_____
_____
_____
_____

Appendix D: Treatment Fidelity

Implementation Checklists

Lesson 1: The Feelings Exercise Group

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	Tally of total reprimands given

- **I. Introduction**
  - **Minutes:**_____
    - Explains to students that new curriculum will be started.
    - Gives examples of what will be taught and importance to social and emotional health.
    - Introduction to "Henry."

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:**_____
    - Characters' feelings and behaviors identified.
    - Questions used to guide discussion.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Defining Behavior Expectations**
  - **Minutes:**_____
    - Lists three rules for the group.
    - Discusses importance of each expectation.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **IV. Discussion of Confidentiality**
  - **Minutes:**_____
    - Shares that students can choose to share personal stories or not.
    - Teaches students to tell stories without naming names.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **V. Introduction to the Topics Covered**
  - **Minutes:**_____
    - Supplement 1.1 is used to introduce topics.
    - Teacher orally reviews topics.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **VI. Closure**
  - **Minutes:**_____
    - Teacher reviews with students that they will be learning about life skills.
    - Teacher reminds students about class rules.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented:_____
Percentage of Components Fully Implemented: _____

Lesson 2: Understanding Your Feelings, Part I

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	**Tally of total reprimands given**

- **I. Review**
  - **Minutes:**_____
    - Refers to previous lesson describing the Feelings Exercise Group.
    - Questions students regarding what has been learned.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Introduction**
  - **Minutes:**_____
    - Communicates that students will talk about naming feelings.
    - Communicates that there are feelings that make us feel good or not good on the inside.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:** _____
    - Characters' feelings and behaviors identified.
    - Uses relevant questions to guide discussion.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **IV. Feelings Identification**
  - **Minutes:**_____
    - Communicates that we all have feelings wherever we go.
    - Generates a list of feelings.
    - Identifies feelings as those that make us feel **good** and **not good**.
    - Engages children in practice activity (thumbs up/thumbs down).
    - Describes that it is hard to determine whether some feelings make us feel **good** or **not good** on the inside.
    - Encourages students to pay attention to feelings in their bodies, expressions on their faces, and thoughts in their minds that help them name feelings.
    - Leads students in singing *If You're Happy and You Know It.*

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **V. Closure**
  - **Minutes:**_____
    - Teacher reviews with students that naming feelings is important.
    - Teacher reminds students that we have feelings everywhere we go.
    - Teacher reviews that some feelings make us feel **good** and others make us feel **not good**.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **Observation finish time: _____**

- **Percentage of Components Not Implemented: _____**
- **Percentage of Components Partially Implemented: _____**
- **Percentage of Components Fully Implemented: _____**

Lesson 3: Understanding Your Feelings, Part II

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	Tally of total reprimands given

- **I. Review**
  - **Minutes:** _____
    - Reviews previous topics/main ideas.
    - Prompts students to remember six basic feelings.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Introduction**
  - **Minutes:** _____
    - Communicates that students will talk more about naming feelings.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:** _____
    - Characters' feelings and behaviors identified.
    - Uses relevant questions to guide discussion.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **IV. Understanding Basic Emotions**
  - **Minutes:** _____
    - Revisits *If You're Happy and You Know It*.
    - Shows feeling pictures and asks students to give examples of when they have had that feeling.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **V. Ways of Showing Feelings**
  - **Minutes:** _____
    - Conveys that everyone has feelings and that it is okay to have any feeling.
    - Communicates that we can have different feelings at different times.
    - Communicates that it is important to talk about feelings.
    - Conveys that there are okay and not okay ways to show feelings.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **VI. Okay and Not Okay Ways of Showing Feelings**
  - **Minutes:** _____
    - Uses example situations to demonstrate okay and not okay ways of showing feelings.
    - Engages children in practice activity (stand up up/sit down).

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **VII. Closure**
  - **Minutes:** _____
    - Teacher reviews that there are different ways to show our feelings, **okay** and **not okay**.
    - Teacher reminds that other people may not feel the same way as they do.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

Lesson 4: When You're Angry

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	**Tally of total reprimands given**

- **I. Review**
  - o **Minutes:**_____
    - ▪ Refers to previous lesson **Understanding Your Feelings.**
    - ▪ Refers to feelings that make us feel **good** and **not good** on the inside.
    - ▪ Refers to **Okay** and **Not Okay** ways of showing feelings.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **II. Introduction**
  - o **Minutes:**_____
    - ▪ Communicates that students will talk about anger.
    - ▪ Communicates that students will learn about what anger looks like and feels like.
    - ▪ Communicates that students will learn about when anger might occur and how they can deal with their anger.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **III. Read a Book from Literature List**
  - o **Minutes**: _____
  - o **Book Title/Author:** _____
    - ▪ Characters' feelings and behaviors identified.
    - ▪ Uses relevant questions to guide discussion about anger.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **IV. Show and Define Anger**
  - o **Minutes:** _____
    - ▪ Shows pictures or gives examples of what angry faces look like.
    - ▪ Encourages students to share what their bodies feel like when they are angry.
    - ▪ Encourages children to share times when they experienced anger.
    - ▪ Brainstorms synonyms for anger.

- o Circle One: Not Implemented   Partially Implemented   Fully Implemented
- o Notes: _____

- **V. Ways of Handling Anger**
  - o **Minutes:**_____
    - Introduces **ways that help** and **ways that hurt** in handling anger.
    - Acts out a scenario where Henry gets angry and ask the students to identify his feelings and predict what he might do.
    - Uses an overhead or visual of Supplements 4.4–4.7 to show the **Stop, Count, In, Out** strategy.
    - Provides multiple examples (**ways that help**) and nonexamples (**ways that hurt**) for handling anger.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **VI. Closure**
  - o **Minutes:**_____
    - Teacher reviews with students that everyone feels angry sometimes.
    - Teacher reminds students to use **ways that help** in handling anger.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

Lesson 5: When You're Happy

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	**Tally of total reprimands given**

- **I. Review**
  - **Minutes:**_____
    - Refers to previous lesson **Feeling Angry.**
    - Reviews **ways that help** and **ways that hurt** in dealing with anger.
    - Refers to steps of **Stop, Count, In, Out** strategy.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Introduction**
  - **Minutes:**_____
    - Communicates that students will talk about feeling happy.
    - Communicates that students will learn what their minds and bodies feel like when happy.
    - Communicates that students will learn about how to make themselves feel happy when mad or sad.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:**_____
    - Characters' feelings and behaviors identified.
    - Uses relevant questions to guide discussion about feeling happy.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **IV. Show and Define Happiness**
  - **Minutes:** _____
    - Uses Supplements 5.1 and 5.2 or gives examples of what happy faces look like.
    - Encourages students to share what their bodies feel like when they are happy.
    - Encourages children to share times when they felt happy.
    - Have students generate list of words that make them think of happiness.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **V. Happy Talk**
  - **Minutes:** _____
    - Introduces concept of **Happy Talk**
    - Explains to students that positive thinking can make them feel better when they experience not good feelings. Provides examples.
    - Describes how in **Happy Talk** children can first use **Stop, Count, In, Out** and then remind themselves that everything is going to be okay.
    - Models an example and a nonexample of using **Happy Talk** (uses Henry to role play)

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **VI. Closure**
  - **Minutes:** _____
    - Teacher reviews with students that everyone feels happy sometimes.
    - Teacher reminds students to use **Happy Talk** when they are having not good feelings.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **Observation finish time: _____**

- **Percentage of Components Not Implemented: _____**
- **Percentage of Components Partially Implemented:_____**
- **Percentage of Components Fully Implemented: _____**

Lesson 6: When You're Worried

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	Tally of total reprimands given

- **I. Review**
  - **Minutes:**_____
    - Refers to previous lesson **When You're Happy.**
    - Reviews **Happy Talk.**

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Introduction**
  - **Minutes:**_____
    - Communicates that students will talk about feeling worried.
    - Communicates that everyone feels worried sometimes.
    - Communicates that students will learn about how to deal with worries.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:** _____
    - Identifies characters' feelings and behaviors.
    - Uses relevant questions to guide discussion about feeling worried.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **IV. Show and Define Worry**
  - **Minutes:**_____
    - Shows pictures or gives examples of what worried faces look like.
    - Encourages students to share what their bodies feel like when they are worried.
    - Encourages children to share times when they experienced worry.
    - Brainstorms synonyms for worry.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **V. Letting Go of Worries**
  - **Minutes:** _____
    - Shows students Supplement 6.2 and talks about how **Happy Talk** and **Stop, Count, In, Out** strategies help us to let go of worries.
    - Models how to let go of worries with Henry

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **VI. Closure**
  - **Minutes:** _____
    - Teacher reviews with students that everyone feels worried sometimes.
    - Teacher reminds students to use **Happy Talk** and **Stop, Count, In, Out** strategies to let go of worries.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

Lesson 7: Understanding Other People's Feelings

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	**Tally of total reprimands given**

- **I. Review**
  - **Minutes:** _____
    - Refers to previous lesson **When You're Worried.**
    - Reviews the **Stop, Count, In, Out** and **Happy Talk** strategies.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Introduction**
  - **Minutes:**_____
    - Communicates that students will talk about understanding how other people feel.
    - Communicates that students will learn to notice what other people's bodies and faces look like when they are feeling different ways.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:** _____
    - Identifies characters' feelings and behaviors.
    - Notes how different characters have different feelings in same situation.
    - Uses relevant questions to guide discussion.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **IV. Name and Define Skill/Modeling**
  - **Minutes:** _____
    - Explains how to tell other's feelings by looking for visual cues of face and body.
    - Shows faces from supplements 7.1-7.6 and identifies visual cues.
    - Models body clues for various emotions and has students describe them.
    - Acts out feelings and has the students guess what they are.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **V. Closure**
  - **Minutes:** _____
    - Reviews ways to tell how others are feeling.
    - Explains how to look for visual cues.
    - Reminds students that others may have different feelings and understanding them helps students to be good friends.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

Lesson 8: Being a Good Friend

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	**Tally of total reprimands given**

- **I. Review**
  - **Minutes:** _____
    - Refers to previous lesson **Understanding Other People's Feelings.**
    - Reviews body clues that tell us how others are feeling

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Introduction**
  - **Minutes:** _____
    - Communicates that students will talk about being good friends.
    - Communicates that students will learn about how to use words, eyes, ears and bodies to help make friends.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:** _____
    - Identifies characters' feelings and behaviors.
    - Uses relevant questions to guide discussion about being a good friend.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **IV. Talking and Listening**
  - **Minutes:** _____
    - Encourages students to use a nice voice (soft and gentle) when talking to friends.
    - Encourages students to use their eyes, ears, and bodies to show that they are listening to friends.
    - Uses Henry to model examples and nonexamples of using a nice voice and being a good listener.
  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **V. Approaching Others and Sharing**
  - **Minutes:**_____
    - Explains how to begin a friendship or activity with friends.
    - Brainstorms list of ways to show others you want to be a friend.
    - Explains that good friends share and work together.
    - Models sharing with Henry.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **VI. Closure**
  - **Minutes:** _____
    - Reviews concepts related to being a good friend (e.g., using nice voices, listening ears, kind words.)
    - Reviews that being a good friend makes it easier to work together and share.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

Lesson 9: Solving People Problems

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	**Tally of total reprimands given**

- **I. Review**
  - o **Minutes:**_____
    - Refers to previous lesson **Being a Good Friend.**
    - Questions students on how to be a friend.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **II. Introduction**
  - o **Minutes:**_____
    - Communicates that everyone has problems.
    - Communicates that when we disagree, we may feel mad or sad.
    - Explains that we will learn to solve problems and make ourselves feel happy.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **III. Read a Book from Literature List**
  - o **Minutes**: _____
  - o **Book Title/Author:** _____
    - Identifies characters' feelings and behaviors.
    - Uses relevant questions to guide discussion about how to solve problems.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **IV. Define types of People Problems**
  - o **Minutes:**_____
    - Explains idea of disagreement or "people problems."
    - Models a problem scenario with Henry.
    - Encourages students to share problems they have had with others.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **V. Ways that Help and Happy Talk**
  - o **Minutes:**_____
    - ▪ Uses Supplement 9.1 to review the idea that **Happy Talk** and **Stop, Count, In, Out** strategies help us feel better when we have a problem.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **VI. Comforting Yourself and Solving Problems**
  - o **Minutes:**_____
    - ▪ Communicates importance of being a friend when brainstorming solutions.
    - ▪ Acts out examples with Henry to deepen understanding of problem solving.

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

- **VII. Closure**
  - o **Minutes:**_____
    - ▪ Teacher reviews with students that everyone has problems sometimes.
    - ▪ Teacher reminds students to use **Happy Talk** and **Stop, Count, In, Out** strategies to solve problems

  - o Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - o Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

Lesson 10: Finishing UP!

Observation start time: _____

Tally of opportunities to respond	Tally of student responses
Tally of total praise statements	**Tally of total reprimands given**

- **I. Introduction**
  - **Minutes:**_____
    - Explains that this is the final lesson and will be a review of previous lessons.
    - Points out that skills learned are vital to social emotional health (healthy on the inside).
    - Questions students on what has been learned.
    - Uses supplement 10.3 picture cues to review topics.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **II. Read a Book from Literature List**
  - **Minutes**: _____
  - **Book Title/Author:** _____
    - Identifies characters' feelings and behaviors.
    - Uses relevant questions to guide discussion.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

- **III. Closure**
  - **Minutes:**_____
    - Quick overview of what has been learned.
    - Encourages students to work hard to remember skills/lessons learned.

  - Circle One: Not Implemented   Partially Implemented   Fully Implemented
  - Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

Appendix E: Consent Form and Letters

Parental Permission for a Minor to Participate in Research
Social and Emotional Learning in Preschool: An Evaluation of the *Strong Start* Curriculum

Dear Parent or Guardian,

Introduction
My name is Leslie Gunter. I am a graduate student in the School Psychology program at Brigham Young University. My mentor, Professor Paul Caldarella, and I are conducting a research study about the knowledge of emotions in social situations such as school. In this study, the students will be taught ten lessons and possibly two booster lessons from *Strong Start Pre-K*: *A Social and Emotional Learning Curriculum* on understanding feelings, how to handle emotions, being a friend, and solving people problems. The purpose of my research study is to better understand if *Strong Start* helps increase children's emotional regulation and decrease behavioral problems. I am inviting your child to take part in the research because he/she is a student in the Provo Preschool Program. Although your child may or may not be assigned to receive the *Strong Start* curriculum, the teachers will rate all children on their emotions and behaviors.

Procedures
- Your child's teacher will complete three forms prior to the instruction of the *Strong Start* curriculum: one to measure emotional regulation, the second to measure internalizing behaviors, and the third to measure student-teacher relationships.
- Your child's teacher will also complete these forms twice at the conclusion of the study.
- Participation is voluntary. If you do not want your child to take part in the study, he or she will not be rated by his or her teacher on the forms mentioned above. If your child is in the treatment group, he/she will receive additional library time while the curriculum is being taught and will not be rated by the teacher.
- Students in the *Strong Start* group will be offered instruction of the curriculum during class twice a week for approximately 25 minutes each time over a period of five weeks.
- If in the treatment group, the instruction of the curriculum will be taught by your child's classroom teacher.
- If you would like to review the content of the curriculum, please contact me (my contact information is located at the end of the document).

Risks
There are minimal risks to your child for participating in this study.

Benefits

There are no direct benefits to your child. The results of this study will help further the validation of the *Strong Start* social and emotional learning curricula in preschool settings.

Confidentiality

The research data will be kept in a secure location and only the researchers will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept on a password-protected computer.

Compensation

There will be no direct compensation to your child for participation in this project.

Participation

Your child's participation in this study is voluntary. You are free to decline to have your child participate in this research study. You may withdraw your child's participation at any point without penalty. Your decision on whether or not to participate in this research study will have no influence on the quality of your child's education. If you choose to not have your child participate in this study, he or she will have extra library time during the instruction of the curriculum.

Questions about the Research

If you have any further questions about the study, please contact me at lesliegunter@live.com, (435) 590-7282 or my mentor, Paul Caldarella, by emailing paul_caldarella@byu.edu or calling (801) 422- 5081. Questions about your child's rights as a study participant or comments or complaints about the study also may be addressed to the IRB Administrator, Brigham Young University, A-285 ASB, Provo, UT 84602; 801-422-1461 or irb@byu.edu.

I have read and understood the above consent and desire, of my own free will, to allow my child, _____, to participate in this study to evaluate the effectiveness of the *Strong Start Pre-K* curriculum.

Child's Name _____

Signature   _____   Date _____
                  Parent

Parental Permission—Spanish
Permiso Parental Para Que un Menor Participe en la Investigación
Aprendizaje Social y Emocional en la Pre-Kinder: Una Evaluación del plan de estudios de
Strong Start

Querido Padre o Guardián,

Introducción

Mi nombre es Leslie Gunter. Yo soy una estudiante graduada en el programa Psicología de Escuela en la Universidad de Brigham Young. Mi mentor, el Profesor Paul Caldarella, y yo están realizando un estudio de investigación sobre el conocimiento de las emociones en situaciones sociales tales como la escuela. En este estudio les serán enseñados diez lecciones a los estudiantes y dos lecciones de refuerzo, de *Strong Start*, un plan de estudios de aprendizaje social y emocional sobre comprensión de sentimientos, cómo lidiar con las emociones, ser un amigo, y resolver problemas con la gente. El propósito de mi investigación es entender mejor si *Strong Start* ayuda a aumentar la regulación emocional de los niños y reducir los problemas de comportamiento. Estoy invitando a su niño(a) a tomar parte en la investigación porque es un estudiante en el programa pre-escolar de Provo. Su hijo(a) puede o no estar asignado a recibir el plan de estudios *Strong Start,* a pesar de que todos los niños serán evaluados por sus maestros en cuanto a sus emociones y comportamientos.

Procedimientos

- El maestro(a) de su hijo(a) completará tres formularios antes de la instrucción del programa *Strong Start*, uno para medir la regulación emocional, el segundo para medir los comportamientos internalizados en su hijo(a), y el tercero para medir las relaciones entre estudiante y maestro.
- El maestro(a) también completará estos formularios dos veces a la conclusión del estudio.
- La participación es voluntaria. Si no quieres que tu hijo(a) participe en el estudio, él o ella no será evaluado por su maestro en las formas señaladas anteriormente. Si en el grupo de tratamiento, él / ella recibirá biblioteca en tiempo adicional, mientras que el currículo que se enseña y no será evaluado por el profesor.
- A los estudiantes en el grupo *Strong Start* se les ofrecerá instrucción del currículo durante la clase, dos veces por semana, aproximadamente 25 minutos cada vez, durante un período de cinco semanas.
- Si en el grupo de tratamiento, la instrucción del currículo será enseñado por el maestro(a) de su hijo(a).
- Si usted desea revisar el contenido del plan de estudios, por favor, póngase en contacto conmigo (mi información de contacto se encuentra al final del documento).

Riesgos

Solo hay riesgos mínimos para su hijo(a) al participar en este estudio.

Beneficios

No hay beneficios directos para su hijo(a). Los resultados de este estudio permitirán avanzar en la validación de los *Strong Start* programas aprendizaje sociales y emocionales de aprendizaje en programas preescolares.

Confidencialidad

Los datos de la investigación se mantendrá en una ubicación segura y sólo los investigadores tendrán acceso a los datos. En la conclusión del estudio, se eliminará toda la información de identificación de los individuos y los datos se mantendrán en una computadora protegido por contraseña.

Compensación

No habrá ninguna compensación directa a su hijo(a) para la participación en este proyecto.

Participación

La participación de su hijo(a) en este estudio es voluntario. Usted está libre a negarse a tener a su hijo(a) participar en este estudio de investigación. Podrá retirar la participación de su hijo(a) en cualquier momento sin penalización. Su decisión de participar, o no, en este estudio de investigación, tendrá ninguna influencia sobre la calidad de la educación de su hijo(a). Si usted decide que su hijo(a) no participe en este estudio, él o ella tendrán el tiempo de biblioteca suplementario durante la instrucción del plan de estudios.

Preguntas Acerca de la Investigación

Si tiene alguna pregunta sobre el estudio, por favor comuníquese conmigo atravez de lesliegunter@live.com, (435) 590-7282 o con mi mentor, Paul Caldarella, por correo electrónico a paul_caldarella@byu.edu o llamando al (801) 422-5081. Preguntas concerniente a de los derechos de su hijo(a) como participante del estudio, comentarios, o quejas sobre el estudio también pueden ser dirigidas al administrador de la IRB, Universidad de Brigham Young, A 285 ASB, Provo, UT 84602; 801-422-1461 o por irb@byu.edu.

He leído y comprendido el consentimiento anterior y deseo, por mi propia voluntad, permitir que mi hijo(a) _____ participe en este estudio para evaluar la eficacia del currículo de estudio de *Strong Start*.

Nombre del Niño(a) _____

Firma _____ Fecha _____

             Padre/Madre/Guardian

Teacher Permission to Participate in Research
Social and Emotional Learning in Preschool: An Evaluation of the *Strong Start* Curriculum

Dear Teacher,

Introduction
My name is Leslie Gunter. I am a graduate student in the School Psychology program at Brigham Young University. My mentor, Professor Paul Caldarella, and I are conducting a research study about preschoolers' knowledge of emotions in social situations such as school. In this study, the students will be taught ten lessons, and two booster lessons, from *Strong Start*, a social and emotional learning curriculum, on understanding feelings, how to handle emotions, being a friend, and solving people problems. The purpose of my research study is to better understand if *Strong Start* helps increase children's emotional regulation and decrease behavioral problems.

The Strong Start curriculum covers the State of Utah's Pre-Kindergarten guidelines in the Social/Emotional domain (Guideline I: The child develops self-awareness and positive self-esteem, Objective 4: Expresses self in different roles and mediums, d: Expresses feelings and emotions through language; Guideline II: The child develops social skills that promote positive interactions with others, Objective 5: Expresses emotions and feelings, Objective 6: Develops skills to solve conflicts, with guidance). Your class will be assigned to receive the *Strong Start* curriculum, though the children's emotional regulation and internalizing behaviors will be rated by you.

Procedures
- If willing to participate, you will complete a 28-item form for each of your students that surveys student-teacher relationships.
- A few weeks later, you will be asked to complete another 28-item form for each of your students that measures their social and emotional knowledge through emotional regulation and internalizing behaviors.
- You will be asked to complete this form three times during the *Strong Start* study (at the beginning of the study, about six weeks later, and at the conclusion of the study).
- Students in the *Strong Start* groups will be offered instruction of the curriculum during class twice a week for approximately 25 minutes each time over a period of five weeks. You will be the instructor of the curriculum.
- You are also asked to infuse *Strong Start* material into your other classroom activities as well as complete an additional activity the day or two following the corresponding lesson.
- At the conclusion of the curriculum, you will be asked to complete a questionnaire evaluating the *Strong Start* curriculum.

Risks

There is minimal risk for participating in this study.

Benefits

There are no direct benefits to you. The results of this study will help further the validation of the *Strong Start* social and emotional learning curricula in preschool settings.

The *Strong Start* curriculum coincides with the Pre-Kindergarten Social/Emotional guidelines, thus ensuring that the time dedicated to *Strong Start* will help you meet the state requirements.

Confidentiality

Any information on you and your students will be kept confidential. The research data will be kept in a secure location and only the researchers will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept on a password–protected computer.

Compensation

You will receive a copy of the Strong Start Pre-K curriculum for you to keep, and $300 following the completion of the study for the time you spend completing rating scales and teaching the *Strong Start* lessons.

Participation

Your participation in this study is voluntary. You have the right to withdraw from this study at any time. Refusal to participate or withdrawing from this study will not affect your employment or standing at your school in any way.

Questions about the Research

If you have any further questions about the study, please contact me at lesliegunter@live.com, (435) 590-7282 or my mentor, Paul Caldarella, by emailing paul_caldarella@byu.edu or calling (801) 422- 5081. Questions about your child's rights as a study participant or comments or complaints about the study also may be addressed to the IRB Administrator, Brigham Young University, A-285 ASB, Provo, UT 84602; 801-422-1461 or irb@byu.edu.

I have read and understood the above consent and desire, of my own free will, to participate in this study to evaluate the effectiveness of the *Strong Start Pre-K* curriculum.

Teacher's Name _____

Signature _____ Date _____

Control Group Teacher Permission to Participate in Research
Social and Emotional Learning in Preschool: An Evaluation of the *Strong Start* Curriculum

Dear Teacher,

Introduction
My name is Leslie Gunter. I am a graduate student in the School Psychology program at Brigham Young University. My mentor, Professor Paul Caldarella, and I are conducting a research study about preschoolers' knowledge of emotions in social situations such as school. In this study, the students will be taught ten lessons and two booster lessons from *Strong Start*, a social and emotional learning curriculum, on understanding feelings, how to handle emotions, being a friend, and solving people problems. The purpose of my research study is to better understand if *Strong Start* helps increase children's emotional regulation and decrease behavioral problems.

The Strong Start curriculum covers the State of Utah's Pre-Kindergarten guidelines in the Social/Emotional domain (Guideline I: The child develops self-awareness and positive self-esteem, Objective 4: Expresses self in different roles and mediums, d: Expresses feelings and emotions through language; Guideline II: The child develops social skills that promote positive interactions with others, Objective 5: Expresses emotions and feelings, Objective 6: Develops skills to solve conflicts, with guidance). Your class will not be assigned to receive the *Strong Start* curriculum, though the children's emotional regulation and internalizing behaviors will be rated by you.

Procedures
- If willing to participate, you will complete a 28-item form for each of your students that surveys student-teacher relationships.
- A few weeks later, you will be asked to complete another 28-item form for each of your students that measures their social and emotional knowledge through emotional regulation and internalizing behaviors.
- You will be asked to complete this form three times during the *Strong Start* study (at the beginning of the study, about six weeks later, and at the conclusion of the study).
- Students in the *Strong Start* groups will be offered instruction of the curriculum during class twice a week for approximately 25 minutes each time over a period of five weeks.
- Students in the control group will not receive the *Strong Start* curriculum and teachers in the control group will not be responsible for teaching the curriculum.

Risks
There is minimal risk for participating in this study.

Benefits

There are no direct benefits.

Confidentiality

Any information on you and your students will be kept confidential. The research data will be kept in a secure location and only the researchers will have access to the data. At the conclusion of the study, all identifying information will be removed and the data will be kept on a password–protected computer.

Compensation

You will receive a $150 compensation following the completion of the study for the time you spend completing the rating scales.

Participation

Your participation in this study is voluntary. You have the right to withdraw from this study at any time. Refusal to participate or withdrawing from this study will not affect your employment or standing at your school in any way.

Questions about the Research

If you have any further questions about the study, please contact me at lesliegunter@live.com, (435) 590-7282 or my mentor, Paul Caldarella, by emailing paul_caldarella@byu.edu or calling (801) 422- 5081. Questions about your child's rights as a study participant, or comments or complaints about the study also may be addressed to the IRB Administrator, Brigham Young University, A-285 ASB, Provo, UT 84602; 801-422-1461 or irb@byu.edu.
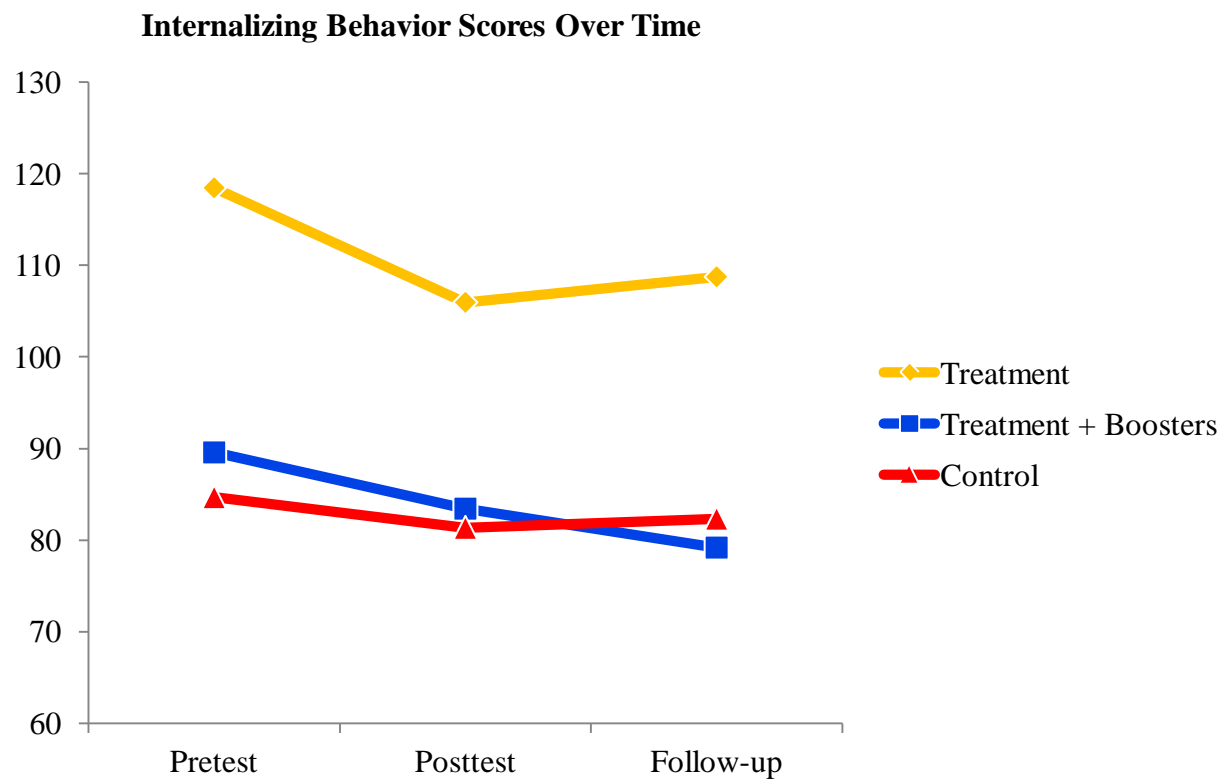
I have read and understood the above consent and desire, of my own free will, to participate in this study to evaluate the effectiveness of the *Strong Start Pre-K* curriculum.

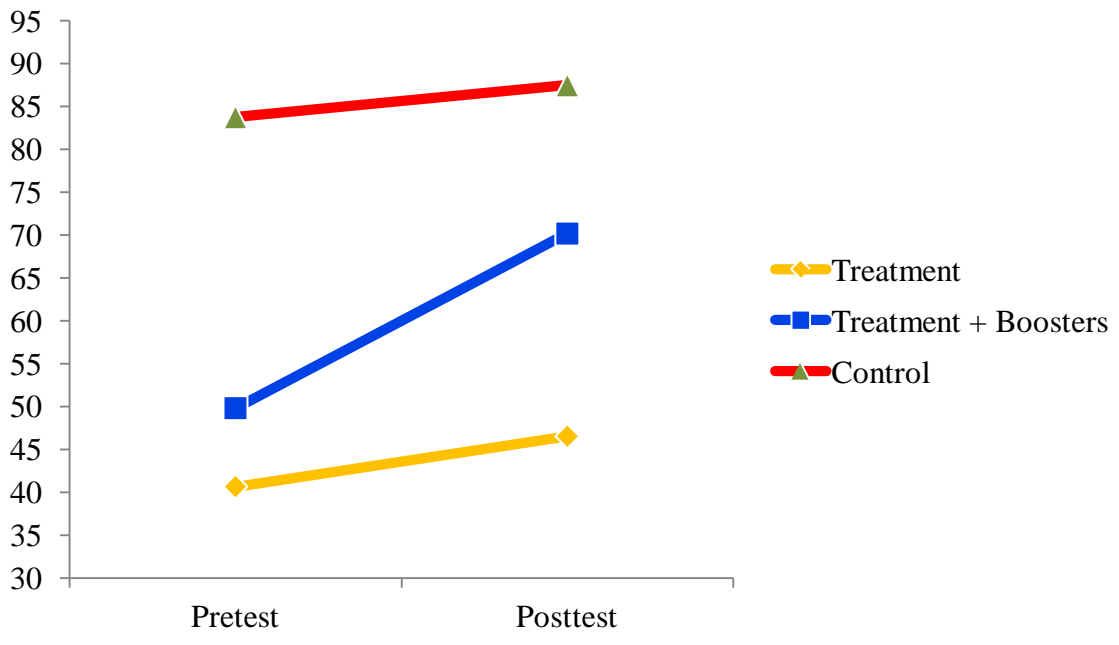Teacher's Name _____

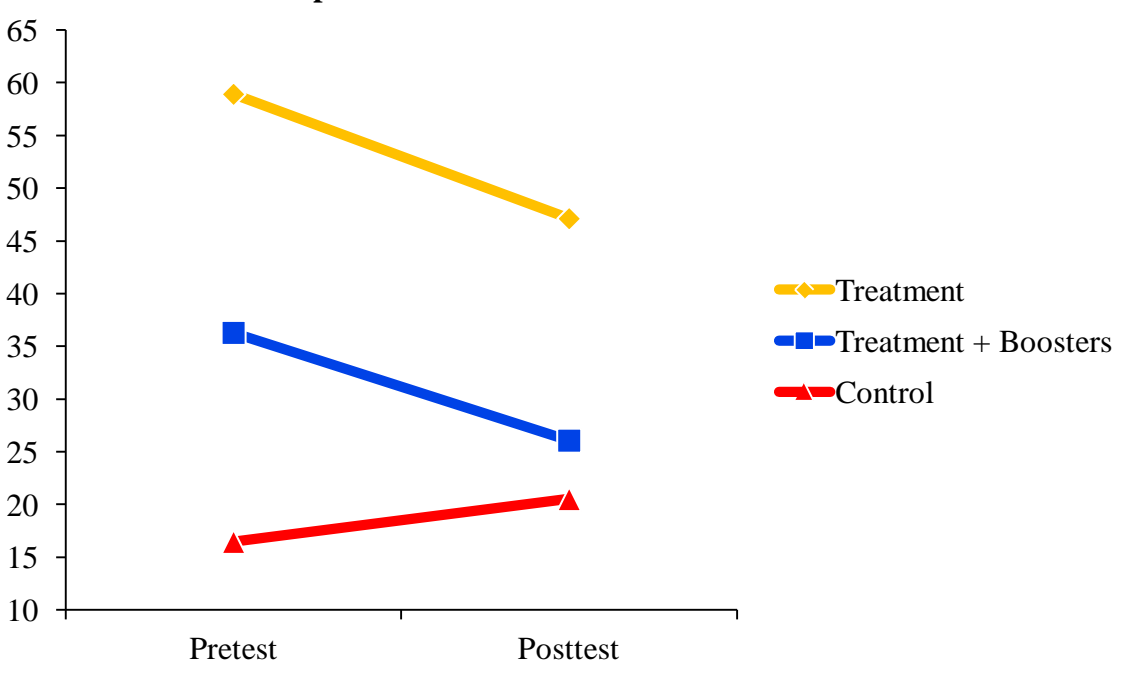Signature   _____   Date _____

Appendix F. PreBERS Results

Emotional Regulation Scores Over Time
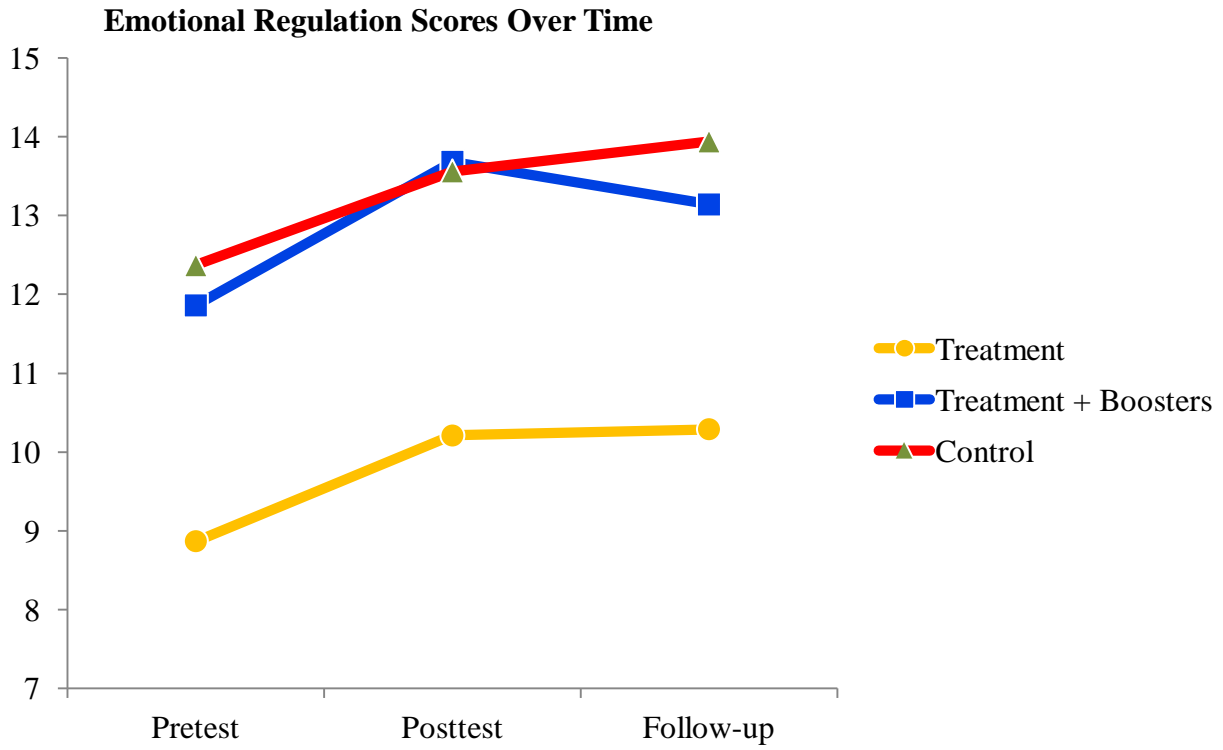
Appendix G. PKBS-2 Results

Internalizing Behavior Scores Over Time

Appendix H. Student-Teacher Relationship Scale Results
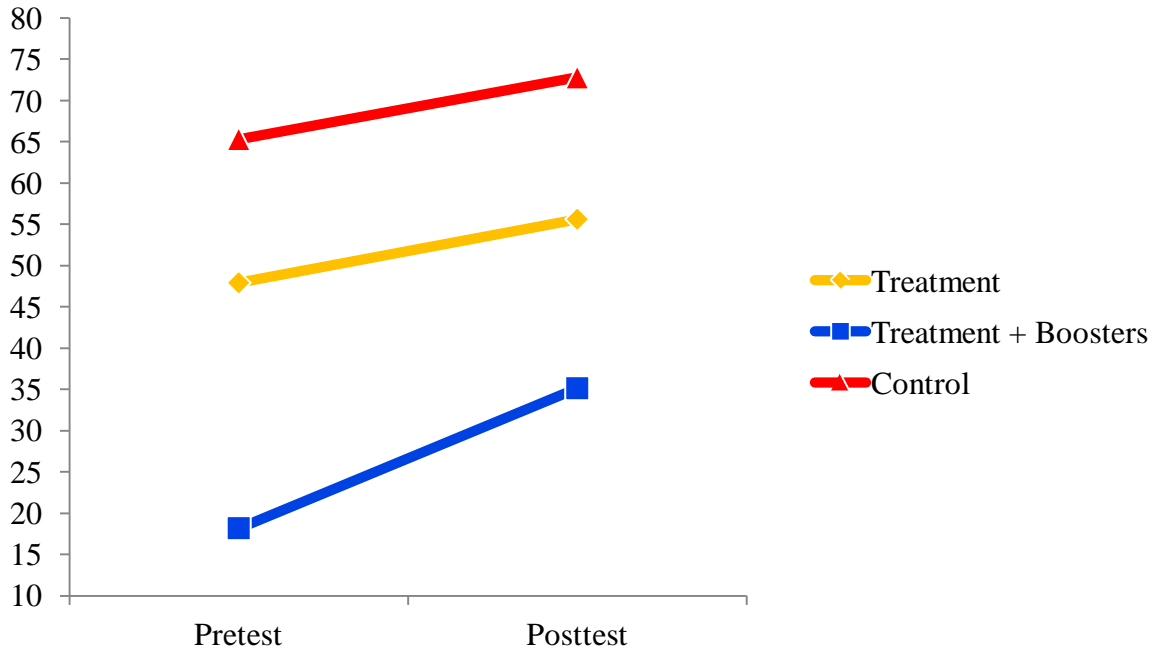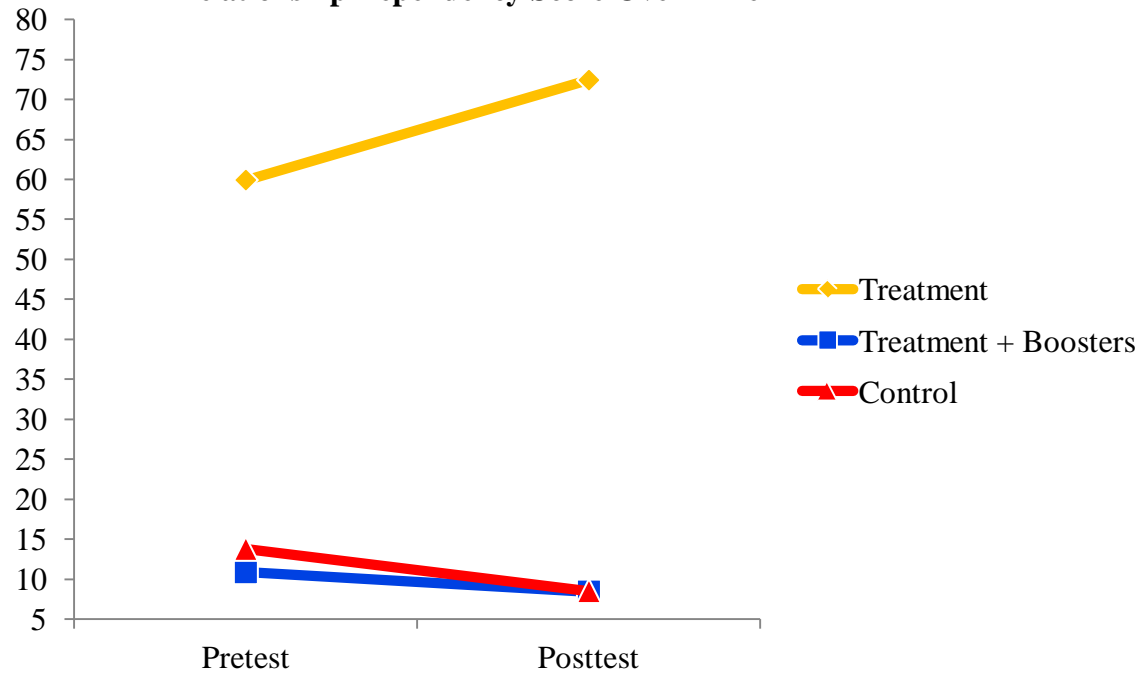
Relationship Total Score Over Time

Relationship Conflict Score Over Time

Relationship Closeness Score Over Time

Relationship Dependency Score Over Time

Appendix I. Social Validity Results

Social Validity: Teachers' Views of the Goals, Procedures, and Outcomes of Strong Start Pre-K

Social Validity Results Across Educators—Goals		
Item	Agreed	Did not agree
1. Students' social and emotional concerns are great enough to warrant use of a curriculum such as *Strong Start*.	100%	0%
2. A student's level of social and emotional competence is important to their academic success.	100%	0%
3. It is important that social and emotional knowledge and skills be taught in a school setting.	100%	0%
4. It is feasible for a regular education teacher to teach social and emotional knowledge and skills.	100%	0%
5. I feel that I have the necessary skills/training to help students with social and emotional difficulties.	50%	50%

Social Validity Results Across Educators—Procedures		
Item	Agreed	Did not agree
1. I am confident in my ability to implement *Strong Start*.	100%	0%
2. I was able to reinforce the skills taught in the *Strong Start* lessons during other classroom activities.	100%	0%
3. The time taken to deliver the weekly lessons was acceptable.	100%	0%
4. The length of lessons was appropriate for preschool students.	0%	100%
5. The materials provided (manual, pictures, handouts) were sufficient to teach the curriculum.	100%	
6. The materials needed for *Strong Start* were easy to access.	100%	0%
7. I felt that the curriculum manual alone provided sufficient training to teach the lessons.	50%	50%
8. The preparation time required to teach the lessons was acceptable.	50%	50%
9. It was reasonable for me to teach the curriculum as it was designed.	50%	50%
10. I found *Strong Start* easy to teach.	50%	50%
11. Students were interested in or excited for the lessons and showed active participation in them.	0%	100%

Social Validity Results Across Educators—Outcomes		
Item	Agreed	Did not agree
1. The teaching procedure of the program was consistent with my regular teaching procedures.	50%	50%
2. *Strong Start* was a good way to help prevent students' social and emotional problems.	100%	0%
3. I feel my students learned important skills from *Strong Start*.	100%	0%
4. I feel my students use the skills learned from *Strong Start*.	50%	50%
5. My students liked *Strong Start*.	50%	50%
6. Students demonstrated a transfer of knowledge and skills from the lessons to other school situations.	0%	100%
7. I was satisfied with the social and emotional knowledge and skills demonstrated by the students during the course of the curriculum.	50%	50%
8. Most teachers would find *Strong Start* suitable for improving social and emotional competence.	50%	50%
9. I would recommend the use of *Strong Start* to other teachers.	100%	0%
10. I would like to implement *Strong Start* again.	50%	50%
11. I enjoyed teaching *Strong Start*.	50%	50%