THE EFFECTS OF POSITIVE ACTION, A CHARACTER CURRICULUM, ON THE SOCIAL AND EMOTIONAL DEVELOPMENT OF ELEMENTARY CHILDREN

by

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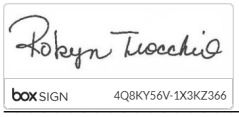

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ABSTRACT

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Reduced peer interactions during the COVID-19 pandemic have contributed to higher rates of psychopathologies, suicide rates, and negative affect in elementary-aged children. The current study examined the effects of Positive Action (PA), a character education curriculum, on the social and emotional skills of K-3 students from two school districts receiving 60 minutes of daily recess in addition to a 15-minute daily PA lesson. The study sample included K-3 children (N=2,000): 1,000 children from a north Texas school district and 1,000 children from a central Texas school district. PA lessons focused on developing social-emotional learning (SEL) skills such as empathy, respect, honesty, trust, confidence, and self-esteem. Throughout the school year, teachers delivered the Positive Action 15-minute daily character development lessons and provided four 15-minute child-directed, outdoor recesses daily. At the end of each semester, SEL skills were tested using xSEL, a web-based computer assessment that examines four subscales in early elementary students: emotion regulation (understanding what others are feeling), social problem-solving (ability to think through social

challenges), social perspective-taking (understanding others' thought and intentions), and self-control (ability to modulate thoughts and feelings to achieve a goal). School districts scheduled a specific week that teachers would collect xSEL data for their classes in both semesters. The teachers took the children to the computer lab where they would sit at individual computers and respond to facial expressions and social situations on-screen that related to the four xSEL subscales. The test took approximately 25 minutes. Once completed, the assessment was submitted online directly to the xSEL database for data analysis. The data was accessible by the researcher once completed. The independent variables of the study were school district, age, and sex, and the dependent variables were the four xSEL subscales. A repeated measures MANOVA was used to determine score differences among the independent variables and change scores between Fall and Spring semesters. Results showed differences in subscale scores by district and grade but were similar between sexes and races across time. Children need more time in the school day to play and receive daily character guidance to develop their emotions and social skills. Positive Action is helping children of all races, sexes, grades, and geographic location get back on track developmentally; they are able to use the character lessons as a model to practice positive emotional and social skills with each other during recess and in the classroom.

CHAPTER 1: INTRODUCTION

Children and adolescents in the United States are facing a serious mental health crisis. According to the National Institute of Mental Health (NIMH, 2023b), suicide was the 10th leading cause of death in children ages 5-9 years, and the 2nd leading cause of death in children ages 10-14 years in 2020. The Center for Disease Control (CDC) also reported between 2000 and 2007, the suicide rate among children ages 10-14 years declined, but then this number nearly tripled between 2007 and 2021 (CDC, 2023). Homicide rates doubled for the 10–14-year age group and the 15–19-year age group between 2016 and 2021.Up until 2011, homicide rates were higher than suicide rates for the 15–19-year age group, but suicide rates rose above homicide rates between 2011 and 2017 (Curtin & Heron, 2019). The suicide rates in the U.S. increased from 14.1 suicides per 100,000 people in 2020 to 23 per 100,000 in 2021 (Fleck, 2024). Declines in mental health impact how children express their emotions and interact with others. This data is critical in understanding the social and emotional deficit children face and the consequences of such a developmental gap. The pressures children feel translates into aggressive and violent acts toward themselves and others (Curtin & Heron, 2019; Gray, 2011; Snyder et al., 2013).

The Coronavirus Disease 2019 (COVID-19) pandemic created complications to an already complex issue in children and adolescents. The global lockdowns, isolation, and extended time away from school posed challenges to the mental health of early childhood through adolescents. Theberath et al. (2022) reported an increase in negative affect during the pandemic with anxiety, depression, tension, and loneliness becoming dominant feelings for children. During the lockdown, children were unable to interact

with their friends and teachers in person. Additionally, classes were held online which was stressful to children, teachers, and parents for many reasons. Children had unstable Wi-Fi or no Wi-Fi, parents were absent from the child's at-home video calls so children might not even be on the call, and teachers were introducing material through a method they had not been trained in or felt comfortable engaging in with the children and/or parents (Barba, 2021). This situation was especially risky for children who had unstable home lives, as the quarantine may have trapped them in unsafe or traumatic situations that further harmed their mental wellbeing (Abramson, 2020). COVID-19 denied children the ability to engage in important social relationships and weighed a heavy burden on their emotional health (Chen & Chen, 2020). School is a critical setting not only for academics, but for children to practice their socialization skills and garner emotional support from their community. School closings disrupted children's daily routines and blurred boundaries between busy educational settings and relaxed, sedentary home settings. Without school, children faced reduced physical activity time because they were no longer going to recess or physical education classes. All of these changes were difficult for children, but what made it worse was that these factors were accompanied by strict, mandated isolation measures, so children could no longer socialize with their peers in person (Ellis et al., 2020). Social isolation during the pandemic was associated with loneliness and other negative consequences on mental health. The decline in children's mental health during and after the pandemic has reignited the conversation surrounding social and emotional learning (NIMH, 2023b; Therabath et al., 2022; Zhou et al., 2020).

Social and emotional learning (SEL) has become an important topic over the past few years due to the rise in mental health issues plaguing our youth today. SEL is defined

as “the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (CASEL, 2023). Federal and state officials have recognized the decline in children’s ability to show or feel empathy, trust and respect each other, problem solve, share opinions to learn instead of using aggressive or passive aggressive behaviors/strategies to get their way (Catalano et al., 2003). As a result, most states now require or strongly recommend SEL to be addressed in the schools at all levels (S.B. 123, 2021).

Poor mental health and SEL skills have significant negative effects on a young child’s holistic development (Gray, 2017). Historically, play from very early ages was a foundational attribute for whole child development (Rhea, 2021). Play began to decline for children during the rise of agriculture and the Industrial Revolution, as more children were brought into the workforce (Gray, 2017; Rhea, 2021). Children as young as five were expected to work on family farms and pre-pubertal children worked as apprentices with the rise of factories. Conditions improved for children in the 1930s with the development of child labor laws that had age restrictions on work. The 1950s were the “golden age of unstructured, outdoor play” due to the rise of playground infrastructure and adequate playtime for children. After the 1970s, there was a sharp decline in unstructured, outdoor play due to advancing technologies for entertainment, longer school days with less recess, and parental concern over their children’s safety as a result of excessive media crime coverage (Gray, 2017; Rhea, 2021). This decline in play is associated with increases in psychopathologies, such as depression, anxiety, lack of sense

of personal control, and narcissism (Gray, 2017).

When children receive adequate amounts of play and physical activity, their physical, emotional, and social health begin to thrive. Recess provides children with the ideal setting to practice social and emotional skills they learned in the classroom with their peers (Clark & Rhea, 2017; Rhea & Rivchun, 2018). At outdoor recess, children can freely express themselves without the influence of teachers or other adults. They have a safe space and the autonomy to experience conflicts and learn how to resolve them, they learn how to share and cooperate with others, and they figure out how to express their emotions in healthy and productive ways (Bauml et al., 2020;

The Let's Inspire Innovation 'N Kids® (LiiNK®) project is a longitudinal recess and character development intervention focused on improving the overall health and wellbeing of children as a result of increased and more frequent recess, defined as unstructured, outdoor play and introducing character skills daily. The majority of schools involved in this intervention are in Texas with a few in Oklahoma and Michigan. A diverse population of children have been studied across private and public schools; urban, suburban, and rural schools; children who are disadvantaged and advantaged, all races, all elementary ages; small schools and large schools (Rhea & Rivchun, 2018). The findings show LiiNK intervention children receiving 60 minutes of recess daily have shown to improve on-task behaviors in the classroom by up to 40% (Rhea & Bauml, 2018; Rhea & Rivchun, 2018), moderate to vigorous physical activity (MVPA) (Farbo et al., 2020), health-related fitness skills (Webb & Rhea, 2023), healthy body fat percentages (Farbo & Rhea, 2021), focus (Lund et al., 2017), and happiness (Clark & Rhea, 2017), while also decreasing stress levels (Kirby, 2022). This data already supports

some physical, social, and emotional facets needed for children to be healthy and whole. If a healthy, whole child can be developed through outdoor play and character skills to exercise their bodies and learn to socialize and express developmentally appropriate emotions, then children will be better equipped to regulate their emotions as well as solve problems and have empathy for others who are different from themselves.

Statement of Purpose

The purpose of the study was to examine the social and emotional differences between elementary school children receiving the LiiNK intervention in two school districts, north Texas and central Texas. The LiiNK Project has shown social-emotional skills can be developed through unstructured, outdoor play. The question now is whether one Texas school district performs better or worse than another when both receive the LiiNK recess and Positive Action® character intervention but have demographic differences such as race.

CHAPTER 2: REVIEW OF LITERATURE

The review of literature explores both historical and modern perspectives on child development, and more specifically, social-emotional learning and character development, i.e., empathy, trust, respect, honesty, confidence, and self-esteem. Psychologists Dr. Jean Piaget and Dr. Erik Erikson laid the child development groundwork which provided a basis for modern day social-emotional learning frameworks to develop. As child development research has progressed, differences have been noted across race/ethnicity, age, and sex, prompting the need for the literature review.

Child Development Theories

Piaget's Theory of Cognitive Development

Swiss psychologist Dr. Jean Piaget (1896-1980) pioneered work on the intellectual development of children and identified four stages of development: the sensorimotor stage, preoperational stage, concrete operational stage, and formal operational stage. These stages describe the ways in which children's thought patterns and responses to their external environment change and grow. According to Piaget, cognitive development always follows this sequence and stages cannot be skipped. The complete model can be seen in Appendix A.

Sensorimotor Stage. The sensorimotor stage encompasses children from birth to 2 years old. In this stage, children are learning about the world through their senses and by exploring their limited environment. Infants are only aware of what is directly presented to them and experiment through trial and error. Later in the stage, infants develop object permanence, where they understand even if they do not see an object, they

know it still exists. Object permanence is a crucial sign that a child is developing memories. By the end of the stage, infants understand words represent objects and actions, and they begin to acquire language skills.

Preoperational Stage. The preoperational stage includes children ages 2-7 years. In this stage, children can think about things symbolically. For example, they use symbolic representation when playing make-believe and pretending an object is something else or that inanimate objects are alive. They mimic the speech and movement patterns of other people or other objects. A defining feature of this stage is that children engage in egocentric thinking. They have a difficult time seeing others' perspectives and comprehending others' experiences in the world differently.

Concrete Operational Stage. Children in this category are between ages 7-11 and their thought patterns are characterized as being less egocentric, more logical, and incorporate more concrete reasoning than younger children. Despite these developments, they lack abstract and hypothetical thinking (Zhou & Brown, 2015). They realize their thoughts and feelings are unique to them and they show more empathy. A key development in this stage is conceptualizing conservation; children become aware things remain the same, even if they exist in different forms, such as liquids in differently shaped containers holding the same volume of liquid.

Formal Operational Stage. Children in this stage are 11 years and older and can process symbols and abstract concepts, such as algebra. They can form theories, consider possible outcomes, and test hypotheses logically. Children in this stage can comprehend and speculate consequences of hypothetical problems.

Generally, children advance through Piaget's cognitive development stages

during the ages specified, and key features of each stage signify crucial developmental benchmarks, such as understanding conservation or gaining empathy. Although Piaget's framework ends at 11 years and older, he believed people to be lifelong learners. Erikson, too, believed in lifespan stages, and his model of psychosocial development extends past Piaget's defined age groups.

Erikson's Theory of Psychosocial Development

Dr. Erik Erikson (1902-1994), a German psychologist, coined the stages of psychosocial development. He identified eight stages a healthy individual should pass through during childhood, adolescence, and into adulthood (Erikson, 1950). These eight stages unfold according to one's environment, social upbringing, and natural timing (see Appendix B).

Trust versus Mistrust. This stage is composed of infants from birth to 18 months and is characterized by caregiver dependence. This is when attachment styles are formed depending on the quality of care received; if needs are promptly met, the infant learns they can trust their caregiver. If infants face neglect and inconsistent care, they will develop mistrust toward their caregivers. Success or failure in building trust has lasting impacts on later stages of development.

Autonomy versus Shame and Doubt. This stage encapsulates 18-month-olds to about 2-3-year-olds. Here, children learn to do things independently. If they are encouraged and praised for their independent actions, they develop autonomy. If they are discouraged from exploring and working independently, they may become doubtful and ashamed of their abilities. Without proper encouragement, they may lack confidence in themselves later in life.

Initiative versus Guilt. This stage includes children aged 3-5 years. During this time, children focus on autonomous actions and forming goals. They want to explore, learn, and accomplish things on their own. If they receive encouragement and support from their caregivers, they develop a sense of initiative and feel purposeful. If their actions are met with discouragement, they will feel guilt and despair and may be unwilling to take initiative in the future.

Industry versus Inferiority. In this stage, children ages 6-11 years begin to move beyond the family for the first time, venturing into greater society. Also, relationships outside of their immediate household, such as relationships with their neighbors and classmates, begin to become important (Issawi & Dauphin, 2020). Children at this age develop self-confidence, become more malleable with regards to sharing and cooperation, and begin to branch out and develop new skills according to their unique interests. They start considering themselves as individuals interacting within a complex society of interweaving relationships and come to understand they play a role in a functioning society. They start to explore their interests and talents; if they are ridiculed or otherwise discouraged, they will lack a sense of motivation and self-esteem. If they are praised and encouraged, they develop a sense of accomplishment, confidence, and individuality (Zhou & Brown, 2015).

Identity versus Role Confusion. This stage is marked by adolescents aged 12-18 years grappling with their place in the world and figuring out their future goals. Here, adolescents explore different roles and values to figure out what they align with and who they wish to be. Excessive responsibilities or a lack of guidance can contribute to a psychosocial crisis, and the adolescent will feel confused and lack direction. Failure to

form a clear identity during this time can contribute to complications in one's goals, relationships, and well-being.

Intimacy versus Isolation. This stage takes place during young adulthood, or ages 19-40. These adults strive to create and maintain meaningful relationships with friends, family, and romantic partners. If they are successful, they feel a sense of belonging and emotional fulfillment. Someone who struggles to make connections may experience loneliness, isolation, and detachment from others.

Generativity versus Stagnation. This stage spans middle adulthood, ages 40-65 years. Generativity involves protecting and teaching younger generations. People in this stage feel a sense of mentorship and want to guide and nurture others. Failure to fulfill this role may lead to feelings of inadequacy and disappointment, and it can make someone feel stagnant, like they haven't fulfilled their purpose. Stagnation can contribute to restlessness and social disconnection.

Ego Integrity versus Despair. This stage begins around late adulthood, or 65 years, and is the final phase of Erikson's theory. It is a time for individuals to reflect upon their lives and achievements. If they feel contentment and pride in what they've done, they achieve ego integrity. If they fail to feel a sense of achievement and pride in their life, they may feel despair and have regrets.

It is important to understand the theoretical perspectives of two major child development psychologists as it established a precedent for understanding how children typically behave and grow. These observed developmental patterns researched by Piaget and Erikson were an approximate standard for how children transform into functioning adults. However, the standard may not apply to all children equally: sex, race/ethnicity,

and grade level differences may be associated with deviations from the established norms.

Social-Emotional Competence and Demographic Differences

Sex

It is well known that males and females develop physically at different ages, but there are also differences in how and when they develop socially and emotionally (Romer, 2011; Ross et al., 2019; Winsler & Wallace, 2002). A cross-sectional study of K-12 children across the United States had children, teachers, and caregivers complete a Social-Emotional Assets and Resilience Scales (SEARS) assessment (Romer, 2011). They found all ages of females consistently had higher rated social-emotional competencies across all versions of the SEARS tests and by all raters than the males. Females were rated higher across all social-emotional attributes compared to their same-aged male peers (Romer, 2011).

Winsler & Wallace (2002) analyzed teacher and parent assessments of preschool children and found boys were rated as having more "externalized behavioral problems" than girls, and parents perceived more "problems" in their children than their teachers did. In this case, these "problems" refer to outbursts and distractions during academic times. Teachers' reports were correlated with children's sustained attention, behavior, peer relations, negative affect, and other social-emotional attributes (Winsler & Wallace, 2002).

Clark & Rhea (2017) found when play was missing, boys had a very difficult time developing healthy social and emotional facets of their lives. They became less disciplined in the school setting (i.e. more disruptions and fidgeting), more aggressive,

and more anxious as a result of sedentary behaviors throughout childhood.

Race

Race refers to groups of people based on similar physical characteristics such as skin color. It is often used interchangeably with ethnicity, which refers to groups of people of similar cultures, languages, and religion (Scotpho, 2019). Depending on the study, ethnicity may or may not be recognized. In a sample of 29,415 students in grades 3-12, a survey was given focused on school climate and personal SEL skills (Jones et al., 2020). Compared to white peers, children of other races self-reported lower SEL skills. Additionally, Asian and Hispanic children reportedly perceived school climates to be more positive than White children did, and White children rated school climate higher than Multiracial children (Jones et al., 2020).

The nature of self-report studies presents issues of honesty and integrity in results, but it is important to remember that perception is often reality. Zilanawala et al. (2015) used data collected from the Millennium Cohort Study of seven-year-old children and "found that Pakistani, Bangladeshi, and Black Caribbean children had significantly more socioemotional difficulties than White children" (2015, p.95). They defined social-emotional difficulties as those relating to social, emotional, and behavioral problems, including both internalized and externalized behaviors. Examples of these problems were peer conflicts and classroom misconduct. Despite these findings, the researchers attributed most of the children's socioemotional differences to general socioeconomic differences between White and non-White families.

This study will utilize children from Texas school districts. Texas is one of the more racially diverse states in the US. According to the US Census Bureau, a diversity

index score of 65% or more is the highest category of diversity, and Texas scores a 67%, making it the sixth most diverse state in the nation (US Census Bureau, 2021). The race makeup of Texas is 39.7% White, 39.3% Hispanic, 11.8% Black, 5.4% Asian, 3% Two or More Races, 0.3% American Indian or Alaska Native, 0.1% Native Hawaiian or Pacific Islander, and 0.4% Other.

Age

The need for positive social interactions with peers and the impact of being deprived of such interactions differs for grade levels. Kindergarten through fifth grade, or ages 6-11 years, is a developmentally important time where children become more independent from their parents, increase their autonomy, and become more reliant on peer relationships for support (Erikson, 1950). Overall focus shifts from family to friends and peers. Losing recess and break times for any reason, be it because the school does not give recess breaks or because of a global pandemic, has negative implications for children still developing their social and emotional skills alongside their peers.

Positive Action has proven to be useful in curbing undesirable behaviors in the classroom, even in young children (Li et al., 2011). One study examined third, fourth, and fifth grade children (ages 8-11) from 14 elementary schools in a disadvantaged urban city (Li et al., 2011). Young children who received Positive Action daily character lessons reported less substance abuse, violence, bullying, skipping class, stealing from the school, and other disruptive classroom behaviors (Li et al., 2011). Moreover, Synder and colleagues (2012) reported elementary school quality (e.g. school safety, child, parent and teacher involvement, quality child support, standards-based learning) was significantly improved through the Positive Action program. The skills they learn from

the Positive Action curricula can be carried with them into adulthood (Taylor et al., 2017).

As children age, they retain the lessons and skills they acquired through elementary school SEL programs (Taylor et al., 2017). Children who receive SEL lessons throughout the duration of K-12 have better outcomes in terms of SEL skills, attitudes, graduation rates, safe sexual behaviors, and other indicators of well-being, regardless of race, SES background, and school location (Taylor et al., 2017). Children who receive the right tools become healthy and functional adults.

Technology and the Decline of Play

Children and adolescents spend at least six hours of their school day indoors for nine months out of the year. When they get home, they spend less and less time outdoors and more time using technology. Face-to-face socialization is limited while becoming more reliant on technology. As of 2022, 37% of teenagers and 330 million adults were affected by a technology addiction (Geyser, 2022). During the COVID-19 pandemic, children became even more technology dependent as they spent considerable time on social media. Social media quickly became a major way people could communicate with their extended family, friends, and classmates, and electronics became one of the few ways to keep entertained over the many months of state shutdowns (Ellis et al., 2020; Petrosyan, 2022). A national survey revealed prior to COVID-19, 60% of parents reported their children using digital devices for 3 hours or less per day (Statista Research Department, 2022). During the COVID-19 pandemic, 70% of parents reported that their children were using digital devices for more than 4-5 hours per day, with 11% being more than 9 hours of usage per day (Statista Research Department, 2022). Children's

over-reliance on technology for entertainment has taken away valuable time they could spend outdoors and interacting with others, which has taken a toll on their mental health.

Mental Health

Depression, Anxiety, and Isolation

As of 2022, anxiety is at an all-time high: 31.9% of adolescents (ages 13-18) and one in seven children have an anxiety disorder (NIMH, 2023a). Anxious children are growing into anxious adults; 40 million adults in the United States have an anxiety disorder. This finding is not limited to the United States. A cross-sectional study conducted in China examined 8,079 adolescents aged 12-18 years during COVID-19. Students completed an online survey assessing their situational awareness surrounding the pandemic and their depressive and anxiety symptoms using the Patient Health Questionnaire (Spitzer et al., 1999) and the Generalized Anxiety Disorder Questionnaire (Spitzer, 1999). They found depressive symptoms in 43.7% of the students, anxiety symptoms in 37.4%, and a combination of depression and anxiety symptoms in 31.3%. Female students as well as older adolescents were at a higher risk for developing depressive and anxiety symptoms (Zhou et al., 2020).

For children who were used to having a daily pattern of going to school and interacting with others, the COVID-19 pandemic was especially difficult. According to parents, their K-8 children were deeply impacted by social isolation, were stressed about home schooling conditions, suffered from heightened anxiety over attachment issues at home, and were fearful of the Coronavirus itself (O'Sullivan et al., 2021). Some parents even reported that their young children regressed to such behaviors as wetting the bed and violently fighting siblings (O'Sullivan et al., 2021).

A Canadian study conducted during the COVID-19 pandemic asked 1,054 teenagers to respond to online questions regarding loneliness and depression, family time, virtual interactions with friends, schoolwork, social media, and physical activity (Ellis et al., 2020). The participants reported they were extremely concerned about their peer relationships and schooling, and those who spent more time on social media reported higher rates of loneliness and depression. The mental health symptoms were not isolated to one area; children all over the world experienced the harrowing effects of the lock-down, and it became even more apparent that social connection is a basic human need. While psychopathologies have been on the rise in children and adolescents, long-established programs like CASEL have been hard at work in trying to improve social and emotional conditions for school-aged children.

CASEL Framework

The Collaborative for Academic Social & Emotional Learning (CASEL, 1994) has developed a robust reputation for its work on social emotional learning. CASEL's mission is to make social and emotional learning (SEL) an integral part of a child's education from preschool through high school. CASEL addresses five categories children should show competence in: self-awareness (the ability to identify emotions and recognize strengths and weaknesses), self-management (the ability to recognize and control emotions and behaviors), social awareness (the ability to take others' perspectives and empathize with others of different backgrounds), relationship skills (the ability to manage conflict in a healthy manner and seek help when needed), and responsible decision-making (the ability to make constructive choices about behaviors and social interactions).

The CASEL framework further details the five categories of competence with descriptions and examples. Self-awareness is the ability for one to understand their emotions, thoughts, and values and how they influence their behavior across various contexts. With self-awareness, one should understand their strengths and weaknesses while maintaining a sense of confidence and purpose. Qualities that CASEL looks for in self-aware children include the ability to identify one's emotions, having a growth mindset, and developing interests and a sense of purpose.

CASEL defines social awareness as the ability to understand and empathize with others, regardless of background, culture, or context. A child with social awareness feels compassion for others, takes others' perspectives, can recognize situational demands, and can identify social norms. Self-management is the ability to manage one's emotions, thoughts, and behaviors across different contexts to achieve goals. A child with self-management skills can manage stress, feel motivation to accomplish goals, and can exercise self-discipline.

The relationship skills component describes the ability to establish and maintain healthy relationships and to navigate settings with people from diverse backgrounds. A child with relationship skills can communicate effectively with others, resolve conflicts in a constructive manner, collaborate with others, and develop positive relationships. CASEL describes responsible decision-making as the ability to make thoughtful, constructive choices about one's own behavior and interactions with others across situations. Some of the key qualities include finding solutions to problems, analyzing information to make judgments, and demonstrating open-mindedness.

The CASEL organization makes efforts to promote these qualities for school use,

so teachers and other school personnel can work toward establishing an equitable learning environment across key settings (i.e. classroom, hallways, cafeteria, and playground) and improve social, emotional, and academic learning. The organization strives to cultivate youth voice, agency, and engagement, create supportive school climates, enhance adult SEL competence levels, and form partnerships with families and the community. Many character development and SEL programs use this framework to develop their curricula. Others may just use the framework to focus children on the competencies highlighted with CASEL (Lawson et al., 2019).

Social and Emotional Learning Studies

Social and Emotional Learning (SEL) programs have been effective at enhancing children's mental health and academic performance (Dong et al., 2022; McClelland et al., 2017; Mahoney et al., 2018). In reviews of SEL programs across different time periods, settings, and child populations, Kindergarten through grade 8 (K-8) children that underwent SEL interventions showed improvements in academic performance and displayed less behavioral and emotional problems (Dong et al., 2022). These findings applied to children in and out of the school setting and with and without prior behavioral and emotional problems (McClelland et al., 2017). Not only are SEL programs effective at producing immediate positive outcomes, they have also proven to be effective at producing long-lasting effects as seen during various follow-ups (Mahoney et al., 2018). As previously mentioned, many states including Texas now require schools to provide children with social and emotional learning curricula; it became especially prevalent following children's return to school after the COVID-19 pandemic, when educators and politicians realized effective learning could not take place without proper management of

emotions and social skills (S.B. 123, 2021).

Positive Action

Overview and Key Concepts

Many SEL programs are available nationwide, but with different approaches. Positive Action (PA) is focused on social-emotional learning and health promotion. This is in contrast to many other school-based curricula that take a more risk-based, problem-focused approach. The difference is that PA's focus is promoting and strengthening positive behaviors, whereas other curricula's focus lies heavily on the prevention of specific risk-related behaviors (i.e., substance abuse, mental health disorders). PA has been found to be one of the most effective evidenced-based school curricula resources available for schools to fulfill SEL and health promotion curriculum requirements (US Department of Education, 2007). This character development curriculum has been designed from a cognitive behavioral theory and social-emotional learning approach (Snyder et al., 2009). It emphasizes positive values in children, such as empathy, respect, honesty, prosocial behavior, and engaged learning. The program requires teachers to deliver 140 lessons yearly scripted into 15 to 20-minute lessons daily related to the character concepts. Positive Action has been recognized by the What Works Clearinghouse as the #1 SEL curriculum to change behaviors in children and adolescents within six months if taught with fidelity (US Department of Education, 2007). When the curriculum is removed, the negative behaviors reappear within six months (Snyder et al., 2013).

Positive Action is based on the idea that people feel good about themselves when they perform positive actions. They use the Thoughts-Actions-Feelings Circle (TAF) to

explain how thoughts lead to actions, actions lead to feelings about oneself, and feelings lead to more thoughts. The idea is to create an infinitely positive cycle of good thoughts, actions, and feelings that generate even more positivity. Positive Action is divided into seven units that emphasize different crucial concepts for character development. Appendices C and D show sample lessons from two different grade level units.

The first unit explores Self-Concept. Children discover how they think and feel about themselves and learn how their families and friends influence their self-concepts. The second unit is Positive Actions for Body and Mind. Children learn how to properly take care of their bodies and minds so they can feel healthy and strong. For their physical health, children learn about nutrition, hygiene, sleep, exercise, and safety. For their minds, children focus on learning, problem-solving, curiosity, and creativity. The third unit is Managing Yourself Responsibly. Here, children learn how to manage their time, talents, thoughts, feelings, behaviors, and other resources. These lessons focus on feelings such as jealousy, pride, thankfulness, and discouragement among others.

Unit four is where Positive Action's lessons shift from introspection to social interactions and addresses Treating Others the Way You Like to be Treated. Here, children learn about respect, empathy, cooperation, and friendliness when interacting with others. This is a very important unit due to the lack of empathy experienced by children, which often takes the form of conduct disorders (Frick & Kemp, 2021). Unit five is Telling Yourself the Truth. This unit focuses on some difficult tasks, such as taking accountability for mistakes, not making excuses, and seeing themselves as they truly are. The sixth unit is Improving Yourself Continually. Children who practiced unit five should naturally have an easier time with this unit. Those who can look at themselves

realistically are thought to be able to determine their personal goals with more ease. Children learn how to set short- and long-term goals and make them work by steady improvements. The seventh and final unit is Review. Children can review the positive actions they learned, practice them again, check on the progress of some of their goals, and set new goals based on where they stand. Here, children can see where they started and compare it to where they are now, giving them a renewed self-confidence in their abilities to grow and prosper.

For the early school years of pre-K through grade 1, many different characters (puppets) and props are used to connect character skills to the children. For example, pre-K children learn about Squeak and Mimi, two very cute hand puppets who find themselves in situations familiar to the children. Kindergarten children learn about Pix-It and Nix-It, a racoon and a panda bear. The raccoon has confidence and wants to try new things, while the panda lacks confidence and feels unsure when trying new things. First graders experience two mice named Maurice and Marrott (his cousin). Marrott discovers that the sad mouse in the picture is really his own mirror reflection, and Maurice helps him develop a cycle of positivity to turn his outlook around. The children enjoy the animals and relate to the situations they encounter; their enjoyment keeps them engaged and excited for the lessons throughout the school year.

Program Findings

The Positive Action program has shown over time to be evidence-based, developmentally appropriate, and unbiased toward any age group (Duncan et al., 2016; Lewis et al., 2015; US Department of Education, 2007). In studies examining racially and ethnically diverse children ranging from third grade through eighth grade, children

receiving the Positive Action interventions exhibited more favorable emotions, less depression, and lower anxiety (Duncan et al., 2016). They also had better academic behavior, less substance abuse, less violence, and less sexual activity (Lewis et al., 2015). These results suggest programs such as Positive Action can improve the emotional health of children and adolescents from low-income, urban settings and that focusing on elementary children's SEL skills is an effective approach for reducing negative behaviors (Lewis et al., 2015; Snyder, 2013).

Positive Action has also shown to align with the CASEL model. According to CASEL, who has a rating guide for all of the common SEL curricula, Positive Action is part of the highest tier, "SELect." CASEL explains that programs in the SELect category deliver high quality training and support, offer multi-year programming, provide opportunities for practice, and produce the following student outcomes: improvements in positive social behaviors, better student-reported senses of identity and agency, and reductions in problem behaviors and emotional distress (CASEL, 2024).

LiiNK Project

Overview of LiiNK

Traditional school settings focus on achieving a required number of minutes per content area each day, with the belief that if children are in class for more time and focus on passing standardized tests every year once they enter third grade, they will be better, more focused children and academically stronger. Over the past 10 years, LiiNK has strived to provide evidence that by allowing children to have more time for physical activity, play, creativity, and high-quality academic content, they will perform better academically than those who are sedentary and put under the pressure of a greater

quantity of academic content.

LiiNK works by altering the way schools and school districts operate. Administrators and teachers attend multiple full-day trainings to learn how to incorporate lessons and activities that will help meet whole-child needs, and district leadership helps create sustainable change by attending discussions throughout the school year. Children transition to four 15-minute unstructured, outdoor play breaks spread throughout the school day in ways that do not disrupt or detract from academic content, and classrooms incorporate 15-minute Positive Action character curriculum lessons every day, usually in the morning.

LiiNK Findings

The LiiNK Project has had a lot of success since its implementation in select schools. After one year of project involvement, LiiNK reports their recess intervention has contributed to a 40% drop in off-task classroom behaviors while children with 30 minutes or less of recess drop about 15% in off-task classroom behaviors (Bauml et al., 2020; Rhea & Rivchun, 2018). Additionally, 14% of elementary aged children shift from the overweight category down to the healthy weight category as assessed by a bioelectrical impedance analysis of body fat percentage, while non-LiiNK-affiliated schools only saw a 2% shift from the overweight category to healthy weight (Farbo et al., 2021). LiiNK children engage in more MVPA, and as a result, have better cardiovascular endurance, motor competence, and muscular strength (Campbell-Pierre & Rhea, 2023; Farbo et al., 2020; Webb & Rhea, 2023; Williams, 2021).

For social and emotional health, LiiNK has found children who received the LiiNK recess breaks exhibited more positive behaviors and affect than control school

children (Clark & Rhea, 2017). Additionally, the LiiNK schools displayed far fewer negative behaviors and affect than their control counterparts (Clark & Rhea, 2017). LiiNK intervention children were more focused within one and a half minutes after entering the classroom from recess, less fidgety, and instructional time became higher quality overall (Lund et al., 2017; Rhea et al., 2018).

Conclusion

Based on the literature, the current study is focused on testing previous findings regarding differences in behavioral and social-emotional outcomes between different demographic factors. Race/ethnicity may be a key focus for disparities in current literature. While the current study only addresses grades K-3, the literature does provide a basis for future studies to explore middle and high school ages using similar classroom and breaktime interventions.

While previous literature has explored the LiiNK intervention (i.e., recess and SEL through positive action) and the CASEL framework separately, none have combined elements from each the way that the current study has. This study focused on the second component of LiiNK, the aim to improve classroom learning experiences through the Positive Action curriculum, which develops social-emotional learning (SEL) (Duncan et al., 2016; Lewis et al., 2015; US Department of Education, 2007). Physical activity and fitness are vital components to whole-child wellness, but SEL health must be addressed as well and one of the best ways to address it is in the school setting.

Research Question

Does District 1 demonstrate greater improvements than District 2 on xSEL subscale assessments across one academic school year?

Hypotheses

H1: District 1 will demonstrate greater improvements than District 2 across the xSEL subscales.

H2: District 1 will demonstrate greater improvements than District 2 by grade and race for all xSEL subscales.

H3: District 1 will demonstrate similar subscale scores as District 2 by sex.

Significance of the Study

This study is significant because of growing concerns children have become increasingly anxious, stressed, aggressive, and depressed. Homicides and suicides are growing exponentially due to the lack of emotional control and healthy social interactions. COVID 19 has exasperated these matters. Focusing on social and emotional health is very important to turn these serious chronic diseases (i.e. obesity, heart disease, diabetes, etc.) and mental health issues around. Unstructured, outdoor play can be a catalyst for developing healthy, whole, resilient children who become healthy, whole, resilient adults.

Assumptions

It is assumed that participating schools are following the guidelines of their LiiNK recesses, whether that be 45- or 60-minutes of unstructured, outdoor play. Additionally, we assume teachers are administering daily Positive Action lessons with fidelity, the xSEL instrumentation used is sufficient to assess children's social and emotional development, and children are responding to the questions with integrity.

Chapter 3: Method

Participants

This study utilized 2,000 children of the total 7,287 available in grades K-3 from eight schools in north and central Texas school districts. Currently, seven schools from one school district in central Texas, and 17 schools from one of the north Texas school districts participate in the LiiNK intervention for which this data is focused. Large racial and socioeconomic differences have been found between the districts, so matching similar schools from each district for comparison proved to be impossible, but participating schools were selected at random before seeing any data connected to this study. Apart from district differences, children were further divided by school reported race categories (Table 1), grade level, and sex. Ethnicity was not available from these schools. Each subgroup (i.e. 3rd grade male, White) had approximately 250 children for a total sample of 2,000 (N=1,000 for District 1 and N=1,000 for District 2).

Table 1 reflects sex, race, socioeconomic status (SES), and English as a second language (ESL) percentages for both districts. The biggest difference between the two districts is the race distribution. District 1 has a more even split between White (37%) and Hispanic (39%) children, whereas District 2 has a predominately Hispanic (72%) population with Black and White children representing 26% of the population. The only other significant difference is District 2 has double the percentage of children eligible for free or reduced lunch as compared to District 1.

Table 1.

District Demographics

District	% Female/Male	% White	% Black	% Hispanic	% Free/Red Lunch	% ESL
1- North Texas	48/52	36.6	14.9	38.9	30.5	11.6
2- Central Texas	48/52	22.2	4	71.8	67.4	11.9

Measures

xSEL

CASEL uses a web-based testing device called SELweb to assess children's social and emotional development, but the assessment tool is called xSEL. There are two versions of the xSEL assessment: xSEL EE (Early Elementary) which assesses Kindergarten through grade 3, and xSEL LE (Late Elementary) which assesses grades 4 through 6. EE and LE programs introduce scenarios or multiple-choice questions from four concepts: emotion recognition (knowing how others feel and responding appropriately), social problem-solving (identifying and solving problems that involve others), social perspective taking (considering what others are thinking and inferring their intentions), and self-control (modulating thought, feelings, and behaviors to achieve a goal). An example of how xSEL EE would test social perspective taking would be to give the child a scenario of two characters speaking to each other and asking the child to answer why a character responded in a particular way. Answering correctly would show the child can take the perspective of the on-screen character and infer why the scenario played out the way it did.

Through SELweb, researchers and educators generate web-based, interactive reports that depict graphs of how children perform compared to their peers. Reports can be generated at the district, school, grade, class, and individual child level during the fall semester, spring semester, or entire school year.

Reliability and Validity of the xSEL Assessment

xSEL Labs tests their competency assessments to ensure scores are both valid and reliable, and scores are based on national norms. SELweb boasts score reliability in the range of 0.80 to 0.90, and reports show confidence intervals, so researchers can see the range of scores a child will likely achieve if they repeat the test. McKown (2019) found that internal consistency and temporal stability were sufficiently high for understanding children's strengths and weaknesses in the tested areas. When factor structure and criterion-related validity of subscales and overall scores were tested, assessment modules fit a theoretically coherent factor structure and SELweb assessment scores were positively related to teacher-reported SEL scores (McKown, 2019; Russo, 2018).

Procedures

IRB approval was granted (#1801-065-1801) for the data collection and assessments. Currently, a memorandum of understanding (MOU) exists between both school districts and the intervention university. The participating school districts are required to provide the children with four 15-minute recess breaks spread throughout each day. Additionally, homeroom teachers are expected to deliver a daily character development lesson provided by the Positive Action curriculum package. Determining SEL improvement over a school year as a result of teaching the Positive Action curriculum daily is assessed via SELweb at the beginning and end of the school year. All

children across both school districts are included within the MOUs specifically for xSEL data. Once the children complete the SELweb assessments, xSEL receives their scores and sends them to LiiNK for further analysis.

The most common practice model for using SELweb, as well as the way this study utilized it, consists of five steps. The first step is to assess baseline SEL skills at the start of the school year before classroom interventions. After the initial test, researchers or educators review their students' data and decide the best course of action for focusing the SEL program resources. The third step is to incorporate classroom interventions to develop and enhance SEL skills. Near the end of the spring semester, the children are reassessed via SELweb to measure their progress. The final step is to review data once again to reflect and plan for the following school year.

Participating schools always set dates in the fall and spring semesters for children to be in the computer lab to complete the xSEL assessments. Each child has an individual ID number used to track their individualized data, so scores are not associated with children's names to ensure anonymity when being analyzed by the researcher. The xSEL assessment collected during the 2022 fall semester acted as a pre-test to measure the children's baseline social and emotional needs and strengths, and the xSEL data that was collected in May 2023 measured their progress over the school year. The LiiNK director received the results from both districts by July 2023.

Once the scheduling week was established, the teachers then set up a day and time for their students to complete the xSEL grade level assessment. Once they entered the computer lab, each child would sit at a computer with headphones on and interact with multimedia tasks that aim to assess their social-emotional learning skills via the four

subscales: emotion recognition, social problem-solving, social perspective taking, and self-control. For example, when measuring emotion recognition, children will look at various faces on a screen and determine what each person is feeling. For social perspective taking, children will view a scenario and respond to questions regarding why characters said or did certain things. The entire xSEL test takes approximately 25-40 minutes and must be completed in one sitting. Once the children complete their assessment, they may return to class. Although the Fall assessment was labelled as a baseline measure, the children received the Positive Action lessons from the first day or school through the end of the school year when the Spring assessment would be delivered again for improvement determination.

Statistical Design

The dependent variables (DV) were the four subscales (emotional recognition, social perspective taking, social problem-solving, and self-control) and overall score, which are predicted to vary based on the independent variables described. The independent variables (IV) are district, age, race, and sex. Due to having multiple IVs and more than two categories for xSEL subscales to assess, this study utilized a multivariate analysis of variance (MANOVA) statistical analysis. Scores for all groups were compared between the fall and spring semester and subtracted from one another to create a change score (spring scores minus fall scores). Score differences were also compared within and between district, grade level, race, and sex.

CHAPTER 4: RESULTS

The following results are based on change scores for the xSEL subscales at Time 1 (Fall 2022) and Time 2 (Spring 2023) for both school districts who participated in The LiiNK Project during the 2022-2023 school year. All schools provided their children with 60 minutes of recess and a 15-minute character development lesson daily.

Descriptive Statistics

A total of 2,000 grades K-3 children (1,000 from each district) were randomly selected from the x-SEL dataset total number, N=12,700 during the 2022-2023 year. Four schools (N=250 per school) from each of the two school districts were randomly selected, and only children who had data from Time 1 and Time 2 tests were randomly selected for the data. Part of the randomized process of selecting 250 children per school was securing equal numbers of children by sex and grade. Descriptive statistics were similar between the two school districts by grade and sex, but their racial demographics were quite different. Table 2 reflects the sex, race, and grade percentages for each district. Figure 2 shows the race distribution by district and in total. District 1 was more equally distributed between White (28.4%) and Hispanic (36.3%) children, whereas District 2 was heavily represented by Hispanic (77.8%) children. Both districts had representation of Black and Other race categories as well, but much less representation in District 2 than in District 1.

Figure 1.

Race Distribution of the Districts

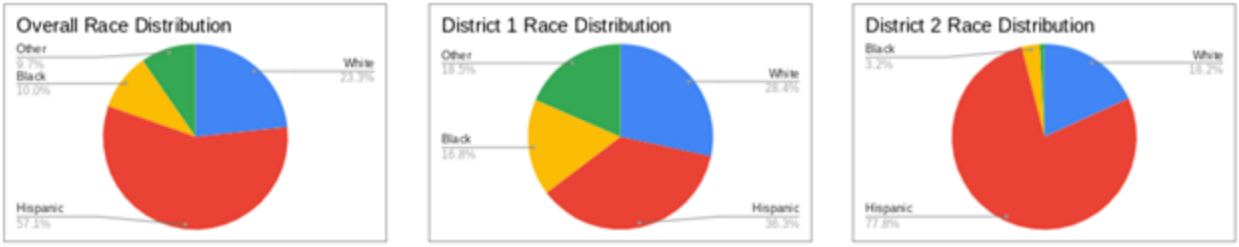


Table 2

District Descriptives by Sex, Race, and Grade

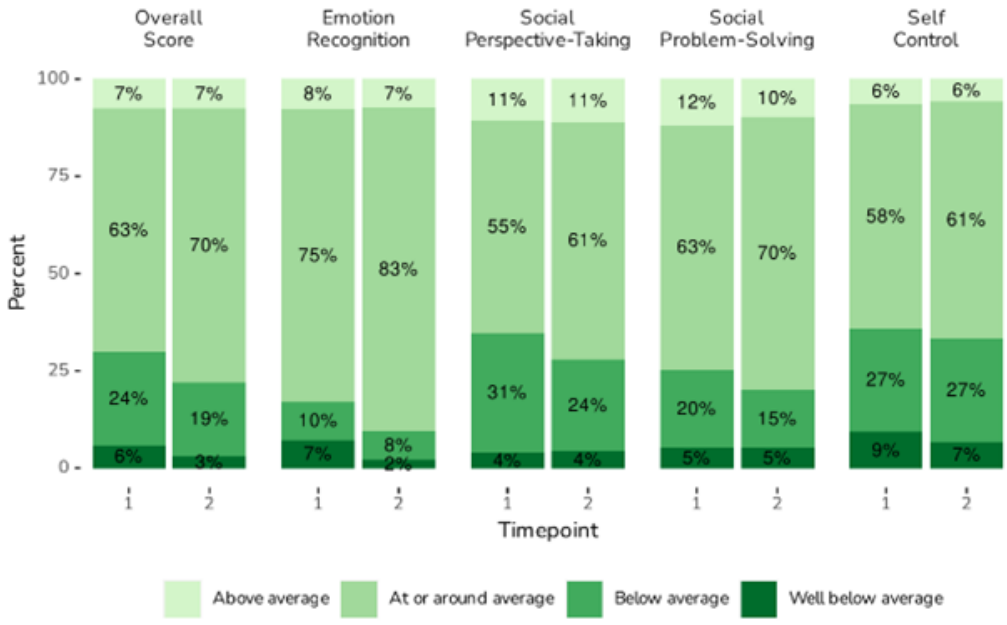
Variable		Total (N)	District 1 (N)	District 2 (N)
Sex	Female	997	509	488
	Male	1003	491	512
Race	White	466	284	182
	Hispanic	1141	363	778
	Black	200	168	32
	Other	193	185	8
Grade	Kindergarten	439	232	207
	First	489	237	252
	Second	549	270	279
	Third	523	261	262

Figures 2 and 3 reflect the change score percentages over time for all 5,540 children in District 1 and the 1,747 children in District 2 who took the SELweb test at

Time 1 and Time 2. For all of the subscales, there was a higher percentage of children in both districts scoring at or above average at Time 2 compared to Time 1. Additionally, both districts reflected improved scores from Time 1 to Time 2. When comparing the two districts from Fall to Spring, District 1 showed a higher percentage of children scoring at or above average on all subscales than District 2. The Overall score was an accumulation of all of the subscale scores and was indicative of the children's overall SEL skills; District 1 improved this metric from 70% to 77% in the at or above average range by the end of the school year, whereas District 2 improved this metric from 67% to 71%. The subscale change scores varied by District from 1% to 6% at Time 2, reflecting District 1 with the higher change score percentage.

Figure 2

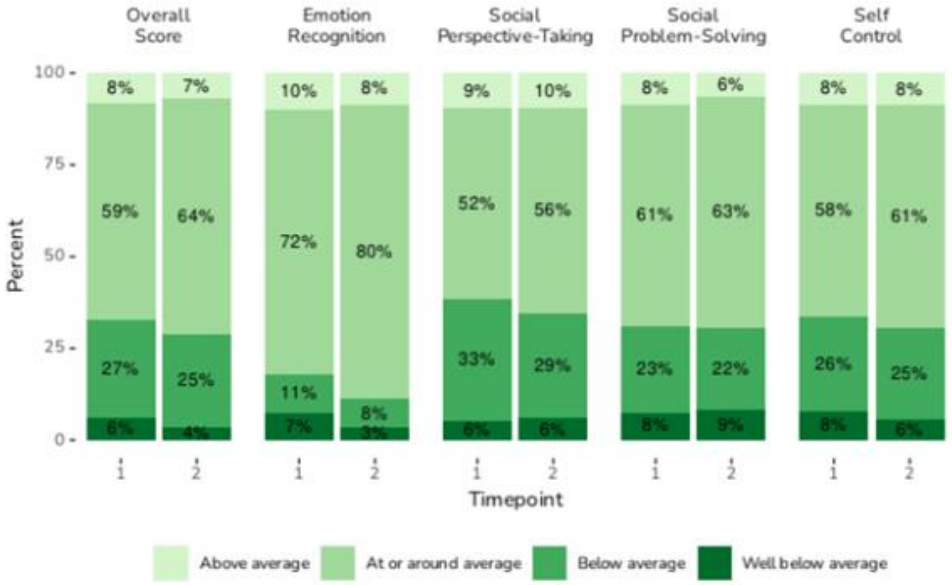
District 1 Change Score Percentages by Category



Above average: > 115; At or around average: 90-114; Below average: 70-89; Well below average: < 69

Figure 3

District 2 Change Score Percentages by Category



Above average: > 115; At or around average: 90-114; Below average: 70-89; Well below average: < 69

Research Question and Hypotheses

The research question examined Districts 1 and 2 children from grades K-3 xSEL subscale score differences achieved. Hypothesis 1 stated District 1 would show greater xSEL subscale improvements over District 2. Hypotheses 2 and 3 stated District 1 would show greater xSEL subscale improvements over District 2 by race, grade, and sex. A Multivariate Analysis of Variance (MANOVA) analyzed the four x-SEL subscale (DVs) change score differences for district by grade, race, and sex. The MANOVA revealed a significant model effect $F(15, 5488.39) = 3.48$, $p < .001$. Table 3 reflects each of the main effect and interaction effect differences for the four x-SEL subscales. District x grade was the only significant interaction effect. Therefore, Hypotheses 1 and 3 were accepted, while Hypothesis 2 district x race was rejected; district x grade was accepted.

The only main effect change score differences were for district and grade. Each of the significant interaction and main effects reflected different subscales for each analysis.

The interaction effect of District x Grade was the most important finding of the study. Three of the four subscales reflected district by grade differences: Emotion Recognition ($p=0.002$), Social Perspective Taking ($p=0.023$), and Social Problem-solving ($p<0.001$). The Overall score ($p<0.001$) was also part of the interaction effect differences. Self-Control was not a significant interaction effect >.05).

The interaction effects as defined in Table 3 and shown in Figure 4 showed the following: for Overall change scores, kindergarteners in District 1 and District 2 scored significantly differently from each other ($p=0.01$). Additionally, first grade scored significantly different between the two districts ($p=0.008$), as did third grade ($p=0.002$). While kindergarteners and first graders from both districts improved their Overall scores, third graders from both districts scored worse at Time 2.

Table 3

District, Grade, Sex, and Race by x-SEL Subscale and Overall Change Scores Main Effects and Interaction Effects

Effect/Interaction					
Overall Model	F (15, 5488.39) = 3.48, p < .001				
Main Effects	Overall	Emotional Regulation	Social Perspective Taking	Social Problem Solving	Self Control
Group	F(3, 1992)= 2.41, p=0.04	F(1, 1992)= 3.63, p=0.06	F(1, 1992)= 6.33, p=0.01	F(1, 1992)=0.44, p=0.51	F(1, 1992)= 0.44, p=0.51
Grade	F(3, 1992)=86.94, p<0.001	F(3, 1992)=87.63, p<0.001	F(3, 1992)=23.70, p<0.001	F(3, 1992)=7.45, p<0.001	F(3, 1992)=21.54, p<0.001
Sex	F(1, 1996)= 1.42, p=0.23	F(1, 1996)= 1.26, p=0.16	F(1, 1996)= 0.04, p=0.07	F(1, 1996)=0.01, p=0.73	F(1, 1996)=2.64, p=0.18
Race	F(6, 1988)= 0.57, p=0.75	F(6, 1988)=0.21, p=0.98	F(6, 1988)= 1.33, p=0.24	F(6, 1988)=0.36, p=0.90	F(6, 1988)=0.23, p=0.97
Interaction Effects					
Group x Sex	F(1, 1996)=0.44, p=0.51	F(1, 1996)=0.06, p=0.81	F(1, 1996)=0.63, p=0.43	F(1, 1996)=0.79, p=0.37	F(1, 1996)=1.93, p=0.17
Group x Grade	F(3, 1992)=7.43, p<0.001	F(3, 1992)=4.82, p=0.002	F(3, 1992)=3.17, p=0.02	F(3, 1992)=8.00, p<0.001	F(3, 1992)=1.42, p=0.24
Group x Race	F(4, 1988)=0.95, p=0.44	F(4, 1988)=1.14, p=0.34	F(4, 1988)=1.46, p=0.21	F(4, 1988)=0.29, p=0.89	F(4, 1988)=0.30, p=0.88

Figure 4

District x Grade Interaction Effect on Overall Change Scores

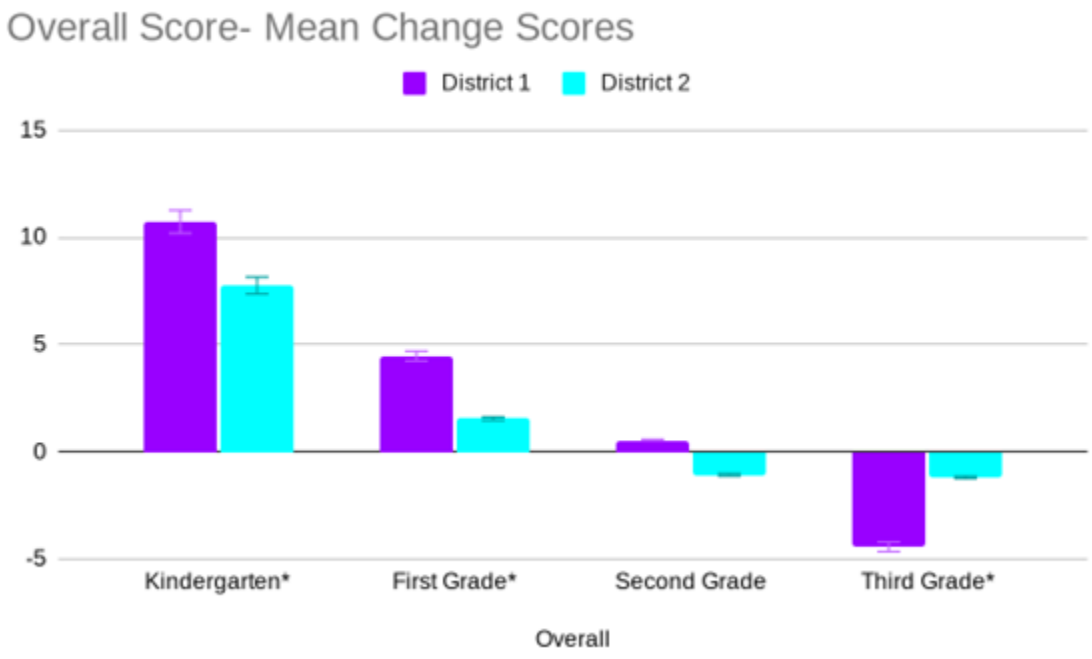
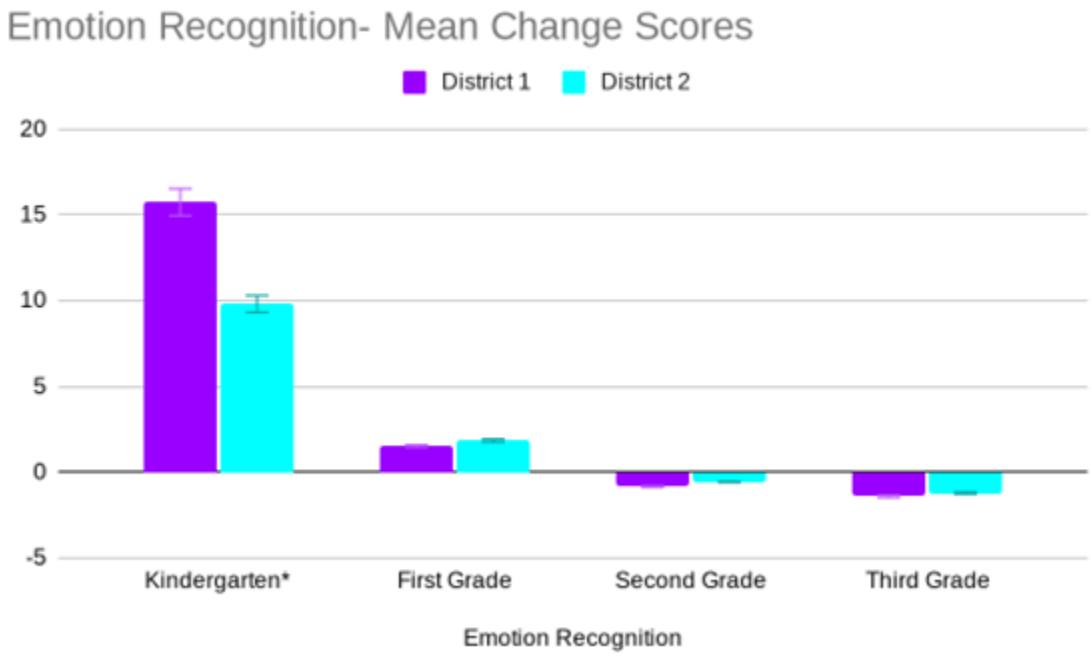


Figure 5 reflects the Emotion Recognition subscale change scores. Kindergarteners were the only significant grade difference between districts ($p<0.001$). Kindergarteners from District 1 improved significantly more from Fall to Spring than District 2. Second and third graders from both districts were worse in Emotion

Recognition scores from Time 1 to Time 2, although not significant.

Figure 5

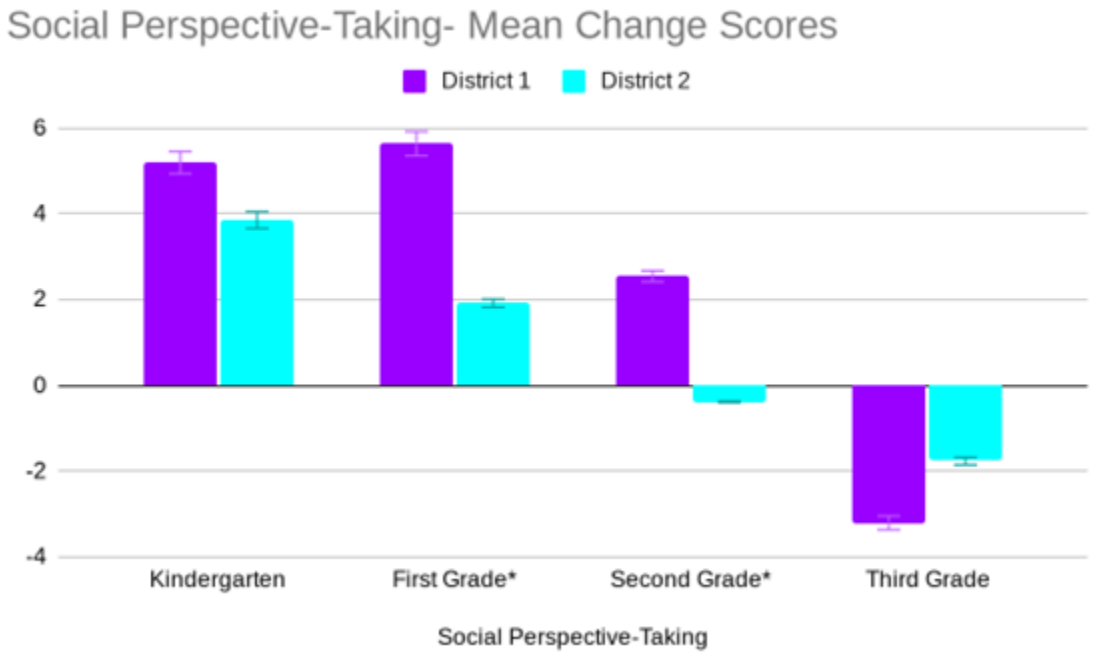
District x Grade Interaction Effect on Emotion Recognition Change Scores



For the Social Perspective Taking subscale, Figure 6 shows District 1 first and second graders were significantly different than District 2 first and second graders. First graders in both districts improved although District 1 children improved more (p=.005). District 2 second graders scored lower in the spring while District 1 second graders improved (p=.018).

Figure 6

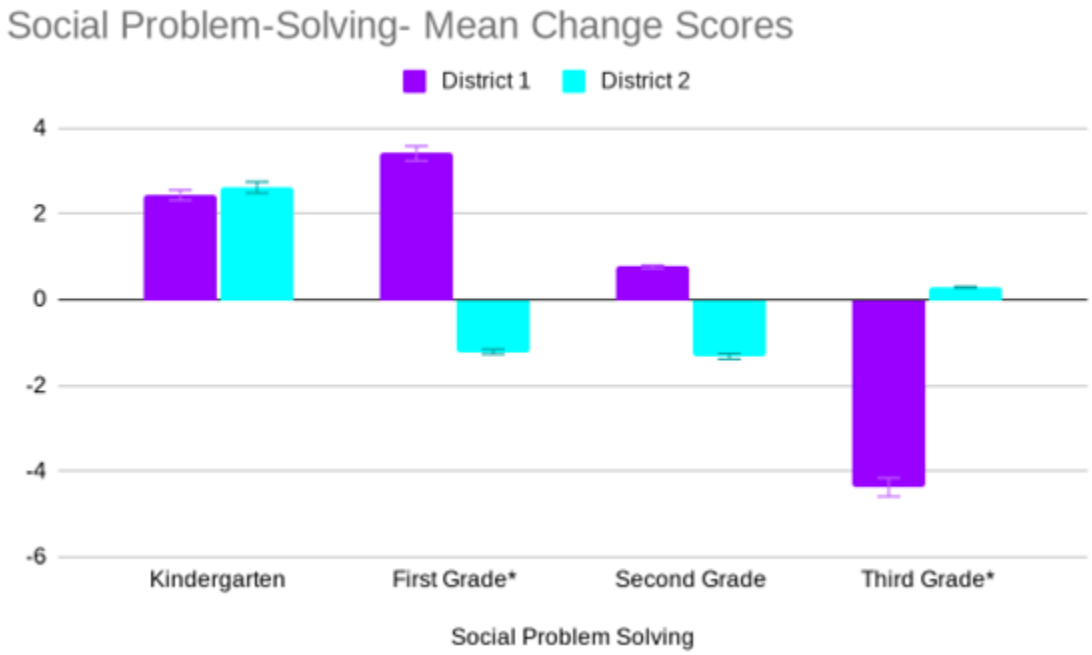
District x Grade Interaction Effect on Social Perspective Taking Change Scores



For the Social Problem-Solving subscale, Figure 7 shows first graders and third graders from District 1 were significantly different from District 2 first graders and third graders. First graders from District 1 improved their scores while those from District 2 scored lower at Time 2 ($p=0.001$). Contrarily, third graders from District 1 scored lower at Time 2 while District 2 third graders improved ($p<0.001$).

Figure 7

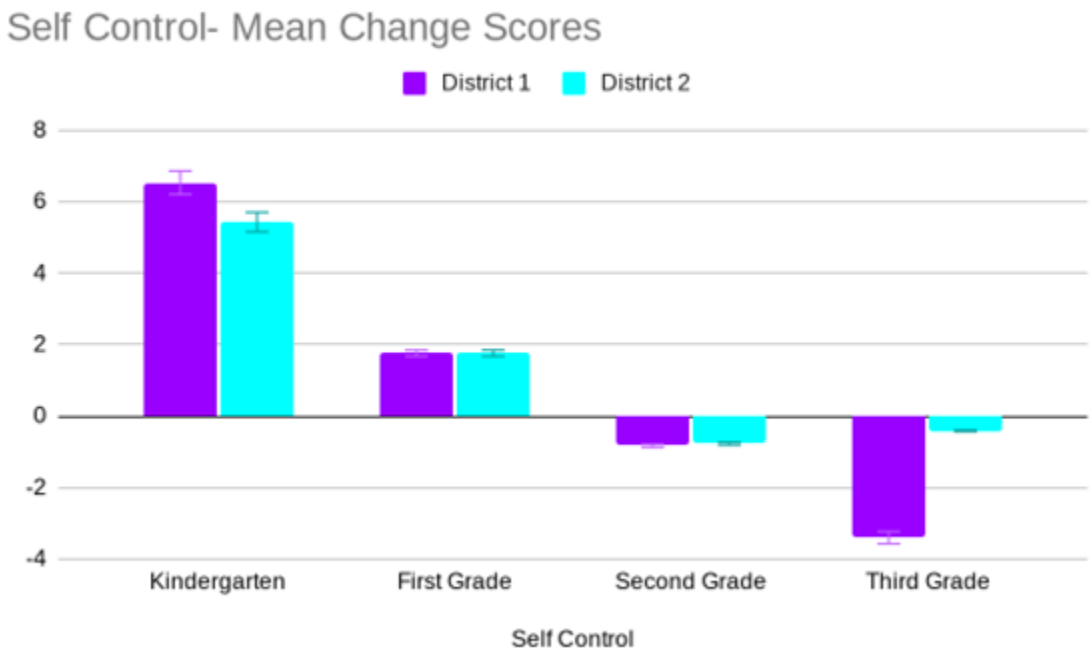
District x Grade Interaction Effect on Social Problem-Solving Change Scores



For the Self Control subscale, Figure 8 shows third graders from District 1 scored significantly different from third graders in District 2 (p=0.037). Both districts' third graders scored worse at Time 2 than Time 1, but District 1's scores were significantly worse.

Figure 8.

District x Grade Interaction Effect on Self Control Change Scores



CHAPTER 5: DISCUSSION

This study investigated the effects of Positive Action on the social and emotional development of K-3 children from two school districts who received 60-minutes of recess every day as part of the LiiNK Project. The LiiNK Project promotes extra recess time and character development without disrupting classroom time. LiiNK schools, such as the ones in the current study, have four, 15-minute recess breaks spread throughout the day and a daily 15-minute character development lesson led by the homeroom teacher of each class. Both districts' children received the same amount of recess as well as their Positive Action character lesson each day, but there were many significant group differences for SEL test performances.

The descriptive statistics will be discussed first, especially as they pertain to district differences. Next, xSEL subscale score differences between the two districts will be analyzed, and then the reasons why our initial hypotheses were or were not supported will be considered. Finally, the limitations of the study will be addressed and ideas for future research will be provided.

Descriptive Statistics

The participants in this study were K-3 children from a north Texas and central Texas school district who participated in the LiiNK Project. Their ages ranged from five to nine years. The sample was split equally by district, nearly the same for sex, and reasonably for grade. Each grade level comprised between 20-28% of each district's overall sample. The more difficult variable to balance was race. Initially, the intent was to have matching samples in terms of each variable, but the districts vary so much by racial composition that this proved to be impossible without greatly misrepresenting the

districts.

Research Question: District Differences

Across both districts, the subscale with the most improvement from Fall 2022 to Spring 2023 was emotion recognition. One reason for the improvement in emotion recognition could be that the children had a lot of room for growth. During the COVID-19 lockdown, children did not have as much exposure to others as they had prior to COVID-19, so they may have started the school year with fewer skills than normal for facial expression recognition and the skills necessary to read people's body language. When children were exposed to others, such as when they returned to school, they likely saw everyone wearing masks, so they still did not have the opportunity to practice reading facial expressions. The daily Positive Action lessons may have given children the boost they needed, hence the most improvement on this subscale.

District x Grade

The interaction effect was the most significant finding of this study. The district x grade interaction means that the effect of grade level on subscale scores depends on which district the child was associated. For example, kindergartners from District 1 scored significantly different from other grades within their district and from District 2 children of various grade levels. In this study, grade was used to represent age. Generally speaking, Kindergartners and first graders showed similar improvements across the school year, while second and third graders showed similar declines in scores. It could be that the xSEL test is not developmentally appropriate for second and third graders; perhaps they are too old for the question types in the Early Learning tests. It is plausible that the 8- and 9-year-olds are bored by the easy questions and are clicking answers at

random so they can finish the test and go back to class. It is interesting that children as old as nine are taking the same test as children as young as five. When reconsidering Piaget's stages of cognitive development, Kindergarten and first graders are still in the preoperational stage, where they are egocentric and struggle to see situations from the perspective of others. Second and third graders are in a different stage of development, the concrete operational stage, which marks the end of egocentrism. In this stage, children are also using logic to solve everyday problems. When such differences exist between these grades, the score disparities make more sense.

Another factor to consider is how much change happened in Kindergartners from fall to spring. For many of the subscales, kindergarten saw the greatest change score, which could be attributed to a lack of real baseline knowledge prior to formal education. Comparing this result with John Locke's tabula rasa concept (Locke, 1689), perhaps kindergartners enter school as essentially blank slates, so they have much more room to grow and develop social and emotional skills. They improve so much in the first year, that all of the other grade levels' improvements pale in comparison.

Second and third graders may also have not received as much direct Positive Action instruction as their younger peers because their classroom teachers may have been preoccupied with preparing the children for standardized state tests. Texas requires that children in grades 3-12 take the State of Texas Assessments of Academic Readiness. Third graders prepare for the state exams throughout the school year, and take the math and reading STAAR tests at the end of the spring semester (Muniz, 2019). The STAAR tests are stressful for children, but there is also a lot of pressure on teachers to ensure that their students perform well; in Texas, their pay depends on it (Griffey, 2021). Teachers

may be pushing STAAR preparations to achieve merit-based pay bonuses for high scores, or they may be trying to avoid dismissal from their teaching positions (Charles Butt Foundation, 2023). It is possible that teachers felt they had more of an incentive to prepare their second and third grade children for state assessments than to engage in Positive Action character curricula, where there is no monetary or occupational penalty for skipping lessons.

District x Race

There is no doubt that the districts were different, but the lack of interaction effect of district x race shows race may not the underlying reason. While the north Texas school district performed better on the subscales most of the time, this was not due to race differences. Although we were unable to collect data on children's family income due to confidentiality reasons, we suspect that some of the score differences may be attributed to differences in available resources for the children as a result of the school and community representing a Title 1 ranking. A recent study examined the interaction of race/ethnicity and SES in predicting social and emotional skills in middle school children and found that at low SES levels, White children tended to have lower SEL scores than children of color (Kuo et al., 2020). As SES levels increased, White children tended to have higher scores relative to the minority groups (Kuo et al., 2020). The study's results imply that race is less important when comparing SEL skills than SES is, and society tends to stereotype races into SES levels.

District x Sex

Within and between both districts, males and females did not differ significantly on subscale scores. This is such an early stage of life that we did not expect differences

here yet. Perhaps during and after puberty, we may expect differences in social behaviors and emotion recognition as adolescents begin to explore gender roles. One recent study supported these findings showing subscales such as Creating Relationships, Relationship Quality, and Responsible Decision Making were more similar by sex through 10 years of age but grew increasingly different through the teenage years before becoming similar again near age 18 (Ross et al., 2019).

Limitations

One factor that this study could not control is fidelity. There is no way to know for sure if the homeroom teachers were delivering the character development lesson every day. Even if a self-report questionnaire of fidelity was given to the teachers, there is no guarantee that they would be completed with full honesty and disclosure. Positive Action lessons are intended to be delivered every day starting on the first day of school, but these directions may have been ignored and lessons may have been pushed back on busier days. It is vital that the children have established patterns immediately during the school year to ensure they are getting the full benefits of the curriculum.

Another limitation of this study is that there is no way to know if all the children were trying on every question, or if some became bored or tired and decided to click through answers to finish the online test quicker. The Positive Action daily lessons may be helping their SEL growth tremendously, but the tests may not be reflecting this if the children are racing each other and clicking answers to get back to classroom activities as soon as possible. If this happened to be the case for some participants, there would be no way to know if their true social and emotional abilities were captured by the results.

Future Directions

Future researchers should continue to analyze xSEL scores every year to ascertain if the possible effects of the COVID-19 lock-down phase out and average scores change. Another useful development would be to find a way to periodically check on the classrooms and teachers to ensure that they are faithfully delivering the daily character lessons. Perhaps anonymous questionnaires could be sent out multiple times throughout the semester to ask how many times a week the teachers are delivering the lessons. Anonymity could assuage concerns about occupational repercussions of neglecting the lessons, and the teachers would feel more comfortable answering honestly.

Another future direction should consider the production of a more age-appropriate test for second and third graders. This study's results could hint that the Early Elementary version of the test is no longer developmentally appropriate for these two grades. Considering that the youngest child taking this version of the test was only five and the oldest was nine, it does seem possible that such a range could contain children of quite varying levels of social and emotional development. Perhaps an "Intermediate Elementary" xSEL test could be created to bridge the possible test inequalities without pushing the second and third graders into the Late Elementary group, which could be too advanced.

Conclusions

From the data collected in this study, it is clear that despite district differences, children from diverse backgrounds can and do benefit from daily character lessons and a setting that enables them to practice their SEL skills. The Positive Action daily lessons are effective for males and females, children of different races and ethnicities, and are

tailored to meet the developmental needs of different age groups. Though past research on the SELweb assessment has shown reasonable reliability and validity on reflecting SEL skills in elementary children, the results of this study suggest it could use modifications to better suit middle-elementary grades. Though one district improved their scores more than the other over the course of a year, both districts benefited from the LiiNK interventions. The differences may be attributed to disparities in resource allocation between the two districts.

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APPENDIX A
Piaget's Stages of Cognitive Development

Piaget's Stages of Cognitive Development

Stage	Age range	What happens at this stage?
Sensorimotor	0-2 years old	Coordination of senses with motor responses, sensory curiosity about the world. Language used for demands and cataloguing. Object permanence is developed.
Preoperational	2-7 years old	Symbolic thinking, use of proper syntax and grammar to express concepts. Imagination and intuition are strong, but complex abstract thoughts are still difficult. Conservation is developed.
Concrete Operational	7-11 years old	Concepts attached to concrete situations. Time, space, and quantity are understood and can be applied, but not as independent concepts.
Formal Operational	11 years old and older	Theoretical, hypothetical, and counterfactual thinking. Abstract logic and reasoning. Strategy and planning become possible. Concepts learned in one context can be applied to another.

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APPENDIX B
Erikson's Psychosocial Stages

Erikson's Psychosocial Stages

Stage	Basic Conflict	Virtue	Description
Infancy 0–1 year	Trust vs. mistrust	Hope	Trust (or mistrust) that basic needs, such as nourishment and affection, will be met
Early childhood 1–3 years	Autonomy vs. shame/doubt	Will	Develop a sense of independence in many tasks
Play age 3–6 years	Initiative vs. guilt	Purpose	Take initiative on some activities—may develop guilt when unsuccessful or boundaries overstepped
School age 7–11 years	Industry vs. inferiority	Competence	Develop self-confidence in abilities when competent or sense of inferiority when not
Adolescence 12–18 years	Identity vs. confusion	Fidelity	Experiment with and develop identity and roles
Early adulthood 19–29 years	Intimacy vs. isolation	Love	Establish intimacy and relationships with others
Middle age 30–64 years	Generativity vs. stagnation	Care	Contribute to society and be part of a family
Old age 65 onward	Integrity vs. despair	Wisdom	Assess and make sense of life and meaning of contributions

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APPENDIX C
Positive Action Kindergarten Sample Lesson 74©

Lesson 74

Purpose: **To introduce the positive action for getting along with others by treating them the way you like to be treated.**

Materials Needed	Crayons or markers
Materials Provided	Picks-It and Nix-It puppets; "Code of Conduct" Visual Aid 74-4-K

Procedure

Teacher *Prepare to use puppets.*

Picks-It: Good morning, children. I hope you're excited to be on Getting Along with Others Island. Nix-It and I certainly are! There will be a great deal that you can learn here.

Nix-It: Picks-It, don't the boys and girls already get along with each other quite well?

Picks-It: Yes, they do, most of the time, but there is much more they can learn. Getting along with others is very important to all of us.

Nix-It: Isn't getting along with others just trying to be nice to each other?

Picks-It: Yes, I suppose that's right, but there are some skills that everyone can learn to get along with other people better. In the next couple of weeks, the children are going to learn about respect, empathy, friendliness, kindness, cooperation and positiveness.

Nix-It: Wow! Picks-It, that sounds hard. I don't even know what some of those words mean.

Picks-It: You may not know now, but you will soon. You are going to be learning many of the same things. We'd better get going so the children can also begin to learn. We'll be back in a few days to see how they are doing.

Teacher *Remove puppets.*

Say Boys and girls, some of the words Picks-It used are probably words you don't know either, but they are very important words to understand. If we want others to treat us well, then we have to learn to be positive in the way we treat them.

Today we're going to create a Code of Conduct for ourselves and the classroom. What is a Code of Conduct? It is a set of rules for how we should all act. Think about how you would like to be treated by other people. If we make rules that tell how we like to be treated, we will have a set of rules that we can all live by.

Teacher *Place the Code of Conduct poster where all can see it.*

Say When you are learning or playing at school, how do you want other children to treat you?

Teacher *After receiving and discussing the first answer, ask the children: "What are some other ways you like to be treated?"*

As the children give answers, decide in which of the six categories that kind of treatment might fit. If a child mentions sharing as a positive way of treating others, for instance, point to the "cooperation" picture and tell the corresponding story. Continue to do this until all six pictures have been pointed out and all six stories have been told. Some of the answers will fit already mentioned categories. If this happens, simply say, "Very good. That's another way we can be friendly." Or, you may say: "Yes, that's also a way of showing kindness."

"Empathy" and "respect " are abstract and difficult terms for kindergarten children. They may not give an answer that seems to fit either category. In that case, use the examples below as a way of helping the children understand each term.

The following are the stories to go with each positive behavior:

- **Respect:** Most of the children in the class didn't pay much attention to Rick because he was very quiet, but Ronnie said, "If you talk to him, he'll tell you interesting things about horses. He's just shy."
- *(Traits of Respect: Seeing the good in others; listening; saying "please" and "thank you.")*
- **Empathy:** Sara was new at the school. She didn't know anyone, and she felt frightened and lonely. Patricia went over to her and said, "Would you like me to show you where everything is?"
- *(Traits of Empathy: Thinking how others feel; putting yourself in someone else's situation.)*
- **Friendliness:** Everyone liked James. He smiled a lot, and he always said hello. He knew everyone's name, and he played with every boy and girl in the class.
- *(Traits of Friendliness: Smiling; saying hello; treating everyone the same.)*
- **Kindness:** Erica noticed that Blaine had dropped his crayon and couldn't find it. "Here it is," she said, and she picked it up for him. "That's a good picture," she told him.
- *(Traits of Kindness: Helping others; making others feel good about themselves.)*
- **Cooperation:** Blaine saw that Erica was looking for something. "What did you lose?" he asked. She said she couldn't find her scissors. "You can use mine," Blaine said.
- *(Traits of Cooperation: Sharing; working and playing well with others; not always having to get your own way.)*

- **Positiveness:** Jeff was upset because he had struck out when he tried to hit the baseball. Rachel said, "That's okay, Jeff. You're a good hitter. You'll do better next time."
- *(Traits of Positiveness: Feeling good about ourselves; making others feel good about themselves.)*
- *Make sure that every picture has been pointed out and that each story has been told. Then review the concepts, repeating the word for each picture.*

Say Children, remember, these are the ways you like to be treated. If you want other boys and girls to treat you according to our Code of Conduct, you must be willing to treat them in the same way. In the next few days we'll be learning much more about each new word we have learned so that we can remember them. Let's all try to live by this Code of Conduct. We'll leave this poster on the wall to remind us of our rules.

Teacher *Post the Code of Conduct poster on the wall and refer to it when appropriate throughout the year.*

APPENDIX D
Positive Action Third Grade Sample Lesson 74

LESSON 74 • UNIT 4 • GRADE 3

GETTING ALONG WITH OTHERS USING SOCIAL/EMOTIONAL POSITIVE ACTIONS

Purpose: To introduce the positive action of looking for the good in others.

Materials Needed: None

Materials Provided: "See-Good Glasses" 74-4-3 (one for teacher)

Procedure:

1) SAY, "Many people wear glasses. Why?" *(To see things more clearly, things they may not have noticed before.)* "For people who have trouble seeing, wearing glasses is a must."

2) *TEACHER: Hold up "See-Good Glasses."*

   SAY, "We will call these our "See-Good Glasses" because today's lesson is about the importance of **seeing the good in others**. We should always look for the positive in our friends. Everyone is good in some way but often we don't take the time to look for it. Looking for the good in others is a positive action of fairness. Fairness means to treat others with justice, and it is just of us to look for the good in others instead of the bad. Not only do you appreciate your friends more when you do but you appreciate yourself more, too."

3) *TEACHER: Hold the glasses before your eyes and, using your students' names, say one positive thing about each student until you have complimented every child in your class.*

   Examples:

   - I see Tyron's neat work.
   - I see Zoe's sense of humor.
   - I see Roberta's talent for singing.
   - I see Eduardo's friendliness.

WORD OF THE WEEK ALERT!

Fairness
To treat others with justice.