EFFECTIVENESS OF A SOCIAL SKILLS CURRICULUM ON PRESCHOOL
PROSOCIAL BEHAVIOR AND EMOTION RECOGNITION

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ABSTRACT

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Preschool children in public school programs are expelled at three times the rate of their K-12 peers. Research demonstrates a decreased emphasis on social-emotional skill development in preschool, despite high incidences of problem behaviors. The present study investigated the effectiveness of a commercially available social skills curriculum on preschoolers’ social-emotional development, specifically their pro-social behaviors and emotion recognition. Results showed that students who participated in the social skills curriculum increased prosocial skills and ability to visually recognize emotions in others. While statistical measures indicate that the intervention did not have a statistically significant impact on student emotion recognition and prosocial behavior, anecdotal reports from participating teachers indicated that the intervention was highly beneficial to participating students. Further, the curriculum had a high level of treatment acceptability.
by participants’ teachers. Implications regarding social emotional curriculum and preschool students’ prosocial skill and emotion recognition development are provided.
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CHAPTER I
INTRODUCTION

Preschool is a unique time in a child’s life. With an increased vocabulary and mobility, preschool age children find themselves able to do things that were not possible during infancy. By the age of four, a child’s brain is 85% of the size of an adult’s brain (NCITF, 2014). Because of their increased brain size, preschool age students are better able to functionally communicate with those around them.

Preschoolers’ brains are growing at a rapid rate, thus cognition changes rapidly as well. At this age, it is typical for preschool students to be egocentric, whereby they see the world mainly from their point of view (Trawick-Smith, 2003). This is a typical trend in preschool development; thus, many preschool students fail to fully recognize emotions in peers and adults. Given preschoolers’ egocentrism and limited ability to fully communicate their own emotions, preschool students may turn to negative physical behaviors such as biting and hitting (Trawick-Smith, 2003). These behaviors can be problematic, and may even place teachers, school staff, and other students in danger.

Expulsion rates for preschool students have grown in recent years. In fact, preschool students are three times as likely to be expelled from school as K-12 students (Morgan, 2012). In order to curb this rate, research suggests that students learn social skills in an age-appropriate manner. Hall, Jones, and Claxton (2008) report that although social skills play a crucial role in academic success and progress, programs and curricula
targeting this area of development are not commonly included in formal preschool curricula. Currently, many published curricula are available for implementation in the classroom (Powell & Dunlap, 2009); however, little research demonstrates the efficacy of these programs on improving emotion recognition in preschool students. Studies have examined the efficacy of social skills curricula on kindergarten students (Arda & Ocak, 2012); little research exists on preschool children.

The current study investigated the efficacy of a published curriculum targeting preschool age students’ emotional recognition. Promoting Alternate Thinking Strategies (PATHS) is a social-emotional curriculum designed to reduce behavior and emotional problems in preschool children, as well as to enhance their social and emotional competence (Hughes & Cline, 2015). This study investigated the impact of the program on preschoolers’ emotion recognition and prosocial behaviors.
CHAPTER II
LITERATURE REVIEW

The first section of this literature review explores and summarizes the physical, cognitive, social, and emotional growth of preschool age children. For the purpose of this project, “preschool” is defined as children between the age of three and five, prior to entering kindergarten. The next section focuses on communication skills and problem behaviors--such as biting and hitting--that occur when a child is unable to verbally communicate his or her needs and feelings. The literature review then explores the recent trend of expulsions in preschool settings, including the frequency and possible causes. The literature concludes with a review of current available social-emotional curricula for the preschool population.

Preschool Development

In the first three to four years of life, children grow at rapid rates. Each year is marked by significant changes in not only physical stature, but also in cognition and basic thinking as well as reasoning abilities. Preschool age children can functionally communicate with those around them, allowing them the opportunity to form more meaningful relationships with peers and adults.
Physical development. Preschoolers grow physically according to general universal patterns. Children in this age range tend to grow at a much slower rate than they did as infants. During infancy, children grow at a very rapid rate. However, in the preschool years, a child’s height, weight, and muscle strength increase at a slow yet steady rate (Trawick-Smith, 2003). On average, it is expected that a preschool age child will grow two to three inches per year and will gain about four to five pounds in the same year (Kaneshiro, 2014).

Preschoolers’ centers of gravity shift to the lower half of the body, specifically the area near their belly buttons. Because of this change, they can complete physical tasks that were once difficult to do a year or two before (Haywood & Getchell, 2001). Preschool age children typically have all 20 of their baby teeth by the age of three, and typically developing children have 20/20 vision by the age of four. By the age of three/four, children sleep 11-13 hours a night, and usually do not need a nap during the day (Kaneshiro, 2014).

Brain and cognition development. Not only are preschool age children going through many physical changes, their brains and cognitive abilities are also growing and expanding. An infant’s brain is 25% of the size of an adult brain, and by the age of three, the brain has grown to 80% of the size of the adult brain (NCITF, 2014). According to Piaget, the preschool years are an important period of cognitive transition. Children begin to think beyond what is physically in front of them and conceptualize objects that are not immediately in front of them. During the preschool years, Piaget described a child’s thinking as shaped by an environment that has many sensory experiences (Trawick-
Smith, 2003). Piaget concluded that during the preschool years, a child’s thought patterns could be classified as “preoperational thought.”

Preoperational thought is a broad description of preschool age thought that is composed of a few defining characteristics. The first characteristic is egocentrism. During the preschool years, children are egocentric; they believe that they are the center of the universe (Crosser, 2005). To a preschool child, his/her own personal experiences are far more important than those of another child or adult. Egocentrism also makes seeing the perspectives of another difficult for children. Children at this age are more apt to believe their views and cognitions are the same as those around them.

Preoperational thinking is also marked by centration; preschool age children tend to focus on one aspect of a problem or situation. In the preschool years, when conflict arises, children often focus on one aspect of the problem at hand. For instance, if Anna hits Eli, and Eli hits Anna in return, Eli would likely focus his attention on the fact that Anna hit him first, rather than understanding his punishment is for hitting Anna (Crosser, 2005). Because of their unidimensional thinking, children in the preschool years may have difficulty recognizing and understanding transitions (Trawick-Smith, 2003). Preschool age children typically recognize and remember the first and last events in a series. They often find it difficult to remember events that occurred between the first and last event (Crosser, 2005). For instance, a child may remember what game he/she played in circle time that morning, and what he/she did when they got home from school, but he/she may have difficulty remembering what he/she ate for lunch that day. Children in the preschool years also begin to identify situations that could possibly lead to happiness, anger, or sadness (First Years, 2011).
**Emotional development.** As a child’s brain matures, so do his or her social and emotional skills. Because the child’s thoughts are more complex than they were in infancy, preschool age children now possess a greater range of emotions and social skills. Like Piaget, Erik Erikson theorized that a child’s social emotional growth occurs through eight stages. In the preschool years, children have a strong desire to assert themselves into new experiences, take risks, and take action. These feelings are what Erikson referred to as *initiative*. When a preschool child is coerced into thinking that his efforts are wrong and not appropriate, the child feels the competing behavior: guilt (Trawick-Smith, 2003). The concept of initiative manifests itself in a multitude of ways, one of which is with peers. According to Erikson, a typically developing preschooler is eager to engage and play with other children. A child who lacks initiative, and instead feels more guilt, is hesitant to join peers in playing, and thus is more likely to be rejected by his peers (Trawick-Smith, 2003).

During the preschool years, children begin to experience and overtly display a wide range of emotions. Jealousy, excitement, fear, happiness, and anger are emotions a child may begin to display at this age. During this time, children are increasingly even-tempered and cooperative and compliant with their parents (CTFRC, 2015). A child’s morality also begins to form during this time. Known as the “good boy” or “good girl” stage, preschoolers desire to please their parents and those they perceive as being important (Kaneshiro, 2014). Thus, following an action, a preschool child may ask for validation, wondering if he or she has been a “good” or “bad” girl/boy.

Not only are preschool students beginning to identify their emotions, they are also beginning to identify the emotions of another person. In a study conducted by Visser,
Alant, and Harty (2008), 26 four-year-old preschool students were shown a display of graphic representations of four basic emotions (happy, sad, afraid, and angry) and asked to identify the most relevant response to the questions asked of them. For example, students were asked to identify which emotion they believed was being depicted by the character in the picture. Participants in this study recognized the emotions depicted in the pictures. However, a limitation to this study was that it was established that the students understood the concepts happy, sad, afraid, and angry before they were asked to identify the pictures. Thus, the students may have been exposed to the pictures before being asked the questions.

Downs and Strand (2008) also investigated preschool students’ ability to recognize emotions after receiving an intervention focused on emotion recognition. In the study, 16 preschool children with development delays were pulled out of the classroom each day for 15 minutes for 27 weeks. The children received direct instruction using a discrete trial training methodology. Results showed that children in the intervention program, in comparison to those who did not receive the intervention, demonstrated significant growth in their ability to recognize emotion over the course of the academic school year.

**Social development.** The preschool years are critical for social development. This is a period in which many children are away from home for a portion of the day for the first time, either in a preschool or daycare setting (Gagnon et al., 2013). During this time preschool age children are expected to adjust to new physical and social environments, as well as develop new social relationships. The preschool years are marked socially by the development of positive peer relationships. Most preschool children have at least one
reciprocal friendship, and it is not uncommon for a child to have one friend to whom they cling (CTFRC, 2015; Trawick-Smith, 2003). In a small group of preschool students it is not uncommon for one child to emerge from the group as more dominant than the others. Typically this child will face little resistance from the other children (Kaneshiro, 2014). Friendships, whether on an individual or group level, allow preschool students to practice important social skills. Friendships provide many unique opportunities for social growth for children, including conflict resolution and compromise (Trawick-Smith, 2003).

**Communication and speech skills.** Social communication skills are important for recognizing the emotions in others and maintaining positive peer relationships, particularly in the preschool years. However, when speech and language skills are not properly developed, negative behaviors--such as biting--may manifest, directly impacting a child’s capability to make friends and identify the emotions in another individual.

**Vocabulary.** “Vocabulary” is the set of words that an individual knows (Merriam-Webster, 2003). There are two types of vocabulary: receptive vocabulary and expressive vocabulary. Receptive vocabulary refers to the words an individual understands when he/she reads or hears them. By contrast, expressive vocabulary refers to the words an individual uses when he/she speaks (Loraine, 2008). Children often have a larger receptive vocabulary than expressive vocabulary. Thus, children often understand more words than they actually use when speaking. Because of this, preschool age children often have an easier time understanding verbal directions but struggle when verbalizing personal emotions and feelings (Owens, 1996).

**Speech.** Speech is a critical element of communication. It is important to distinguish speech from language. Speech is the “ability to express thoughts and feelings
by articulating sounds” (ASHA, 2015). By contrast, language is “a method of human communication, either spoken or written, consisting of the use of words in a structured and conventional way” (ASHA, 2015). Simply put, speech is the ability to speak the letter sounds and words whereas language is the grammatical patterns by which humans speak. At the age of three, a child’s rate of speech begins to increase and their speech is 75-80% intelligible (First Years, 2011). By the age of four, children begin to simplify words with blend sounds. At this age, the consonant sounds of /r/, /l/, /s/, /t/, /ch/, /sh/, and /z/ emerge. Ninety percent of four year olds will have also mastered the /b/, /k/, /d/, /y/, /f/, and /g/ sounds in conversation. Typically at this age people from outside the family can understand the child’s speech; however, this may not always be the case (ASHA, 2015). While many preschool children seamlessly attain these developmental milestones of speech, others have a difficult time in producing speech, sometimes leading to the development of aggressive behaviors (First Years, 2011). Research has shown that children have a much easier time engaging in conversation about emotions and learning to talk about emotions if they have well-developed language (Marion, 2011).

Problem Behaviors

Problem behaviors, also known as externalizing or “acting out” behaviors, include any physical or verbal disruptive behavior (Gardner & Shaw, 2008). Problem behaviors include, but are not limited to: taking toys from other children, temper tantrums, pushing, kicking, physically attacking, biting and hitting (Tremblay, 1998). These behaviors are frequent in preschool because it is typically a child’s first exposure to formal education and a structured environment that includes rules and close adult supervision. Today, the most prevalent problem behaviors that preschool age children engage in are hitting and
biting; 21-27% of children engaging in at least one of these behaviors (Gardner & Shaw, 2008).

**Biting.** The National Association for the Education of Young Children (NAEYC, 1996) estimates that one in ten toddlers engages in biting behaviors. Research suggests that biting behaviors are a typical developmental occurrence for infants and toddlers, and as such, has no relative long-lasting developmental impact. However, once the biting behavior continues past the age of three, it may indicate other behavioral problems. Identifying the function of the biting behavior is important (Banks & Yi, 2002). A preschool age child may bite for many reasons, including over-stimulation from the lights and sounds in a room, feeling over-tired, needing oral stimulation, experimenting to see what will happen, attempting to obtain a tangible item, or seeking attention (National Center for Infants, Toddlers, and Families, 2014). The most frequent reason a preschool child bites is that he or she simply lacks the language skills necessary to express their needs and emotions. By this age, many children have the communication skills needed to express their needs; however, for those students who do not, biting becomes a mode of communicating these desires (Banks & Yi, 2002).

When biting occurs in the classroom, it is important to respond immediately. However, equally important to a swift response is the prevention of the behavior in the future. Banks and Yi (2002) suggest that social communication skills are directly taught by teachers and parents. It is important to teach preschool age children, particularly those who bite, to develop and utilize expressive communication skills to express their emotions instead of biting. Banks and Yi (2002) suggest that educators and parents help the child express feelings by reflecting the child’s current emotions and actions. For
example, if Becca lacks speech skills allowing her to express frustration with a task, her teacher may say, “You look frustrated, Becca. Are you frustrated?” By prompting the child, the educator is validating Becca’s feelings and teaching her an appropriate way to convey needs and emotions instead of biting.

**Hitting.** Much like biting, hitting is a common behavior that many preschool age children display from time to time. According to Dr. Miriam Schechter, a pediatrician at The Children’s Hospital at Montefiore (2010), hitting behaviors in preschool age children tend to stem from three primary needs. First, children often hit because they are trying to defend their space. A child is often more inclined to hit another child on the playground, at a play date, or while at preschool than any other time simply because he/she is surrounded by many children who are invading his/her personal space. The children are often taking one another’s toys, and frequently do not listen to verbal cues (“Stop!” “Mine!” etc.) that another child provides. Because children may not heed such verbal warnings, a child may act out in anger. It is important to remember that not acting out in anger requires impulse control, a skill that children do not master until they are older (ages five to six; Schechter, 2010).

Second, children often engage in hitting behaviors because they cannot verbalize their needs and emotions due to a limited vocabulary. Much like adults, typical three and four year old children are often overwhelmed and experience feelings of boredom, hunger, and tiredness. However, preschool age children lack the verbal skills to convey these emotions, often making them more upset (Mattes, 2010). Schechter (2010) notes that a “toddler’s vocabulary isn’t fully developed yet, he/she is more likely to use her body to show her feelings or to strike back in disagreement”. Finally, children often
engage in hitting behaviors because they do not feel like themselves. When preschool children are having an “off” day--particularly if they are tired or hungry--they are more inclined to hit because they have not yet mastered the appropriate coping skills that may be needed in a situation. Preschool children often engage in hitting behaviors to cope and convey their current emotions (Mattes, 2010).

**Expulsion in Preschool Settings**

According to the Yale Child Study Center, six out of every 1,000 children are expelled annually from preschool (both public and private; Paccione-Dyszlewski & Boekamp, 2005). Preschool age children are expelled at three times the rate of their K-12 peers (Morgan, 2012). Expulsions have increased significantly in the past five years for preschool students. Paccione-Dyszlewski and Boekamp (2005) attribute this trend to three main causes, including: 1) new expulsion policies in districts, 2) lack of social-skill development in school, and 3) increased student to teacher ratios within the classroom. First, public and private preschool providers have established expulsion policies that encompass preschool children as well as their K-12 older peers. Previously, expulsion was typically reserved for older students; however, districts have created comprehensive expulsion plans that include preschool students and families. A national survey of public preschool providers revealed that two-thirds of state preschool systems either explicitly allowed preschool expulsion or left the decision to a local provider (Family Child Development Center, 2008). Second, because the academic expectations of children have increased in preschool, districts are increasingly sacrificing social-emotional lessons for academic lessons. In general, schools place more focus on academics than social skills. Thus, many schools have decreased, and even removed, social skills and problem solving
instruction (Morgan, 2012). Finally, expulsion rates have increased due to an increase in student to teacher ratio in preschool settings. The Family Child Development Center (2008) reported a higher number of children per teacher yielded an increased likelihood of expulsion in state-funded preschools. Seven and a half percent of preschool teachers reported an expulsion in the past year when fewer than eight children were present in the room. By comparison, when twelve or more students were in a classroom, the incident reports increased to 12.7 percent (FCDC, 2008).

In order to ensure that children are taught appropriate social skills and emotional recognition in another individual, instruction must occur in a manner that addresses their unique physical, cognitive, and social-emotional development.

**Social Skills Curricula for Preschoolers**

It is often debated who is responsible for teaching preschool age children social skills. While many of these skills are acquired naturally as children age and mature, no clear answer exists as to who should teach a child social skills. Some contend that it is the parent's responsibility; however, on average, a child spends 943 hours in (elementary) school per year (Chalabi, 2014). Thus, it can be the school’s responsibility to teach children the vital social skills needed within the school environment, particularly if schools wish to prevent problem behaviors in the classroom. The National Association for the Education of Young Children (NAEYC) and the Division for Early Childhood, Council for Exceptional Children (DEC/CEC) have published many position and policy statements outlining the importance of developmentally appropriate early childhood environments, which includes recommendations to help educators in reducing challenging behaviors in students (Garrity, Longstreth, Salcedo-Potter & Staub, 2016).
The most significant recommendation offered is the importance of teaching young children prosocial behaviors. Garrity, et al. (2016) report that many early childhood education programs disregard these recommendations and instead, take a reactionary approach to challenging behavior. Instead of implementing a social emotional curriculum and teaching students prosocial skills, early childhood centers rely upon “poorly written, age-inappropriate behavioral expectations” (Garrity et al., 2016, p. 210). Instead of taking a reactionary approach, early childhood centers should consider taking a proactive approach to behavior, outlining and teaching prosocial behaviors utilizing a published social-emotional curriculum.

**Published Social-Emotional Curricula**

Many schools choose to purchase and utilize commercially available social-emotional curricula specifically created to teach preschool age children vital social and emotional skills in a manner appropriate for their physical, mental, and social-emotional growth. Social and emotional learning (SEL) has a main focus on helping children attain knowledge about feelings and getting along with others (Marion, 2011). Teaching students developmentally appropriate social skills creates a healthy environment for students to thrive academically, socially, and emotionally. Bassett, Denham, and Zinsser (2012) report that an early childhood environment where children can express healthy emotions, regulate them, and understand the emotions in themselves and others, creates a successful school experience for students.

Dowswell and Chessor (2014) investigated the effects of a social education program on the development of children’s social competence. In this study, 31 preschool children were taught social skills in an eight-week intervention designed and created by
the researchers. Dowswell and Chessor used an experimental group and a “wait” (control) group to compare the effectiveness of the intervention. Students were assigned to a group based upon which days they attended preschool. This was one of the limitations of the study, as the students’ group membership could be considered an uncontrolled confounding variable. Another limitation of the study was the small sample size of the participants, which limited generalizability.

The curricula in the above study was made using books, activities, and lesson plans from a variety of endorsed social skills curricula, and outcomes were measured via pre/post administration of the Behavior Assessment System for Children Preschool Parent Report Scale, 2nd edition (BASC-2 PRS-P; Reynolds & Kamphaus, 2008). Using a mixed factorial design, Dowswell and Chessor found that at the conclusion of the eight-week intervention, parents reported a higher social intelligence, as reported on the BASC-2 Parent report, than at the beginning of the study. However, due to the use of a control group, Dowswell and Chessor stated that they were unsure if the increase in social intelligence could be attributed solely to the curricula. The control group also showed similar improvements as well, which the authors attributed to development (Dowswell & Chessor, 2014).

Al’s Pals. Al’s Pals is a packaged curriculum for students ages three to eight who are considered “at risk” to display problem behaviors due to factors such as poverty and violence. According to the Al’s Pals curriculum (Wingspan, 2013), the purpose is to promote emotional and social competence and reduce the risk of antisocial behavior in young children. The intervention is typically delivered during whole class instruction by a trained facilitator (i.e., teacher, counselor, etc.). The curriculum is 23 weeks, and two
15-20 minute lessons are delivered each week. Using puppets, brainstorming, role-play, books, music, and guided creative play, facilitators expand students’ understanding and expression of emotions, positive coping, and positive social interactions (Powell & Dunlap, 2009). Al’s Pals (Wingspan, 2013) requires that those who will be implementing the curriculum attend a two day training to learn how to correctly use the curriculum within the classroom. Once the training is completed, the curriculum may be purchased. The cost for both the curriculum and the two day training is $1,450.

Lynch, Geller, and Schmidt (2004) examined the effect of Al’s Pals curricula on resilience in young children. In the study, seventeen intervention classrooms (n = 218 children) in a Head Start program received the Al’s Pals curriculum instruction while 16 control classrooms (n = 181 children) did not. After examining pre-and post-test data, collected through behavior rating forms filled out by the teacher, researchers found the preschool students in the intervention group made considerable gains after participating in the program. Preschool children who participated in the Al’s Pals curriculum were 7 times more likely to show an increase in prosocial behaviors on teacher ratings scales of positive behavior than children who did not participate in the program. Students who participated in the program also demonstrated higher social-emotional competence and better coping skills than those who did not receive the intervention (Lynch, Geller, & Schmidt, 2004). Not only has Al’s Pals demonstrated positive research outcomes, the program has also received recognition from leading federal agencies and national organizations, including The U.S. Department of Health and Human Services, the U.S. Department of Justice, the Collaborative for Academic, Social and Emotional Learning
(CASEL), and Communities that Care Prevention Strategies Guide (Wingspan, LLC, 2013).

**Incredible Years: Dina Dinosaur.** The Incredible Years (Webster-Stratton, 1992) is a packaged curriculum for children in preschool and kindergarten from high risk populations. Through whole class instructional delivery, The Incredible Years promotes children’s social competence, emotional self-regulation, and positive school behavior. The curriculum is 30 weeks and two to three sessions are conducted per week, each lasting 40 minutes (20 minutes of whole class instruction and 20 minutes of small group discussion). The sessions focus on learning school rules, emotional literacy, social skills, communication skills, and personal problem solving (Powell & Dunlap, 2009). Training is not required for those who wish to implement the curriculum. Thus, the curriculum is available for anyone to purchase. The curriculum materials cost around $1,425 and supplemental materials are also available for purchase (stickers, puppets, etc.; Webster-Stratton, 1992).

In 2003, Webster-Stratton and Reid investigated the effect of the Dina Dinosaur Treatment program on treating conduct problems of preschool children. Dina Dinosaur is a classroom based social-emotional curriculum in the Incredible Years program. In this study, conduct problems were characterized as noncompliance, aggression, and oppositional behaviors lasting for at least six months. In the study, children and parents were assigned to one of four groups: (1) child training only, (2) parent training only, (3) child and parent training, and (4) waitlist control. In the child training, students received the curriculum intervention and in the parent training, parents were given training on addressing conduct problems in the home setting. Students received two hours of
instruction each week for 18 weeks. At the conclusion of the study, researchers found that preschoolers who received the Dina Dinosaur curriculum had significantly more positive social interactions with peers than other groups, when observed by the researchers. Positive outcomes were maintained one year after the intervention (Webster-Stratton & Reid, 2003).

**Pirates!** The Pirates! Curriculum, developed by Carter and Santomauro (2007), is designed to develop social understanding and social competence in children, ages preschool through third grade. This curriculum was created for children with Autism Spectrum Disorder (ASD) and related challenges; however, the program can be used to teach social skills to typical peers as well. Using a pirate theme, children are invited to engage in fun activities that develop skills related to friendship making, social problem solving and emotional expression. The program involves eight weekly “voyages” led by the “captain” (teacher, counselor, etc.). Training is not required to implement this program; however, there is significant preparation needed before each lesson. The curriculum consists of one book which outlines lessons and offers suggestions for supplemental materials; however, these are not included. The cost for the Pirates! curriculum book is $35.95 and can be purchased online.

There is no research currently to support this curriculum; however, Koenig (2009) conducted a review of the program to evaluate its effectiveness in teaching social skills to children with Autism. In the review, Koenig noted that while this curriculum was initially designed for students with Autism Spectrum Disorder, the curriculum was deemed most appropriate for students with ASD who have above average expressive/receptive language skills, as well as the ability to understand symbolism, and who possess a
capacity for rich imaginative thinking and play. This curriculum was chosen for the present study due to the straightforward lesson plans and themes presented throughout the curriculum.

**Preschool PATHS.** The Promoting Alternative Thinking Strategies (PATHS; Channing Bete, 2016) curriculum is designed for preschool children ages three to five. The purpose of the curriculum is to prevent and reduce behavioral and emotional problems in young children and to enhance children’s social emotional knowledge and competence. The curriculum is delivered in a whole class setting by the teacher. It should be noted that training is not required for this curriculum; however, it is available. The curriculum consists of 33 lessons delivered weekly on a flexible timeline. Through modeling, stories, puppets, songs, and role-play, children learn friendship skills, emotional understanding and expression skills, self-control strategies, and problem solving (Powell & Dunlap, 2009). Like The Incredible Years program, PATHS is available to be purchased by anyone who wants to utilize the curriculum. The curriculum costs $839.00 and includes a variety of supplemental materials including puppets and stickers (Channing Bete, 2016).

Domitrovich, Cortes, and Greenberg (2007) examined the effect of PATHS’ on young children’s social and emotional competence. Two hundred forty six preschool children from two regional Head Start programs participated in the study. Students received the PATHS curriculum intervention weekly for 30 weeks during circle time. The primary objectives of the curriculum were to: (1) develop children’s awareness and communication regarding their emotions and the emotions of others, (2) teach self-control, (3) promote positive self-concept and peer relations, (4) develop problem solving
skills, and (5) create a positive classroom environment that fosters social-emotional learning.

Results of the study indicated that children who were exposed to the PATHS curriculum intervention had a larger receptive emotion vocabulary than children in the control group. These children were also more accurate in identifying feelings and exposure to the intervention also significantly reduced children’s attribution bias (systematic errors made by a researcher while evaluating their own work). However, the PATHS curriculum did not have an impact on the children’s social problem solving skills (Domitrovich, Cortes, & Greenberg, 2007).

Hughes and Cline (2015) also examined the effect of the PATHS curriculum on preschool social and emotional intelligence. In this study, 57 preschool children (ages three and four) were randomly placed into three groups. Group 1 was the control group (did not receive PATHS curriculum), Group 2 received an abbreviated version of the curriculum, and Group 3 received the curriculum in its entirety. Students’ growth was measured using direct student measures, semi-structured teacher interviews, and parent measures. Direct student measures included responding to social stories and answering questions directly related to the emotions and feelings of the characters depicted in the stories. At the conclusion of the study, Hughes and Cline found that students who had received the full PATHS curriculum intervention showed a significant increase in their social behavior, emotional knowledge, and self-regulation skills. Students also showed a decrease in problem behaviors. Students in Group 2 (using the adapted PATHS curriculum) showed an increase in their affective perspective skills, however, the results were not significant. Hughes and Cline noted that the curriculum could have had a greater
impact on their social-emotional development if other adaptations to the curriculum had been utilized.

Hughes and Cline highlighted many positive aspects to the PATHS curriculum, which included its ability to help change children’s behavior by developing their thinking/reasoning skills and the level of engagement it rendered from students. However, Hughes and Cline outlined many negative aspects to the curriculum. In their discussion of the study, Hughes and Cline stated that the PATHS curriculum was not good for students with special education needs, specifically students with language difficulties, behavior problems, and concentration issues. However, Domitrovich et al. (2004) reported that when they piloted the materials of their study in a therapeutic nursery, students with learning disabilities and cognitive delays did benefit. Therefore, Domitrovich et al. stated that they found it to be beneficial to students to slow down the rate by which the material was presented, as well as spend time reviewing concepts before moving on in the curriculum (2004).

In 2015, Gibson, Werner, and Sweeney examined the benefits of an abbreviated version of the PATHS curriculum on preschool and kindergarten students’ emotional understanding and prosocial behavior. In the study, a clinician implemented the curriculum rather than a classroom teacher. Results indicated that students who participated in the study had an increase in their emotional understanding and prosocial behaviors. Gibson, Werner, and Sweeney recommend that future research utilize a control group to help eliminate extraneous variables such as maturation, thus, results could be more generalized to the preschool/kindergarten population.
The Present Study

There is substantial evidence to support the development of appropriate social skills in the preschool years and its critical impact on academic, emotional, and social success and the prevention of problem behaviors (Banks & Yi, 2002; Gardner & Shaw, 2008; Mattes, 2010; NAEYC, 1996; Tremblay, 1998). Using a manufactured social emotional curriculum, school professionals, including teachers, can teach preschool age children important social and emotional behaviors needed to be successful in an academic setting.

Problem statement and significance of study. While research supports the use of social emotional curricula in a kindergarten and elementary setting, few studies have explored the implementation of social emotional curricula in the preschool environment to increase preschool prosocial behavior and emotion recognition. The present study examined the effectiveness of a commercially available social emotional curriculum on preschool students’ emotional recognition and prosocial behaviors. The purpose of the present study is to contribute to the scant body of knowledge by providing an account of the effectiveness of the PATHS social skills curricula on preschoolers’ emotion recognition and prosocial behaviors. The study draws upon research by Dowswell and Chessor (2014) with regard to design and measurement (utilizing the BASC and an emotion recognition chart). However, the present study proposed an alternative to the methods used by Dowswell and Chessor (2014) by giving the intervention to the entire class while examining data on select students. This study draws upon research by Hughes and Cline with regard to population (preschool children),
however, typical students and students receiving special education were included in this study.
CHAPTER III

METHOD

Research Questions and Predictions

The following research questions were examined in the present study:

Research question 1. What is the impact of the PATHS social-emotional curriculum on preschoolers’ recognition of emotions in others?

Prediction 1. It was hypothesized that participants would correctly identify more expressed emotions of another person following completion of the program’s lessons. Preschool students need to be directly taught the appropriate skills needed to identify emotions in another, as demonstrated in the research conducted by Dowswell and Chessor (2014).

Research question 2. What is the impact of the PATHS social emotional curriculum on preschool students’ development of prosocial behaviors?

Prediction 2. It was hypothesized that participants would demonstrate increased prosocial behaviors following the intervention. This hypothesis was based upon research conducted by Dowswell & Chessor (2014), which suggests that once children are taught a skill, their ability and awareness to utilize the skill increases, leading to a change in behavior.
Research Design

The present study utilized a single-group pre-test/post-test quasi-experimental design producing quantitative data. A pre/post quasi-experimental design was utilized to obtain the most reliable data possible on the efficacy of the intervention, given the realistic constraints of conducting research in a school setting.

The dependent variables examined in the present study included: (1) prosocial behaviors (adaptability, functional communication, social skills, and adaptive skills), which were measured using the Behavior Assessment System for Children Teacher Report-Preschool (BASC-3-TRS-PR; Reynolds & Kamphaus, 2015), and (2) emotion recognition (a child’s ability to recognize emotions based upon facial expressions), which was measured using an emotion recognition picture survey, using pictures from Marshall’s (2013) book, *Faces*. The independent variable in this study was the PATHS curriculum.

Participants and Setting

In this study, two preschool classes (Teacher A’s morning class and Teacher B’s afternoon class) received the PATHS intervention. Teacher A’s afternoon class and Teacher B’s morning class served as control groups for the study to more accurately evaluate the effectiveness of the intervention. From each class (both experimental and control group) four students were identified by the teacher as having social-emotional deficits. Thus, sixteen preschool students were chosen to actively participate in the current study. However, during the course of the study, two students moved; thus, only the data from the fourteen students who actively participated in the entirety of the study was reported. The average age of the participants was four years of age. Participants, as
well as their classmates, received the intervention; however, data was only analyzed from students who were referred by either Teacher A or Teacher B. Thirty-six percent of participating students had an Individualized Education Plan (IEP), and 64% did not receive any special education services through the school.

Two preschool teachers (Teacher A and Teacher B) from a mid-sized suburban school district in southwestern Ohio participated in the study. Teacher A and Teacher B taught both morning and afternoon sessions of preschool, both of which were utilized in this study. While the teachers were not considered to be active participants in the social skills group, the teachers were responsible for filling out a behavior rating scale on each of their students pre- and post-intervention.

Materials

Measures. Two primary dependent measures used in the present study included: 1) the Behavior Assessment System for Children-Teacher Report for Preschool Students-Third Edition (BASC-3-TMS-PR; Reynolds & Kamphaus, 2015) and 2) an emotion picture survey compiled by the researcher.

BASC-3. The BASC-3 is a comprehensive set of rating scales and forms that together, help an individual understand the behaviors and emotions of children and adolescents. The BASC-3 is deemed highly reliable and valid in the psycho-educational professional field (Reynolds & Kamphaus, 2015). The internal consistency of the BASC-3 is .81-.96, which is considered highly reliable (Reynolds & Kamphaus, 2015). The BASC-3-TMS-PR was completed by the preschool teacher for each student in the class before intervention began and was completed again at the conclusion of the intervention.
by the same teacher. To measure prosocial behavior, the adaptive scales of Adaptability, Social Skills, Functional Communication and Adaptive Skills Profile were examined.

**Emotion recognition measure.** To answer the second research question, the researcher used a series of pictures depicting preschool children conveying specific emotions to gauge weekly emotion recognition in the participating preschool children. Pictures were used from Dr. Dalit H. Marshall’s book, *Faces: A Resource for Helping Children Understand Emotions* (2013). The book is designed to help teach students basic and complex emotions through scripted dialogue, explaining the characteristics of the emotion and common reasons a peer may display the emotion. Each emotion is accompanied by pictures of a child conveying the emotion through facial expressions. At the conclusion of the book, there is an optional quiz to test students’ knowledge. In the present study, only the pictures were used in the weekly measure. The measure included six basic emotions (anger, happiness, sadness, fear, surprise, and disgust) depicted by children’s faces. Students were asked to identify the emotion depicted in the picture. This measure was administered weekly before the intervention.

**Intervention materials.** The Promoting Alternative Thinking Strategies (PATHS; Channing Bete, 2016) curriculum is designed for preschool children ages three to five. The curriculum is delivered in a whole class setting by the teacher. Through modeling, stories, puppets, songs, and role-play, children learn friendship skills, emotional understanding and expression skills, self-control strategies, and problem solving (Powell & Dunlap, 2009). The curriculum consists of 33 lessons delivered weekly on a flexible timeline. Lessons take, on average, 10 minutes to deliver. However, due to the level of participation from students, the lessons took, on average, 20 minutes to complete. In this
present study, eight lessons were delivered to both participating preschool classrooms by the researcher weekly for 20 minutes. The lessons that were chosen for this study focused on the themes of self-regulation, emotion recognition, and social strategies used to make, and maintain, positive peer relationships.

**Procedures**

Institutional Review Board (IRB) approval was obtained through the University of Dayton prior to the beginning of the study. Following IRB approval, written informed consent (see Appendix A) was obtained from the parents/guardians of the participating children as well as the participating preschool teachers (Appendix A).

**Data collection.** Data collection occurred through two methods: (1) pre/post completion of the BASC-3 and (2) Preschool emotion recognition measure administered weekly before the intervention. Before the curriculum was implemented, the preschool teachers were asked to complete the BASC-3 behavior rating scale for identified students (students who do not display appropriate prosocial behaviors in class) as a baseline for students’ pro-social behaviors. Students were identified based upon teacher input/referral. The completed protocols were scored electronically by the researcher. Each week, the targeted preschool students met individually with the researcher to complete the emotion recognition assessment. Six pictures depicting basic emotions (anger, happiness, sadness, fear, surprise, and disgust) were presented to the students. Students were asked to name the emotions depicted in the presented pictures. Students were evaluated using a “1” or “0” system. Students received a “1” if they correctly identified the emotion depicted in the picture. The child received a “0” if he/she incorrectly identified the emotion.
Students’ correct repossess were totaled and recorded each week following the assessment.

**Intervention.** The researcher implemented one lesson from the PATHS social skills curriculum weekly during circle time for approximately 20 minutes, teaching the curriculum as it was written, using supplemental materials as well. It was determined that the researcher would conduct the lessons due to her familiarity with the curriculum. The participating teachers were not familiar with the curriculum, and thus, did not feel comfortable implementing the curriculum independently. The intervention lasted eight weeks. Students participated in circle time on Thursday when the new concept(s) were introduced. Students engaged in imaginative play, songs, and discussion about the pro-social behavior that was depicted in the lessons. Each week, prior to the PATHS circle time (Wednesday), students met individually with the researcher and were asked to identify the emotions on a picture survey. Following the conclusion of the eight week intervention, the preschool teachers were asked to complete a BASC-3 rating form for each student again to measure pro-social behavior growth, and students identified emotions on the survey one final time.
CHAPTER IV
RESULTS

To answer the research question: What is the effect of a packaged social emotional curriculum on preschool emotion recognition in another person, the following data analyses were conducted by the researcher: Descriptive statistics (mean, standard deviation, and standard error of measure) were used to evaluate student emotion recognition ability post intervention. Rate of improvement (Hunley & McNamara, 2010) was also calculated to evaluate average weekly improvement throughout the intervention.

To answer the research question: What effect does a social emotional curriculum have on preschool students’ prosocial behavior, an independent samples t-test was utilized to examine the effectiveness of the intervention at increasing prosocial behaviors as measured by the BASC-3 (adaptability, social skills, functional communication, and adaptive skills). Descriptive statistics (mean, standard deviation, and standard error of measure) were used to evaluate the curriculum’s impact on students’ prosocial behavior growth. The Reliability Change Index (Nunnally & Kotsche, 1983) was also calculated to evaluate the reliability of the observed changes in participants’ pre and post intervention BASC-3 assessments.
**Emotion recognition picture survey.** The emotion picture survey was used to measure the outcomes for the first research question presented above. Each week, students in both the control and intervention group were asked to look at six pictures of children’s faces and label each face with an emotion. This practice occurred every week during the duration of the eight week study. Students’ scores were recorded and placed in a document to be coded by the researcher. Students’ responses were assigned a score of “1” or “0” depending upon the quality of the response. Synonyms for the word were accepted; however, the child must verbally label the picture to receive a score of “1”. For example, for anger, many children labeled the face as “mad”, thus, rendering a score of “1”. However, one child, when shown the face depicting anger, growled to depict the presented emotion. This response rendered a score of “0” because it was unclear to the researcher whether the child understood the concept of “anger”.

Once coded, descriptive statistics were used to measure growth in student responses from pre to post intervention for both the control and intervention group. Pre-test data for students in the control group yielded an average of 62.5% of correctly identified emotions, with two students correctly identifying 86% of presented emotions. At the conclusion of the study, the control group’s average correctly identified emotions score was 87.5%. Rate of improvement (ROI) was calculated to demonstrate weekly growth. Rate of improvement is calculated by dividing the difference between pre and post test data by the total number of intervention weeks ($n=8$; Hunley & McNamara, 2010). The rate of improvement for students in the control group was 3.12, indicating that, collectively, the control group identified three more emotions each week.
Students in the intervention group correctly identified 61% of presented emotions in the pre-intervention phase. At the conclusion of the intervention, students, on average, correctly identified 100% of presented emotions. The rate of improvement for students in the intervention group was 4.87, indicating that each week, collectively, students in the intervention group correctly identified four more emotions than the previous week.

Tables 1 and 2 describe individual participants’ pre and post percent of correct responses on the emotion recognition picture survey.

Table 1.

*Control Group % of Correct Responses on Pre/Post Test of Emotion Recognition*

<table>
<thead>
<tr>
<th>Student</th>
<th>Pre-Test Correctly Identified Emotions</th>
<th>Post-Test Total Correctly Identified Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>57%</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>57%</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>57%</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>57%</td>
<td>57%</td>
</tr>
<tr>
<td>5</td>
<td>43%</td>
<td>57%</td>
</tr>
<tr>
<td>6</td>
<td>86%</td>
<td>100%</td>
</tr>
<tr>
<td>7</td>
<td>86%</td>
<td>100%</td>
</tr>
<tr>
<td>8</td>
<td>57%</td>
<td>86%</td>
</tr>
</tbody>
</table>
Table 2.

*Intervention Group % of Correct Responses on Pre/Post Test of Emotion Recognition*

<table>
<thead>
<tr>
<th>Student</th>
<th>Pre-Test Total Correctly Identified Emotions</th>
<th>Post-Test Total Correctly Identified Emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>57%</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>57%</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>71%</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>71%</td>
<td>100%</td>
</tr>
<tr>
<td>5</td>
<td>71%</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>43%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**BASC-3.** To measure the impact of the PATHS curriculum on participants’ prosocial behavior, total T-score gains for the selected scales were calculated for both the control and intervention group. Table 3 provides a comparison of total T-score gains for both the control and intervention group. Upon visual analysis of the total T-score gains made across the four BASC-3 scales, the intervention group made more total T-score gains than the control group in the Adaptability, Social Skills, and Adaptive Skills Composite scales. The control group made more total T-score gains than the intervention group in the Functional Communication scale.

An Independent samples t-test was conducted to evaluate the impact of the intervention on participating students’ Adaptability, Social Skills, Functional Communication, and overall Adaptive Skills scores. At the p < .05, the difference in Adaptive Skills, Social Skills, Functional Communication, and overall Adaptive Skills scores were not significant when examining the effectiveness of the curriculum on prosocial behaviors (see Table 3).
Table 3.

*Independent Samples T-Test for Intervention Students’ BASC-3 Scales Overall T-Score Gains*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>t</th>
<th>p-value (2-tailed)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>-0.547</td>
<td>0.595</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Social Skills</td>
<td>-0.780</td>
<td>0.451</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Functional Communication</td>
<td>-0.260</td>
<td>0.799</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Adaptive Skills Composite</td>
<td>0.098</td>
<td>0.924</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

A reliability change index (RCI) was utilized to further determine whether the impact of the intervention was statistically significant. This statistical measure, originally proposed by Nunally and Kotsche (1983) was deemed to be an appropriate measure due to the small number of active study participants. The RCI is calculated by dividing the difference between the pre-intervention and post-intervention scores by the standard error of measurement (SEM). The RCI can be interpreted based on a z-score distribution. Scores that are greater than +1.96, the difference is considered reliable, and thus statistically significant. By contrast, RCI scores that are less than +1.96 are deemed not statistically significant and the change is considered to not be reliable. The RCI was calculated for the intervention groups’ BASC-3 scores on the Adaptability, Social Skills, Functional Communication, and Adaptive Skills composite scores.

On the BASC-3 (see Table 4), computed RCI scores on the Adaptability, Social Skills, Functional Communication, and Adaptive Skills were not statistically significant.
While there was an increase in students’ prosocial behaviors, as measured by the BASC-3, scores were not statistically significant, thus, the change in their BASC-3 scores post intervention are not considered to be reliable.

Table 4.

*Reliability Change Index for BASC-3 Scales*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>RCI</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>1.44</td>
<td>No</td>
</tr>
<tr>
<td>Social Skills</td>
<td>0.97</td>
<td>No</td>
</tr>
<tr>
<td>Functional Communication</td>
<td>0.83</td>
<td>No</td>
</tr>
<tr>
<td>Adaptive Skills Composite</td>
<td>1.78</td>
<td>No</td>
</tr>
</tbody>
</table>
CHAPTER V
DISCUSSION

Review of Purpose

Six out of every 1,000 preschool children are expelled annually from both public and private settings (Paccione-Dyszlewski & Boekamp, 2005). Compared to their K-12 peers, preschool age students are expelled at three times the rate of their school-age peers (Morgan, 2012). Across the United States, kindergarten has become the new first grade. Due to the ever-changing public education policies and academic standards, preschool teachers find themselves placing more direct focus and instruction on classroom academics than social-emotional learning. Hall, Jones, and Claxton (2008) report that although social skills play a crucial role in academic success and progress, programs and curricula targeting this area of development are not commonly included in daily formal preschool education.

Much like academics, behavior must be explicitly taught to students. Societal expected behavior and social norms are addressed and explicitly taught within the context of published social-emotional curricula. There are many published curricula available for implementation in the classroom (Powell & Dunlap, 2009); however, little research adequately demonstrates the effectiveness of these programs on improving emotion recognition in preschool students. Studies have examined the effectiveness of social skills
curricula on kindergarten students (Arda & Ocak, 2012); little research exists on preschool children.

The purpose of the present study was to examine the effectiveness of a social-emotional curriculum on preschoolers’ prosocial behavior and emotion recognition. To date, many of the studies in the available literature focus on the school-age and early elementary population, with little focus on preschool social-emotional development, specifically, emotion recognition and prosocial behavior. Results from this study were not statistically significant, though practical meaning can be drawn from the outcomes. Through anecdotal observation by the researcher during circle time and teacher feedback provided throughout the intervention, participating students were observed to show an increased ability to identify emotions depicted in pictures. It was also reported by participating teachers that participating students displayed improved play skills by the end of the study.

**Interpretation of Findings Relative to Predictions**

**Emotion recognition survey.** Students in both conditions demonstrated an increase in their ability to recognize and label emotions depicted in pictures at the conclusion of the intervention; the intervention group’s growth margin was larger. Before intervention, on average, students in the control group identified 62% of presented emotions, whereas students in the intervention group identified, on average, 61% of emotions. At the conclusion of the intervention, students in the control group, on average, correctly identified 87% of emotions, whereas students in the intervention group correctly identified, on average, 100% of presented emotions. Given that both groups improved on
this measure, there is no way to determine if the intervention was the primary reason for the growth in this area.

**BASC-3.** Results from the pre intervention BASC-3 scores indicated that students in the intervention group presented with average scores on the Adaptability (T-score = 56), Social Skills (T-score = 58) and Functional Communication (T-score = 58) sub scales and average scores on the Adaptive Skills composite scale (T-score = 58). After participation in the eight week intervention, students’ post scores on the BASC-3, as reported by their classroom teachers, increased; however, scores still fell in the average classification range. Post intervention data collection resulted in average student scores as follows: in Adaptability (T-score = 61), Social Skills (T-score = 61), Functional Communication (T-score = 60) and Adaptive Skills (T-score = 58); all of which represent very small increases. At the p < .05 level, the findings were not statistically significant.

While the results of the current study were not statistically significant, anecdotal comments from the participating teachers were recorded through casual conversation. Participating teachers reported that students who participated in the intervention demonstrated “increased positive play skills” as well as increased “positive problem solving strategies during free play” within the classroom. Teachers also reported that participating students demonstrated a “noticeable increase in intentional, positive interactions” with their peers.

While there are many possible reasons for the non-significant outcomes of this study, perhaps the most compelling and plausible explanation is the participant demographics. In both the control and intervention group, 36% of students received special education services through an Individualized Education Program (IEP). The
students in both groups received special education services due to speech and language deficiencies. In a review of the participating students’ IEPs, it was determined that the students in the control group received special education services for language (e.g., understanding spoken language, answers questions following directions, etc.). Children who present with language deficits often have average vocabularies for their age and are easily understood by both familiar and unfamiliar listeners (ASHA, 2017). Students in the intervention group received special education services for speech (e.g., articulation, stuttering/stammering, phonology, etc.). These students often are able to understand spoken language; however, have a difficult time producing spoken language and being understood by both familiar and unfamiliar listeners (ASHA, 2017). On the BASC-3, teachers are asked to rate a student’s functional communication skills by endorsing items that focus on expressive communication skills. Thus, it is possible that students in the intervention group did not make as many total T-score gains on the Functional Communication subscale due to expressive communication deficits.

Limitations

Participant sample size should be considered when examining the results of the present study. Based on anecdotal teacher reports and the lack of significant findings, increased statistical power through a larger sample size is needed to show statistical significance and examine the overall effectiveness of the curriculum. Because of the small sample size, the outcomes of this study should be interpreted with caution when generalizing results to the broader preschool population.

Additionally, the curriculum should be used in its entirety rather than selecting specific lessons. The PATHS curriculum includes 24 lessons, designed to be
implemented over the course of one academic school year. The present study involved implementation of eight lessons specifically targeting emotions and emotion recognition. To determine overall effectiveness of the curriculum, the curriculum should be used in its entirety. Finally, the BASC-3’s sensitivity to change should be considered when interpreting the results of the present study. T-scores for the BASC-3 are classified by the student’s whole age instead of month increments (4 years old vs 4.3 years). Because of this, the BASC-3 is not sensitive to changes that may occur in a monthly timeframe. Future studies should consider utilizing a measure that is more sensitive to short term improvement.

**Implications for Practice**

It is the responsibility of each practitioner in the school to not only meet the needs of a child academically, but also behaviorally as well. When students do not know how to read, educators teach them. When students do not know how to count, educators teach them. When students do not know how to behave, educators punish them. Behavior is like any academic content area: expectations and fundamental skills must be taught. In order for students to be successful academically and behaviorally, students must be taught clear expectations and coping strategies to deal with overwhelming feelings of sadness, anger, and disappointment.

The present study examined the effectiveness of teaching preschool students emotion recognition and basic social skills through a commercially available curriculum. Results of the study showed that students who are provided with direct social-emotional instruction make more social-emotional skill gains than their non-participating peers.
School psychologists play an important and prominent role in advocating for explicit instruction in social skills. Because of increased and ever changing academic standards, teachers often replace direct social skills instruction with increased academic instruction. School psychologists should continue to advocate for students’ holistic school success, which includes social-emotional intelligence and prosocial behaviors. Beyond advocating for social skills curricula, school psychologists should also consider becoming a greater presence in the classroom and student body when able. By facilitating social groups or running circle time like the present study, school psychologists can begin to help become a part of the solution to the present problem. Professional organizations such as the NAEYC and DEC/CEC have outlined for practitioners the importance of utilizing a proactive approach to behavior in the early childhood setting (Garriety et al., 2016). Research conducted by Bassett, Denham, and Zinsser (2012) shows that an early childhood environment where children can express healthy emotions, regulate them, and understand the emotions in themselves and others, creates a successful school experience for students. Thus, school psychologists should help to create early childhood environments where students are encouraged to explore their emotions.

Future Research

This study can be expanded upon in many ways in order to further generalize its findings to the broader preschool population. For future studies, it is recommended that a larger sample size is utilized to increase statistical power when evaluating the effectiveness of the social-emotional curriculum. In addition, it is also recommended that the curriculum be used in its entirety rather than utilizing selected lessons from the curriculum. The present study only evaluated the impact the curriculum had on prosocial
behaviors and emotion recognition. Future studies may choose to examine the
effectiveness of the curriculum in decreasing problem behaviors and identifying one’s
own emotions. Finally, future studies should consider using a standardized instrument
that is more sensitive to change in a short period, unlike the BASC-3, to accurately
evaluate the impact the intervention had on prosocial behavior development.

**Conclusion**

The present study examined the effectiveness of a commercially available social-
emotional curriculum (PATHS) on preschool prosocial behavior development and
emotion recognition. Results were not significant; participants in both conditions made
gains on the emotion picture recognition measure, and students in the intervention
condition made only small improvements on the relevant subscales of the BASC-3.
Further research utilizing a larger sample size is encouraged to help support the
generalizability of the findings. More research is needed to add to the lacking existing
literature regarding effective interventions to aid in developing, and promoting, prosocial
behaviors in preschool children.
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APPENDIX A

Consent Letters

Parental Consent to Participate in a Research Study

University of Dayton ● Dayton, OH

**Effectiveness of Social Skills Curricula on**

**Preschool Prosocial Behavior and Emotion**

Title of Study: **Recognition**

Investigators:

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Parent/Guardian Name:

Introduction

Your child is being asked to participate in a research study on the effectiveness of a social-emotional curriculum on preschoolers’ prosocial behaviors and emotion recognition.

We ask that you read this form and ask any questions that you may have before allowing your child to participate in this study.
Purpose of Study

The purpose of the study is to evaluate the impact of direct social skills instruction on preschool students’ social skills and their ability to identify basic human emotions. Ultimately, this research may be presented as a poster presentation at the National Association of School Psychologists (NASP) annual convention.

Description of the Study Procedures

If you decide to allow your child to participate in this eight week study, s/he will meet individually with the primary researcher inside his/her classroom and will be asked each week to look at pictures of children depicting an emotion identify the emotion depicted by the individual in the picture. It is important to note that this task will take no longer than five minutes per week and your child will not miss instructional time.

Risks/Discomforts of Being in this Study

There are no reasonable foreseeable (or expected) risks. There may be unknown risks.

Benefits of Being in the Study

The benefits of participation are that your child may gain an increased awareness of his/her emotions, how his/her emotions affect others, and an increased awareness and ability to gain social skills necessary for academic success within the school setting.
Confidentiality

Student’s identifying information will be used when collecting data, however, identifying information will be removed when analyzing and reporting data.

The records of this study will be kept strictly confidential. Research records will be kept in a locked file. We will not include any information in any report we may publish that would make it possible to identify your child.

Right to Refuse or Withdraw

The decision to participate in this study is entirely up to you and your child. Your child may refuse to take part in the study at any time without affecting your relationship with the investigators of this study or Bellbrook-Sugarcreek School District.

Right to Ask Questions and Report Concerns

You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Laura Kuebel, at kuebell1@udayton.edu. If you have any other concerns about your rights as a research participant that have not been answered by the investigators, you may contact Candise Powell, Chair of the University of Dayton Institutional Review Board at (937) 229-3515. If you have any problems or concerns that occur as a result of your participation, you can report them to the Mary Connolly at the number above.

Consent
Your signature below indicates that you have decided to allow your child participate as a research subject for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep, along with any other printed materials deemed necessary by the study investigators.

Parent/Guardian Name:  

____________________________

Parent/Guardian Signature:  

____________________________

Investigator’s Signature:  

____________________________
Teacher Consent to Participate in a Research Study

University of Dayton ● Dayton, OH

**Effectiveness of Social Skills Curricula on**

**Preschool Prosocial Behavior and Emotion**

Title of Study: **Recognition**

Investigators:

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Teacher Name: ____________________________________________

**Introduction**

You are being asked to participate in a research study on the effectiveness of a social-emotional curriculum on preschoolers’ prosocial behaviors and emotion recognition.

We ask that you read this form and ask any questions that you may have before agreeing to participate in this study.
Purpose of Study

The purpose of the study is to evaluate the impact of direct social skills instruction on preschool students’ social skills and their ability to identify basic human emotions. Ultimately, this research may be presented as a poster presentation at the National Association of School Psychologists (NASP) annual convention.

Description of the Study Procedures

If you decide to participate in this eight week study, you will be asked to do the following things: refer students who would benefit from direct social skills instruction, allow your students to participate in a weekly 20 minute circle time and participate in a weekly activity to measure growth. Your class will participate in a circle time (led by the primary researcher) focused on promoting positive social skills. Four students from both your morning and afternoon class will be used as “active participants”, meaning, data will be collected on just these students. These students will participate in a weekly measure administered individually by the primary researcher to evaluate individual growth. Students will be asked each week to look at pictures of children depicting an emotion and to identify the emotion depicted by the picture. This activity will take no longer than five minutes per student.

If you decide to participate, you will be asked to complete the Behavior Assessment System for Children, Third Edition (BASC-3) questionnaire for each child at the beginning and the conclusion of the study. Each questionnaire will take 10-20 minutes per student. For further information on the BASC-3, please refer to the manufacturer’s website:

**Risks/Discomforts of Being in this Study**

There are no reasonable foreseeable (or expected) risks. There may be unknown risks.

**Benefits of Being in the Study**

The benefits of participation for you and your students include: an increased awareness of student’s ability to identify emotions and increased student knowledge of social skills necessary for academic success within the school setting.

**Confidentiality**

Student’s identifying information will be used when collecting data, however, identifying information will be removed when analyzing and reporting data.

The records of this study will be kept strictly confidential. Research records will be kept in a locked file. We will not include any information in any report we may publish that would make it possible to identify you or your students.

**Right to Refuse or Withdraw**

The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* without affecting your relationship with the investigators of this study or Bellbrook-Sugarcreek School District.
**Right to Ask Questions and Report Concerns**

You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Laura Kuebel, at kuebell1@udayton.edu. If you have any other concerns about your rights as a research participant that have not been answered by the investigators, you may contact Candise Powell, Chair of the University of Dayton Institutional Review Board at (937) 229-3515. If you have any problems or concerns that occur as a result of your participation, you can report them to the Candise Powell at the number above.

**Consent**

Your signature below indicates that you have decided to participate as a research subject for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep, along with any other printed materials deemed necessary by the study investigators.

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Teacher Name: ________________________________

Teacher Signature: ________________________________

Investigator’s Signature: ________________________________
APPENDIX B

Intervention Materials