SOCIAL AND EMOTIONAL LEARNING IN A PRESCHOOL CONTEXT:

A TEACHER-LED INTERVENTION PROGRAM

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DECLARATION OF ORIGINALITY

I, Özlem Küçük Özdemir, certify that

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ABSTRACT

Social and Emotional Learning in a Preschool Context: A Teacher-Led Intervention Program

Preschool teachers play a crucial role in the social and emotional development of young children. They educate a large number of students throughout their career; thus, training the teachers can be considered as a cost- and time-effective method for improving children's social and emotional learning (SEL). This study aimed to train preschool teachers to implement an evidence-based social and emotional skills program and to examine the program's effectiveness on children's development. Four preschools were randomly assigned to experimental and control groups. Pre- and post-test evaluation was conducted with 61 children in six control classes and 85 children in seven intervention classes. All participants were between the ages of 4-6 years. Emotion comprehension and social problem-solving skills of children were assessed individually with standardized tests. Data on social competence of children was obtained by parent and teacher ratings. The intervention program included six bi-weekly teacher training sessions and weekly in-class coaching in the experimental group classes for 12 weeks. The results indicated that the intervention was effective in improving emotion comprehension and social problem-solving skills based on child report. However, parents and teachers did not observe significant differences in children's social competence levels and behavioral outcomes.

ÖZET

Anaokullarında Sosyal ve Duygusal Öğrenme:
Öğretmenlere Yönelik Bir Eğitim Programı

Anaokulu çocuklarının sosyal ve duygusal gelişimlerinde okul öncesi öğretmenleri önemli rol oynar. Her öğretmenin kariyeri boyunca çok sayıda çocuğa eğitim verdiği göz önünde bulundurulursa, çocukların sosyal ve duygusal yetkinliklerinin artırılmasında öğretmenlere yönelik eğitim programlarının zaman ve maliyet açısından verimli bir yöntem olduğu düşünülebilir. Bu çalışmanın amacı, öğretmenleri kanıt-temelli bir sosyal ve duygusal öğrenme müfredatını uygulayabilmeleri için eğitmek ve uygulanan programın etkililiğini sınamaktır. Bunun için dört anaokulu seçkisiz atama yöntemiyle kontrol ve müdahale gruplarına atanmıştır. Altı kontrol grubu sınıfında toplam 61 çocuğa ve yedi müdahale grubu sınıfından ise 85 çocuğa ön-ve son-test uygulaması yapılmıştır. Çalışmaya katılan çocuklar 4-6 yaş aralığındadır. Çocukların duygusal ve sosyal problem çözme becerileri bireysel görüşmeler esnasında standardize edilmiş testlerle değerlendirilmiştir. Çocukların sosyal yetkinlikleri ise ebeveynler ve öğretmenler tarafından ölçek yöntemiyle değerlendirilmiştir. On iki haftalık müdahale programı kapsamında deney grubundaki öğretmenlere iki haftada bir eğitim verilmiş ve uygulama için haftada bir saat sınıf içi koçluk desteği sağlanmıştır. Sonuçlar deney grubundaki çocuklarda duyguları tanıma ve sosyal problem çözme becerilerinde kontrol grubundaki çocuklara göre istatistiksel açıdan anlamlı bir ilerleme olduğuna, ancak ebeveynlerin ve öğretmenlerin çocukların sosyal yetkinlik ve davranış değişimi düzeylerinde iki grup arasında anlamlı bir fark gözlemlemediğine işaret etmektedir.

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ABBREVIATIONS

AA: Anger-Aggression

AW: Anxiety-Withdrawal

CASEL: The Collaborative for Academic, Social, and Emotional Learning

CST-R: Challenging Situations Task Revised

PKBS-II: Preschool and Kindergarten Behavior Scale, Second Edition

PSSSP: Preschool Social Skills Support Project

RCT: Randomized Controlled Trials

SC: Social Competence

SEL: Social and Emotional Learning

SCBE-30: Social Competence and Behavior Evaluation Scale - 30

STRCT: Scientific and Technological Research Council of Turkey

TEC: Test of Emotion Comprehension

CHAPTER 1

INTRODUCTION

1.1 General introduction

The first and primary responsibility for a child's care, health, emotional, social and cognitive development is assumed by his/her family (Gresham, Elliott, Cook, Vance, & Kettler, 2010). Family is the child's first social relationship context, and the family's emotional climate as well as the parenting practices in the family constitute the basis for children's emotion regulation skills (Morris, Silk, Steinberg, Myers, Robinson, 2007). Gradually the social circle of the child enhances to include other microsystems like peers and the childcare/school system (Bronfenbrenner & Morris, 1998).

With global sociocultural changes, particularly rural-to-urban immigration, demands on the developing child has raised (Kagitcibasi, 2012). As the number of working women increased, more babies and young children have to spend majority of their awake hours away from their parents in childcare centers or preschools. When children cannot fully benefit the advantages of growing up in the family environment where they can receive one-to-one attention, cuddling and warmth; their ability to love, think, empathize with others, being aware of own and others' emotions cannot flourish from early years onwards (Greenspan, 2001).

Considering the negative outcomes associated with children who do not display age-appropriate social and emotional competence, the popularity of social and emotional learning programs implemented at preschool context have increased over the last 20 years (Beelmann & Lösel, 2006; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Joseph & Strain, 2003, Zins & Elias, 2007).

Policymakers, teachers and researchers have been looking for more accurate answers to questions like what are the components of social and emotional competencies, how can they be taught in school settings, why some social and emotional learning (SEL) programs are effective and some are not and how can we assess the effectiveness of the programs (Weissberg, Durlak, Dimitrovich, & Gullotta, 2015; Jones & Dolittle, 2017; McCelland, Tominey, Schmitt, & Duncan, 2017). Since this is an extensive domain, it would be useful to define some key terms first, and then move on to development and implementation of effective SEL programs.

1.2 Definitions of some key terms

Previous studies suggest that social and emotional skills, competence and SEL are broad umbrella terms (e.g. Caldarella & Merrell, 1997; Dodge, Pettit, McClaskey, & Brown, 1986). There is also some confusion in the field as various disciplines and organizational systems might be using different names for the same set of skills or conceptualize different skill sets under the same name (Jones & Dolittle, 2017). Based on different theoretical perspectives (such as social learning, cognitive and behavioral theories), socio-emotional skills have been referred as "character education, personality skills, 21st-century skills, soft skills and non-cognitive skills" besides other names in circulation such as "people skills" and "emotional intelligence" (Goodman, Joshi, Nashim, & Tyler, 2015; Jones & Dolittle, 2017; McCelland, Tominey, Schmitt, & Duncan, 2017). In this section we will try to define the main concepts briefly from a developmental perspective for the preschool years.

1.2.1 Emotional skills and competence

Emotions organize psychological and social processes such as focusing attention, initiating and maintaining social relationships, and engaging in problem-solving activities (Cole, Martin, & Dennis, 2004). In general, emotional competence involves recognition of one's own and others' emotions, expression of emotions, regulating emotion-related behaviors according to situational demands and solving emotionally-laden problems (Denham, 2005), empathy and perspective taking (Izard et al., 2001). Even though all components of emotion competence skills are interrelated, managing emotional processes, such as emotion regulation is a critical component of SEL given its predictive role on later social adjustment outcomes (Denham & Bassett, 2018; Denham et al., 2014).

Studies with infants found that emotion regulation starts developing at infancy, but infants' capacity to regulate their emotions is limited, and emotions are both regulated and regulating in the context of social interaction, mainly the mother and child interaction (Cole et al., 2004). Kopp (1989) observed that as cognitive, motor and verbal abilities develop, infants and children can make use of a broader range of strategies to regulate their emotions. With regard to emotion regulation, at very early months, infants can only engage in sucking thumbs or other objects, they close their eyes or turn their heads to the opposite direction for avoiding a distressing situation. Eventually they learn to associate memories of previous events and experiences. For instance, they might stop crying when they hear footsteps anticipating that an adult is approaching to them. With regard to emotion recognition and expression, there is evidence that children between the ages two and four can acquire information about the antecedents and consequences of emotions and verbally identify them. They may recognize, define and evaluate the causes of

emotions and the contextual representations of events. Over the preschool years, children get to plan actions to avoid a stressful event, ask for help or engage in other activities to distract themselves (Kopp, 1989). They can also engage in less self-soothing and start more complex interactions and manipulating objects for regulating their emotional states (Diener & Mangelsdorf, 1999).

1.2.2 Social skills and competence

Social skills can be defined as specific class of skills that an individual performs to successfully complete a social task such as entering into a peer group, playing games with peers, making friends, and initiating or sustaining a conversation with others (Wigelsworth, Humphrey, Kalambouka, & Lendrum, 2010). Such tasks also include cooperative skills like working well with others, following the rules and adult commands; and self-control and regulation skills such as inhibiting actions, focusing attention and disregarding distractive stimuli (Bierman, Domitrovich, & Darling, 2009; Goodman et al., 2015).

Executive function skills which consist of cognitive flexibility, goal setting, working memory, information processing and inhibitory control (Anderson, 2002) are also a significant component of performing social skills (McClelland, Tominey, Schmitt, & Duncan, 2017). Infants and young children initially develop attentional control, and later on the other cognitive regulation skills that can help them switch between tasks, attend to and remember the instructions that they are given and control their impulses to reach a goal. (McClelland et al., 2017).

Children who perform age-appropriate social and emotional skills are regarded as socially and emotionally competent (Gresham et al., 2010). These children can display successful social functioning among peers and respond flexibly

in different social situations (Howes & Matheson, 1992). For instance, they can initiate play, respond appropriately to a peer's initiation, and resolve conflicts in social interactions (Howes & Matheson, 1992). On the other hand, children who lack these competencies may experience problems in building or maintaining satisfactory interpersonal relationships with their peers and teachers. They are more likely to develop behavioral problems, anxiety symptoms, and experience school-related problems (Barrett & Turner, 2001; Durlak et al., 2011; Gresham et al., 2010). If not intervened at early ages, these social and emotional competence deficits may lead to long-term difficulties in multiple areas like psychosocial, academic and occupational domains of functioning (Durlak et al., 2011; Gresham et al., 2010).

1.2.3 Social and emotional learning

Weissberg and his colleagues (2015) argue that families, teachers, policy-makers and researchers mainly agree that the main purpose of education is "raising children who are knowledgeable, responsible, caring and socially-competent – on their way to becoming positive family members and neighbors, contributing citizens and productive workers" (p. 4). In order to discuss, develop and implement effective strategies to meet these goals and promote social, emotional and academic competence of the youth, a meeting was held at Fetzer Institute. The term social and emotional learning was introduced in 1994 following this meeting (Elias et al., 1997). The educators, child advocates and researchers who attended this meeting also started the Collaborative for Academic, Social and Emotional Learning (CASEL), which aims to develop evidence-based SEL programs, which can be implemented from preschool throughout high school years (Weissberg et al., 2015).

SEL programs target five main domains of knowledge, skills and competence to enhance children's capacity for cognitive as well as emotional skills, which would help them successfully complete tasks and cope with socially challenging situations (CASEL, n.d.). According to Weissberg and his colleagues (2015), the first domain is "self-awareness." It involves understanding one's own emotions, personal values and goals in life. This helps children understand the interconnections between affect, thoughts and behaviors. While promoting optimism and a sense of self-efficacy, self-awareness also incorporates skills to realistically assess own strengths and limitations. The second domain is "self-management" and includes developing the skills to engage in emotion and behavior regulation strategies such as controlling impulses, delaying gratification of needs, managing stress and working persistently to achieve goals. The third domain is "social awareness". It involves comprehension of social norms, empathizing with others, understanding and tolerating diversity and the ability to benefit from the support and resources of family, school and community. The fourth domain is the "relationship skills" domain. Competence in these skills involve clear communication and active listening, initiating and maintaining healthy and satisfactory relationships while negotiating conflict when necessary, and not accepting inappropriate social demands. Finally, the last domain of competencies is "responsible decision-making." The skills required for this domain involve the ability to assess the consequences of actions in various situations, take ethical standards, and consider the well-being of oneself and others (see Figure 1).

Fig. 1 SEL competencies wheel (CASEL, 2017)

1.3 Expected SEL outcomes

CASEL's conceptual model suggest that the short-term student outcomes of SEL programming outcomes would include gaining social and emotional skills to help children have positive attitudes toward self, others and given tasks, performing positive social behaviors, and improving academic performance. Additionally, it is expected to reduce emotional distress and conduct problems of children and youth. Long term SEL outcomes are listed as increased high school graduation and readiness for further education or work life, mental health, engaged citizenship and decline in criminal behavior (CASEL, n. d.).

Supporting CASEL's conceptual model, many studies found that learning social and emotional skills at early ages helps children build and maintain satisfactory interpersonal relationships and contribute to their school adaptation and

academic achievement (i.e. Durlak et al., 2011; Jennings & Greenberg, 2009; Kelly & Berthelsen, 1995; McClelland, Morrison, Frederick, & Holmes, 2000). Research findings also suggest these skills and competencies act to help them deal with the increasingly demanding social, emotional and academic tasks (Elias et al., 1997; Fantuzzo, Coolahan, Mendez, McDermontt, & Sutton-Smith, 1998; Ladd, 1990).

With respect to the long-term outcomes, a study conducted by Goodman and her colleagues (2015) for the Early Intervention Foundation in the UK examined the relationship between children's socio-emotional skills and adult outcomes in mid-life. They used data from a large and representative sample of around 17.000 people, and measured "social skills, emotional health, self- esteem, locus of control, conscientiousness, good conduct and academic self-concept" of children at the age of 10 and at regular timelines until the age of 42. The results indicated that positive self-perceptions and self-awareness, social skills and self- control and self-regulation skills were generally positively and significantly correlated with mental health, life satisfaction and wellbeing, as well as with higher income, job satisfaction, higher degrees, and wealth. Children who scored higher on majority of these skills also rated themselves as healthier, they smoked less, experienced fewer clinical problems, drinking problems and obesity (Goodman et al., 2015).

1.4 SEL in preschool context

As preschool education becomes more widespread, it becomes more challenging to serve ethnically, culturally, and economically diverse children at different levels of learning capabilities and motivations (Durlak et al., 2011). Some children in the preschools, especially coming from high-risk families might already have severe

emotion regulation problems, which might place them at further risk for both social and academic development (Durlak et al., 2011; Jennings, 2014).

Within this context, the quality of childcare and preschool education is also considered to play a significant role in fostering young children's social and emotional skills and prepare them for school (Jennings & Greenberg, 2009; Kelly & Berthelsen, 1995; Webster-Stratton & Reid, 2004). Accordingly, families' expectations from preschool education have widened to include social, emotional and self-regulatory skills besides cognitive and academic skills (Bierman et al., 2009; Jenning & Greenberg, 2009). Hence, teaching young children has become a more demanding job as teachers are required to know how to assess social competencies and provide supportive interventions when necessary (Kemple, 2004)

Research findings also imply that teachers need additional support to strengthen social and emotional skills in young children (Joseph & Strain, 2003). However, if teachers do not have the resources to manage social and emotional challenges in their classroom context, this, in return, has been shown to negatively impact teachers' performance, the classroom atmosphere, as well as child outcomes (Marzano, Marzano, & Pickering, 2003).

1.5 Effectiveness of SEL programs

What makes a SEL program effective is a major question that should be considered when developing or deciding to implement a program. Because research findings suggest that not all SEL interventions are effective in teaching and supporting social and emotional skills, and some group of children and adolescents benefit more than the others (Jones & Dolittle, 2017). So, in this section the factors that impact effectiveness of a SEL program such as the scope of the program, participant and

program characteristics, such as content, context and duration of implementation, and who the implemented the program will be reviewed.

1.5.1 Scope of the program

Barrett & Turner (2001) indicated that SEL programs can be delivered in three different ways. Universal SEL programs are applied to all members of a group regardless of their risk status. Alternatively, there are selective prevention programs, which target at-risk individuals and indicated prevention programs, which target those individuals with mild symptoms or those at high risk of developing a psychological disorder (Barrett & Turner, 2001).

A study by Conduct Problems Prevention Research Group (2010) on the effects of universal SEL interventions suggested that the school-based universal interventions have some advantages over selective and indicated programs (Bierman, et al., 2010). One advantage is that the newly learned skills can be generalized easier where there is no ground for stigmatization (Barrett & Turner, 2001). Additionally, when only high-risk children are gathered in the same classrooms for intensive intervention, more disruptions may be observed compared to children with varying levels of socio-emotional skills in universal intervention classrooms (Barrett & Turner, 2001). The universal programs are also known to be cost effective and easier to implement (Offord, Kraemer, Kazdin, Jensen, & Harrington, 1999).

On the other hand, some studies suggest that selective and indicated programs targeting children with specific problems such as depression may be more beneficial. Horowitz and Garber (2006) reviewed 30 studies and found that effectiveness of selective and indicated programs targeting depression were higher

than universal programs both at post-tests and follow-up assessments. Their meta-analysis also revealed that treatment programs were more effective than preventive programs (Horowitz & Garber, 2006). Another meta-analysis conducted by Stice, Shaw, Bohon, Marti, and Rohde (2009), reviewed 47 trials and 32 prevention programs targeting depression also found that larger effect sizes are calculated for selective interventions conducted with high-risk participants.

A more comprehensive meta-analysis of 53 studies and 14,406 participants reported that both universal programs and programs targeting children and teenagers at-risk or diagnosed with depression found significant effects and these effects were sustained up to 12 months after the interventions (Merry et al., 2012). Another meta-analysis including 31 universal social problem-solving interventions in preschool settings found significant improvements in social competence and decline in externalizing problems of children who participated the programs, compared to children in the control groups (Barnes, Wang, & O'Brien, 2018). Similarly, Blewitt and her colleagues (2018) reviewed 63 studies with 18,292 participants and found that universal SEL curriculum interventions in childcare centers and preschools demonstrated that children in intervention groups improved their social and emotional competence, emotional regulation and early academic skills. In the following section, some reasons for the effectiveness of selected programs will be offered.

1.5.2 Participant characteristics

McClelland and her colleagues (2017) suggest that there is no "one-size fits all" intervention approach. Some researchers advocate the "compensatory hypothesis" and argue that children with poorer social and emotional skills, particularly those

from high-risk and low-income families, would benefit more from interventions because there is more room for improvement for them (e.g. Stice et al., 2009). On the other hand, researchers who advocate the "accumulated benefits hypothesis" suggest that children from higher-income families, who already have established higher social skills would benefit even further, as they can use more skill sets to utilize new learning opportunities and build on their existing skills.

To date, the compensatory hypothesis has received more research support (McCelland, et. al., 2017). In fact, a lot of evidenced-based intervention programs such as Incredible Years Series: Dinosaur School (Webster-Stratton, 1990) and Promoting Alternative Thinking Strategies: PATHS (Kusche & Greenberg, 1994) initially targeted at-risk children, either for misconduct problems or special education needs. However, more research needs to be conducted with children from more diverse backgrounds (Bierman & Motemedi, 2015; McCelland, et. al., 2017).

1.5.3 Program characteristics

Durlak and his colleagues (2011), have conducted a meta-analysis of findings of 213 SEL programs involving 270,034 participants from kindergarten children to high school students. All these programs were universal and school-based SEL programs. The conclusion from this meta-analysis emphasizes that SEL programs are more likely to be effective if they follow four recommended practices. The first practice involves using a series of activities such that new behaviors and complex tasks are divided into smaller steps. Lesson plans and program manuals are usually organized to link these sequenced learning steps. The second practice requires active forms of learning where students act on the material for skill acquisition, while the third practice refers to devoting sufficient time and attention for the development of social

and emotional skills. Finally, the last practice involves setting explicit, specific learning goals for children about the behaviors and skills they are expected to learn. The acronym SAFE is used to indicate these recommendations, formed by the initials of "sequenced", "active", "focused" and "explicit" practices (Durlak et al., 2011).

Another component that affects program effectiveness is the content of curriculum activities. Those programs that were found to be effective particularly for school-based universal interventions involve active participation of children and used a variety of games, stories, group interactions and discussion sessions, role plays, and skits with puppets or dolls (Bierman et al., 2009; Durlak et al., 2011; Joseph & Strain, 2003; Ocak &Arda, 2014). These activities make skill teaching concrete, brief, interesting, and engaging. Additionally, such programs should help children improve their vocabulary and expressive skills as well as social reasoning skills (Bierman & Motamedi, 2015).

Bierman and Motamedi (2015) also suggest that the SEL programs should provide children adequate opportunities to practice the skills with the support of an adult, who would provide them with feedback. A similar finding for behavior change has also emerged from the meta-analysis of 77 parent training programs. This meta-analysis also emphasized that in-session practices of new skills and getting feedback for the performance is critical for behavior change (Kaminski, Valle, Filene, Boyle, 2008). Furthermore, programs that assign homework to exercise the targeted skills outside the sessions produce larger effects (Stice et al., 2009). All these findings point to the importance of practice and feedback, both in the session and outside the session to strengthen the newly acquired skills that produce behavior change.

The context where the program is implemented is also critical for program effectiveness. There are many studies which indicate that both school and family involvement play a significant role in the success of prevention and intervention programs (Joseph & Strain, 2003; Morris et al., 2007; Ocak & Arda, 2014; Ömeroğlu et al., 2012). For example, Webster-Stratton, Reid, and Hammond (2001) expanded their Head Start parent training program with a comprehensive teacher training program and found better intervention effect than a previous study, which only involved parent training (Webster-Stratton, 1998). However, the meta-analysis by Durlak and his colleagues (2011) did not find larger effects for multi-component programs, in which teacher-led classroom-based interventions are supplemented with the involvement of families.

Some meta-analyses examined the effectiveness of SEL programs based on who implemented them (e.g. Durlak et al., 2011; Beelmann & Loisel, 2006). Durlak and his colleagues (2011) found that school-based programs implemented either by teachers or by non-school personnel such as researchers, had small but significant effects to reduce conduct problems and emotional distress of children and the youth. However, Bierman and Motamedi (2015) argue that when conducting teacher-led intervention programs, it should be considered that there are many preschool teachers who don't have four-year degrees, in fact some have only high school degrees. Hence, they might not be familiar with teaching skills that would promote social and emotional development of young children. Hence, most evidence-based interventions combine teacher workshop trainings with in-class mentoring and use technology, like PATHS program's web-based "My Teaching Partner" platform, which provides teachers with on-line coaching and consultation. This is particularly

important given the research evidence for the role of treatment fidelity on treatment quality (Beelmann & Loisel, 2006).

Another issue that requires attention is the dosage of the intervention (Durlak et al., 2011; McClelland et al., 2017). It can be argued that the required exposure for significant outcomes depends on the intervention components and the social and emotional needs of the participants. However, more research is needed to assess the minimum or adequate levels of exposure for effective results with children from diverse backgrounds and needs (McClelland et al., 2017).

1.6 Some evidenced-based SEL programs

More than 500 research studies have been conducted to test the effectiveness of various types of SEL interventions, and the majority of those studies involved school-based universal programs (Durlak et al., 2011). These programs vary in terms of the theory behind them, and the degree of emphasis they give on behavioral, cognitive or emotional outcomes of social and emotional skills, but they all recognize the role of supportive and responsive adults such as parents and teachers for achieving the expected outcomes (Bierman & Motamedi, 2015). Not all programs have been tested with high standard research methods like randomized controlled trials and proven to have the same level of evidence across investigators, across settings and participants from diverse backgrounds (Joseph & Strain, 2003; Bierman & Motamedi, 2015). Hence, a number of effective school-based SEL programs for preschool children, which were also implemented in Turkey will be briefly summarized here.

"Incredible Years Series: Dinosaur School Program" is a program that has proven its effectiveness through randomized trials conducted by the developers and

independent researchers (Bierman & Motamedi, 2015; Joseph & Strain, 2003). It was initially developed by Webster-Stratton (1990) as a selected prevention program targeting mainly children with misconduct problems between the ages 4-8 years. Its curriculum involves various activities like role plays, puppets and video modelling of positive classroom behaviors, self - regulation, emotion recognition skills and social problem-solving strategies (Webster-Stratton, 1990). The effectiveness of this program has been mainly assessed in low-income, ethnically diverse Head Start classrooms (Webster-Stratton et al., 2001; Webster-Stratton, Reid, & Stoolmiller, 2008; Webster-Stratton & Herman, 2010). The Dino program can be integrated into a multi-component program with parent and teacher trainings. The results of the study indicated that children's problem behavior observed by parents and teachers have declined significantly as a result of acquiring social problem-solving skills, and this further had a positive impact on parent-child interactions (Webster-Stratton et al., 2001; Webster-Stratton et al., 2008; Webster-Stratton & Herman, 2010).

Additionally, the "Incredible Years Teacher Training Program" was developed to target improvements in teachers' positive classroom management skills and reduce children's externalizing problems. During implementation, the teachers were trained for several days, and researchers or mental health consultants made weekly visits to classes (Webster-Stratton & Herman, 2010; Webster-Stratton & Reid, 2004). The results indicated that the program has been successful as teachers in the intervention group exhibited more sensitive, and positive behavior management skills and created positive classroom climates compared to the "usual practice" classrooms. These teacher outcomes led to higher child engagement in academic skills and improvements in parent-child interactions, social and emotional

competence, problem-solving skills and less conduct problems were observed in intervention classrooms (e.g. Webster-Stratton & Herman, 2010).

"The Incredible Years Child Training Program" was adapted into Turkish and its effectiveness was tested by using a pre- and post-test experimental design (Bayrak & Akman, 2018). The participants were 32 children aged between 48-66 months and were randomly assigned to control and intervention groups. The program was covering 18 sessions for two hours, on two days a week, and it was implemented by the researcher to children in the experimental group in addition to the usual preschool curriculum. Children in the control group received the preschool curriculum only. The results indicated that social problem-solving skills of children in the experimental group improved more than the control group (Bayrak & Akman, 2018).

"Preschool PATHS (Promoting Alternative Thinking Strategies) Curriculum" is another effective SEL program as evaluated by multiple researchers (Bierman & Motemedi, 2015; Blewitt et al., 2018; Greenberg & Kusche, 2006). The aim of this program is to improve children's pro-social behaviors and friendship skills, as well as improve children's capacity to use language in order to support their emotion literacy and regulation, social problem-solving and inhibitory control (Greenberg & Kusche, 2006). The activities in this program are designed as brief circle time lessons, which use stories and puppets. There are 33 activities in total to be delivered once or twice a week. Parents are also sent newsletters and home activities, but there is not a parent training module of the intervention (Domitrovich, Greenberg, Cortes, & Kusche, 1999).

PATH program was recently implemented in four preschools in Turkey (Bilir-Seyhan, Ocak-Karabay, Tuncdemir, Greenberg, & Domitrovich, 2019). The

program effectiveness was tested by using a quasi-experimental design with 285 children in intervention group and 280 children in control group. Researchers found that the intervention group children showed higher levels of positive feelings, pro-social behaviors and compliance compared to the children in the control group. Additionally, teachers in intervention classrooms rated children higher on social competence, emotion regulation and positive interpersonal relationships. Also, children in the intervention group reported more positive feelings towards teachers than the control group children. On the other hand, teachers in the intervention group considered their relationship with children as more dependent compared to the control group teachers (Bilir-Seyhan et al., 2019).

Another evidence-based intervention program which has proven effectiveness across clinically and culturally diverse groups (Joseph & Strain, 2003) is the "First Step to Success" program (Walker et al., 1998). This program was designed as a preventive program for young and at-risk children who demonstrate externalizing problems which might be early signs of anti-social behaviors. It was composed of three modules. The first one involves screening all kindergartens to identifying children who are aggressive, victimizing, or oppositional defiant children. The second module involves school intervention which involved target child, his/her peers and teachers. The third module is a teacher and parent training module for supporting the child for social adjustment to school. Research suggests that the program improves adaptive skills of the child, decreases the externalizing problems and levels of aggression while improving academic engagement time of the target child (Joseph & Strain, 2003).

In order to identify and prevent externalizing behavioral problems of children at early ages, Scientific and Technological Research Council of Turkey (STRCT)

supported adaptation of this program into Turkish, and its effectiveness was tested by randomized controlled trial with 24 children between the ages of 6-8 years (Diken, Cavkaytar, Batu, Bozkurt, & Kurtyilmaz, 2010). There were 12 children in the intervention group and 12 children in the control group. The results indicated that social skills and academic competence of children in the intervention group increased, while their behavioral problems decreased significantly, and parents and teachers who attended the program reported that they were highly satisfied with the program (Diken et al., 2010).

"I Can Problem Solve" (ICPS) is one of the earliest SEL programs (Bierman et al., 2009), which adopts a cognitive approach for improvement of interpersonal problem-solving skills of children (Shure & Spivack, 1982; Shure, 1992). It is a universal teacher-led program which can be integrated into the school day curriculum. There is also a supplementary ICPS program for parents. The program aims to teach children "how to think, not what to think" to help them solve social problems with adults or peers; reduce and prevent internalizing and externalizing problems; and help parents and teachers implement a "problem-solving style communication" so that children can associate the relationship between their thoughts and behaviors and help children think flexibly to come up with alternative solutions to their problems. The intervention program is recommended to be applied as at least a 20-minute session a day for four months. It utilizes sequenced games, and dialogues so that children learn the vocabulary and improve their verbal skills (Shure, 2001).

The effectiveness of this study was also evaluated in Turkey with 83 preschool children between 5-6 years of age (Anliak & Sahin, 2010). The results showed that children in the experimental group improved their pro-social and

introvert behaviors significantly more than the children in the control group (Anliak & Sahin, 2010). Ozcan, Oflaz, Turkbay, and Clevenger (2012) also tested the effectiveness of this program with a quasi-experimental design. Thirty-three children with attention deficit and hyperactivity disorder (ADHD) between the ages of 6-11 participated the study, and the results based on parents' and teachers' ratings indicated significant improvements in social competence of children as well as decline in children's attention difficulties, internalizing and externalizing problems associated with ADHD (Ozcan et al., 2012).

1.7 SEL programs developed in Turkey

Evidence based SEL programs for preschoolers developed in Turkey are limited in numbers (Ocak & Arda, 2014; Ömeroğlu et al., 2012; Türnüklü, 2004). Two universal SEL programs implemented by researchers, and tested program effectiveness by pre-and post-test and follow-up-controlled design are "Play Based Social Skills Development Program" (Durualp & Aral, 2010), and "The Psychosocial Development Education Program" (Şahin & Ömeroğlu, 2015). The post-test and follow up assessments of both studies indicated that social and emotional competence scores of children in the intervention groups improved significantly more than the scores of children in the control groups.

In Turkey, one of the most extensive social skills programs for preschoolers was developed under the "Preschool Social Skills Support Project" (PSSSP). This project was carried out for Ministry of National Education (Ömeroğlu et al., 2012) with the support of Scientific and Technological Research Council of Turkey (STRCT), and all teacher training and program implementation materials were available to public on the web site of the ministry. It was a teacher-led universal

program which could be integrated into existing curriculums of preschools for children between 36- 60 months. Based on developmental differences, there were two separate programs for 3-year old children and for children between 4-5 years old. One significant advantage of the program is that the activities in the program were developed by taking the culture and resources of the preschool system in Turkey into consideration (Ömeroğlu et al., 2015). Hence, the 12-week intervention program implemented for this study was also selected from the activities of PSSSP. The development process of the PSSSP was geared towards the training needs of teachers in three cities. Panel discussions were carried out to evaluate existing intervention programs in Turkey and abroad. Consequently, five social skill dimensions were identified (Ömeroğlu et al., 2012).

The first dimension covered basic skills such as communication skills, greeting others, introducing self and others, asking for permission, and ability to thank others. Skills in the second dimension targeted supporting academic skills like asking questions, expressing opinions, and being open to criticism. The third group of skills aims to improve the friendship skills of children such as inviting peers to play, offering help, cooperating with peers, and respecting others' ideas. The fourth group of skills is about emotion regulation, and also involve emotion recognition, coping with frustration, expression of emotion appropriately, and self-appraisal. The last dimension covers self-control skills such as protecting own and others' rights, delay of gratification, coping with stress and ability to think before producing a response (Ömeroğlu et al., 2012). PSSSP involves an activity pool, created with over 200 activities by taking the age groups and individual differences of children into consideration.

Considering the need for training the preschool teachers on social and emotional learning, a guidebook was prepared. The guidebook provides the teachers with some theoretical approaches behind social and emotional skills training and teaching methods when implementing the proposed SEL program. One hundred and thirteen teachers participated a 5-day training program which covered both the content of the guidebook and practical implementation of some activities in the activity pool. The teachers were tested before and after the training on the content of the guidebook. The results indicated that the increase on test scores of the teachers was statistically significant (Ömeroğlu et al., 2014).

The effectiveness of this teacher-led social skills intervention program was evaluated with a pre- post-test experimental design study. A total of 444 children in the classes of 38 teachers who previously completed the teachers' training program were assigned to the experimental group. The control group consisted of 104 children whose teachers worked in the neighboring schools and volunteered to participate the study. The draft social skills program was implemented by teachers for 3 months in the experimental group. Members of the research team observed the teachers during implementation of 12 selected activities to assess implementation fidelity. The results indicated that children in the experimental group improved their social skills more than the children in the control group (Ömeroğlu et al., 2015).

1.8 The proposed study and hypothesis

Preschool teachers play a crucial role in the social and emotional development of young children; however they report that one of the most important challenges they face is children's lack of social skills and the lack of intervention strategies that they can implement (Joseph & Strain, 2003). Considering that each teacher educates a

large number of children throughout their career, many children can benefit if the educators are provided with evidence-based SEL programs and trainings for effective implementation (Webster-Stratton et al., 2001).

This reason has prompted us to prefer a teacher-led program implementation rather than a researcher-led implementation. Secondly, most Turkish preschool teachers are not provided with a SEL curriculum that they can access, and they have difficulties in finding effective programs to enhance the social and emotional competence of children. The municipality preschools that were contacted in Bakırköy have been particularly concerned about the lack of SEL component in their curriculum. The "Preschool Social Skills Support Project" (Ömeroğlu et al., 2012) was a program which was made available to all preschool teachers on the official web site of Ministry of National Education, and we believed that this would contribute to sustainability of the positive effects of this study, particularly for the teachers. Thus, we chose this program to implement and examine its effectiveness by using a randomized controlled trial. Another reason for choosing this program was that it has a conceptual framework of social learning theory and utilizes cognitive, emotional and behavioral approaches to prompt children's social and emotional skills. The activities were developed by Turkish researchers, and included well-known songs, riddles, and games. Each activity was explained in detail and required modeling of the teacher while practicing target skills with children.

The first hypothesis of this study was that children in the intervention group would improve their social competence scores as rated by their mothers and teachers more than children in the control group between pre- and post-test. The second hypothesis of this study was that mothers' and teachers' ratings of externalizing problems such as anger and aggression in the intervention group would decline more

than children in the control group between pre- and post-test. Third, it was expected that mothers' and teachers' ratings of internalizing problems such as anxiety and withdrawal would decline more in the intervention group compared to children in the control group. Finally, it was hypothesized that children in the intervention group would improve their emotional and social problem-solving skills more than the children in the control group.

CHAPTER 2

METHOD

2.1 Design

Four preschool programs of Bakırköy Municipality participated in the present study. These municipality preschool programs were in different neighborhoods of Bakırköy and delivered services to 3- to 6-year-old children. As the preschools had different locations, randomization took place at the building level by lottery. For instance, if a building was assigned to intervention class, all 4- and 5-year-old classes in the building was assigned to intervention group. These four preschools were randomly assigned to control and experimental groups. Within each group, classrooms of 3-year-old children were excluded. The final total sample contained seven intervention classrooms where the SEL program was implemented, and six control classrooms. A total of 13 teachers participated in the teacher training. All participating parents and teachers in both groups completed the inventories, and the children were assessed individually at the pre-and post-test.

2.2 Participants

A total of 220 consent forms were sent to families in intervention and control classrooms. Of those invited, 172 families accepted to participate in the study. Ninety-seven of these families were from intervention classrooms, and 75 of them were from control classrooms. Throughout the study, 10 out of 97 children from the intervention classrooms, and 13 out of 75 children from control classrooms dropped out. Teachers filled in pre-test Social Competence and Behavior Evaluation Inventory 30 (SCBE-30) and Preschool and Kindergarten Behavior Scale II (PKBS-

II) social skills subscale forms for 17 of these children. However, mothers' ratings and demographic information were not available for the majority of these children who dropped out. Based on teachers' ratings, there were no statistically significant differences between the mean scores of children who dropped out of the program and who remained in the program.

After preliminary analysis, one child from the intervention group and one child from the control group were excluded given their extreme scores ($Z < -4$ or $Z > 4$) on majority of their measured study variables. Consequently, the total number of participants of the present study is 146. Of those, 85 children are from the intervention classrooms, and 61 children are from control classrooms. On average the children were 59.13 months old. The demographic information (age, gender) of children at the outset of the study is presented in Figure 2.

The results also indicated that there were statistically significant differences between control and intervention groups in some demographic variables (see Table 1). Mean age of children in pre-test were significantly different, F (1,144) = 15.09, $p < .01$. Children in the control group were younger than children in the intervention group at pre-tests. As family income was positively and significantly correlated with mothers' education ($r = .49$, $p < .01$) and fathers' education ($r = .47$, $p < .01$); and mothers' and fathers' education level were also positively and significantly correlated ($r = .61$, $p < .01$) a composite socioeconomic status (SES) score was computed by combining the mean Z-scores of mother's education level, father's education level and income level of the family. The two groups were significantly different from each other such that the family SES in the intervention group was lower compared to the control group, F (1,137) = 6.91, $p = .01$ (see Table 2).

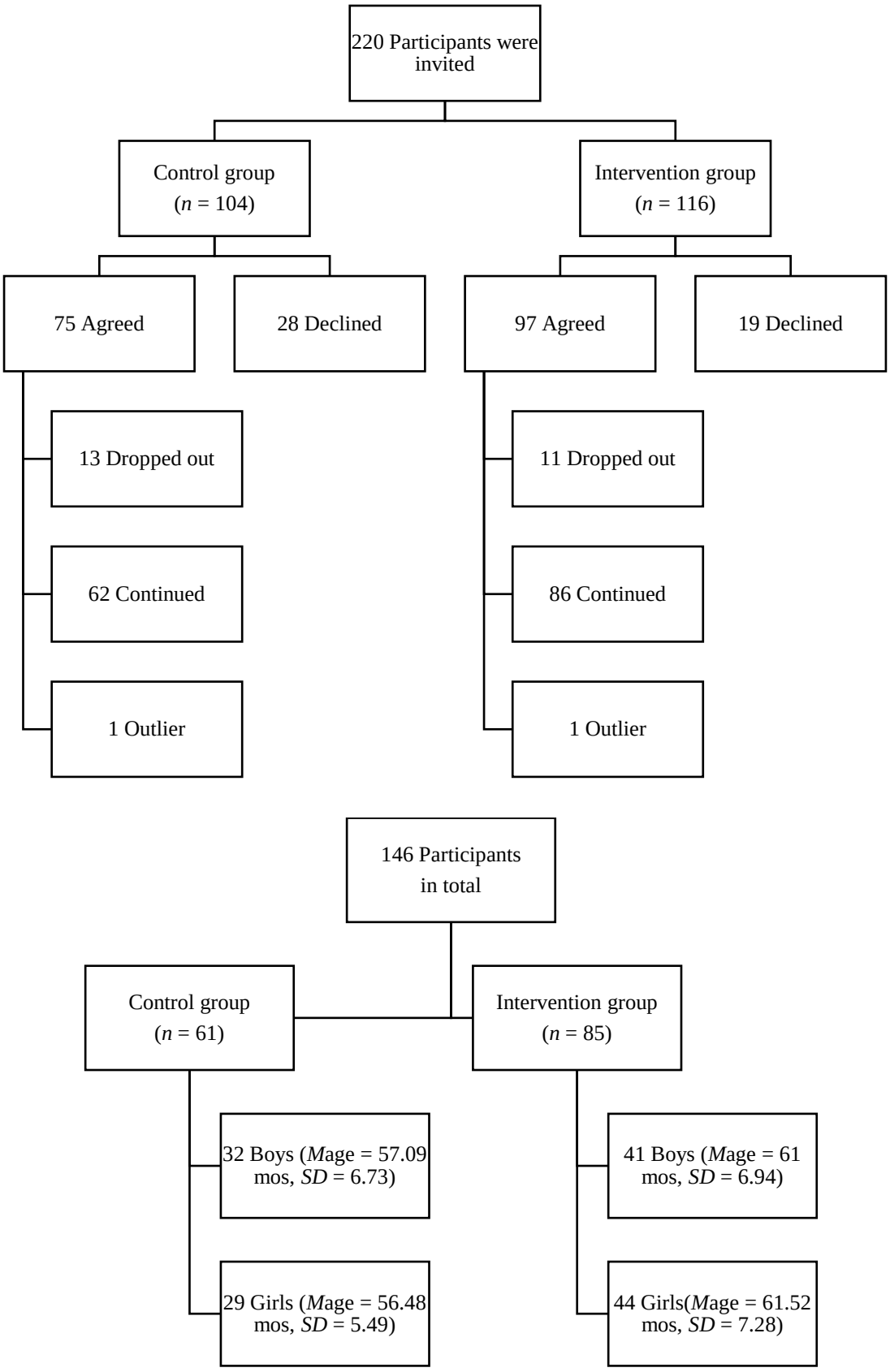


Fig. 2 Participants in intervention and control groups

Table 1. Descriptive Statistics of Demographic Variables

		Control	Intervention	
Demographics	Categories	Mean (SD) or %	Mean (SD) or %	F / Chi square
Sex	Girl	47.5	51.8	0.25
	Boy	52.5	48.2	
Pre-test Age (months)		57 (5.73)	61.27 (7.08)	15.09**
Mother's age (years)		36.98 (3.73)	37.95 (4.95)	1.56
Father's age (years)		39.83 (4.31)	40.88 (5.65)	1.38
Mother's marital status	Married	95	94.9	
	Single / divorced	5	3.8	
	Remarried	0	1.3	
	Widow	0	0	
Father's marital status	Married	93.3	94.9	
	Single / divorced	2.6	3.4	
	Remarried	1.7	1.3	
	Widow	0	0	
Number of siblings		.78 (.74)	.84 (.86)	0.17

Note. *$p < .05$. **$p < .01$.

Table 2. Socioeconomic Variables of Families

		Control	Intervention	
Variables	Categories	Mean (SD) or %	Mean (SD) or %	F / Chi square
Household income (TL)	1,000 - 3,000	10.2	15.2	11.73*
	3,001 - 5,000	17.9	26.6	
	5,001 - 7,000	28.6	29.1	
	7,001 - 10,000	35.7	12.7	
	More than 10,000	7.1	8.9	
Education level of mother				12.05
	Primary school	2 (3.3%)	7 (8.8%)	
	Middle school	4 (6.6%)	3 (4%)	
	High school	6 (10%)	13 (16.5%)	
	College	7 (12%)	15 (19%)	
	University	34 (57%)	36 (45.6%)	
	Postgraduate degree	7 (12%)	5 (6.1%)	
Education level of father				10.05
	Primary school	1 (1.7%)	6 (7.6%)	
	Middle school	5 (8.5%)	6 (7.6%)	
	High school	14 (23.7%)	23 (29.1%)	
	College	5 (8.5%)	5 (6.3%)	
	University	23 (57.6%)	31 (39.2%)	
	Postgraduate degree	11 (18.6%)	8 (10.1%)	

Note. *$p < .05$. **$p < .01$.

2.3 Intervention

The intervention program was a 12-week program with three modules. Six bi-weekly seminars were organized with teachers in the intervention group. The content of each module was taught to children by a variety of games, role plays, skits with puppets, and stories which involved discussions and active participation of children. The teachers were provided with documents describing the activities and learning outcomes, list of materials (e.g. puppets, cd players) which would be used during the activities, and a list of questions which would help children to reflect on the activities. A sample activity is provided in Appendix A (for Turkish, see Appendix B). The researcher provided to each classroom teacher one-hour mentoring each week. Additionally, families in intervention classrooms were informed by newsletters about the activities and target skills for that week. Control classrooms maintained their regular curriculum. Majority of teachers in control and intervention groups had four years degree in child development. Teachers in both groups had on average eight years of experience. Descriptive statistics of teacher demographics are presented in Table 3.

Table 3. Teachers' Descriptive Statistics

	Control	Intervention		
Variable	Frequency	Frequency		
Education				
Vocational High School	2	0		
College	0	2		
University	4	5		
Branch				
Child development	6	5		
Preschool Teacher	0	1		
Other	0	1		
Variable	Mean (*SD*)	Mean (*SD*)	*F*	*p*
Classroom Size	16.30 (2.94)	17.31 (3.45)	3.44	.07
Years of Experience	7.98 (4.02)	7.65 (2.80)	.36	.55

2.4 Procedure

Permissions were obtained from the school administrations in order to conduct the present study. Upon receipt of approvals from Institutional Review Board for Research with Human Subjects Environmental Ethics Committee, parents of children in the intervention group were sent the consent form in Appendix C (for Turkish, see Appendix D), and parents of children in the control group were sent the consent form in Appendix E (for Turkish, see Appendix F).

Pre-test evaluations were conducted with consenting families. First, parents who agreed to participate in the study were sent a Demographics Form (Appendix G) to obtain basic information about the child and his/her family (e.g. age, occupation, and education of parents, family income). Additionally, they were required to complete two questionnaires on their children's social skills and social competence as well as general adjustment. Secondly, teachers in intervention and control classrooms were also required to complete a teacher information form (Appendix H) the same questionnaires on children's social skills and competence as well as general adjustment. Third, children were assessed individually in the preschools by trained graduate or undergraduate female students. Assessments focused on children's social problem-solving skills and emotion understanding skills.

Upon completion of pre-test evaluation, the 12-week intervention program with three modules commenced in February 2017 (Appendix I). Six bi-weekly seminars were delivered to intervention classroom teachers by the researcher. The aim of these seminars was to train the teachers for implementing activities into their classroom curriculum to enhance the social and emotional skills learning. Each seminar lasted around 150 minutes. Out of seven teachers, five teachers showed full

attendance and two teachers attended over 80% of the seminars. Once a week the researcher observed the teachers in the classroom setting and acted as a mentor to support them for effective implementation of the program. Additionally, the teachers were required to fill in some check lists in order to record the completed activities planned for a particular day or week. They were also sending out the weekly newsletters to families (an example is provided in Appendix J). Teachers and children in the control classrooms were not intervened.

Upon completion of the training program, the post-test evaluation was conducted by the researcher and graduate psychology students. Individual assessments with children, and parent- as well as teacher-report of questionnaires used in the pre-test were repeated in all intervention and control classrooms. After the post-test assessments, an informal evaluation meeting was held with intervention group teachers for them to share their experiences throughout the process.

2.5 Measures

2.5.1 Social problem-solving skills

Challenging Situations Task scale (CST; Denham, Bouril, & Belouad, 1994) was used for evaluating emotional and behavioral responses of children to some peer provocation situations. The scale has two versions. In each version, there are six scenarios, in which children are either physically or socially provoked (e.g. a child is hit by a friend while playing in a sandbox, a child is rejected by a peer). In the administration of the scale, the researcher was required to read the description of each challenging situation, show the child four emotion pictures in random order, and ask the child how he or she would feel (“happy”, “sad”, “angry”, or “just okay”

in the given scenario. In the second step, the child was asked about his/her behavior in the same scenario by pointing to one of the four behavioral response cards. The drawings on these cards involved "pro-social", "aggressive", "avoidant" and "dysregulated" behaviors (Denham, Way, Kalb, Warren-Khot, & Bassett, 2013). Sample scenarios, instructions, and picture cards of this measure are presented in Appendix K.

Denham et al. (2014), in their study with preschool children assessed internal consistency of CST by using mean inter-item correlation and the scales showed acceptable reliability except for "just ok" and "dysregulated" scales. Another study which adapted CST into Turkish similarly assessed the scale's reliability based on inter-item correlations by using 3 scenarios (Kuyucu, 2012). The results revealed that the correlations for emotional responses of children were above .41 and behavioral correlations were above .49 (Kuyucu, 2012).

For the present study, test-retest reliability was computed for the control group's pro-social, aggressive, dysregulated, and avoidant responses. Reliability coefficients (*r*) were .47, .28, .41 and .05, respectively. All were statistically significant (*p*'s ranged from .05 to .01) except for the avoidant response. Test-retest reliability coefficient (*r*) for the intervention group's pro-social, aggressive, dysregulated and avoidant responses were .41, .41, .06, and .39, respectively. All *p* values were smaller than .01, except dysregulated response. Consequently, avoidant and dysregulated responses were excluded from the study data analyses.

2.5.2 Emotion understanding

The Test of Emotion Comprehension (TEC) was used for evaluating children's emotion understanding skills (Pons, Harris, & Doudin, 2002). TEC aims to assess

children's basic and complex emotion comprehension skills by presenting nine scenarios (Appendix L). These skills included emotion recognition, emotion antecedents, emotion-desire relation, emotion display rules, emotion regulation, mixed emotions, and moral emotions. There are separate TEC books for girls and boys, and children are presented stories with their same sex characters.

On each page of the book, there is a cartoon story drawing with blank faced characters, and underneath that, there are drawings of four faces with different emotional expressions (e.g. sad, happy, angry, scared). Firstly, the researcher was required to describe the scenario to the child, and then ask the child to point to the emotion of the character in that particular scenario. There are nine components of this test and the total score can range between 0 and 9 points. The complexity of the scenarios increases gradually to test whether the child can recognize emotions in the drawings, comprehend some external causes of events, that people might have mixed emotions, different desires, some moral emotions when they do something wrong, and that people can use some regulatory strategies for coping with difficult emotions (Pons et al., 2002). In a study with 9-year-old participants, a 3-month delayed test-retest correlation was .84 for control group and .64 for intervention group, and *p* values were smaller than .001 (Pons et al., 2002). For the present study, test-retest reliability coefficient for the control and intervention groups were found as $r = .31$ ($p < .05$) and $r = .36$ ($p < .01$), respectively.

2.5.2 Social and emotional competence

The Social Competence and Behavior Evaluation Inventory-30 (SCBE-30; LaFreniere & Dumas, 1996) was used to assess children's adaptation and social competence. It is a shortened form of the originally 80-item scale, yet a

comprehensive screening instrument (Gresham et al., 2010). For this study, families (Appendix M; for Turkish, see Appendix N) and teachers (Appendix O; for Turkish, see Appendix P) were required to complete the inventory for each child. The SCBE-30 has three 10-item subscales: "Social Competence" (SC), "Anger-Aggression" (AA), and "Anxiety-Withdrawal" (AW). Each item was scored from 1 to 6. The validity and reliability of the SCBE-30 have been well-established cross-culturally (LaFreniere et al., 2002). The scale has been adapted to the Turkish cultural context (Çorapçı, Aksan, Arslan-Yalçın, & Yağmurlu, 2010). The Turkish version of the scale has been shown to have satisfactory internal consistency and test-retest reliability. The scale's validity has also been demonstrated by the positive association of the social competence scale scores with emotion regulation. The Cronbach's alpha for SC, AA and AW subscales were found as .88, .87 and .84 respectively (Çorapçı et al., 2010). For this study, Cronbach's alphas for each subscale based on pre- and post-test scores rated by mothers and teachers are presented in Table 4 and Table 5, respectively.

Preschool and Kindergarten Behavior Scale II-A (PKBS-II; Merrell, 2003) was also completed by teachers and parents to measure children's social skills. In the present study, the 34- item Social Skills subscale was used to evaluate preschoolers' positive social skills (Appendix Q; for Turkish, see Appendix R). Each item was scored from zero to three. The items in this scale were grouped into three categories, namely "Social Cooperation", "Social Interaction" and "Independence" (Merrell, 2003). Research indicated that the Turkish adaptation of the Social Skills subscale of PKBS-II was valid and reliable (Fazlıoğlu, Okyay, & Ilgaz, 2011). The Cronbach's alpha for the Social Cooperation, Social Interaction and Independence subscales were found as .91, .87 and .85, respectively. For this study, Cronbach's alphas for

each subscale based on pre- and post-test scores rated by mothers and teachers are presented in Table 4 and Table 5, respectively.

For the present study, social competence ratings were aggregated by examining the correlations among the subscales scores of teachers and mothers (see Table 4). Mothers' social competence scores based on the SCBE-SC subscale and PKBS II Cooperation, Interaction and Independence subscales were significantly and positively correlated, both at pre- and post-test. Hence, these scores were aggregated into a composite social competence score for mothers, separately for pre- and post-test. Similarly, teacher ratings of the SCBE-SC subscale and PKBS II Cooperation, Interaction and Independence subscales were significantly and positively correlated, both at the pre- and post-test. Hence these scores were also aggregated into a composite social competence score for teachers, separately for pre- and post-test. The results indicated that composite mother- and teacher-ratings of social competence were not significantly correlated, both at pre- and post-test. As a result, composite social competence scores of mothers and teachers have not been further aggregated.

Mother ratings of the SCBE-AA subscale were significantly correlated with teacher ratings of the SCBE-AA subscale, both at pre- and post-test. Hence, mother and teacher ratings were aggregated. On the other hand, mother ratings of the SCBE-AW were significantly correlated with teacher ratings of SCBE-AW at the post-test only. Thus, mother and teacher scores have not been aggregated for AW subscales.

Table 4. Pre-Test Correlations Between Child Outcomes and Descriptive Statistics

Measures	1	2	3	4	5	6	7	8	9	10	11	12
1.PKBS-Coop-Mother	_											
2.PKBS-Int-Mother	.45**	_										
3.PKBS-Ind-Mother	.43**	.46**	_									
4.SCBE-SC-Mother	.45**	.45**	.27**	_								
5.PKBS-Coop-Teacher	.15	-.03	-.08	.05	_							
6.PKBS-Int-Teacher	.06	.07	.04	.09	.54**	_						
7.PKBS-Ind-Teacher	.04	.06	.09	.17	.34**	.66**	_					
8.SCBE-SC-Teacher	.27**	.12	.00	.12	.66**	.72**	.49**	_				
9. SCBE-AA-Mother	-.57**	-.14	-.24**	-.31**	-.05	-.02	-.00	-.11	_			
10 SCBE-AA-Teacher	-.21*	.03	.10	-.08	-.57**	-.09	.05	-.41**	.17*	_		
11. SCBE-AW-Mother	-.19*	-.26**	-.46**	-.29**	.10	-.10	-.21*	-.07	.21*	-.19*	_	
12. SCBE-AW-Teacher	-.05	-.11	-.16	-.05	-.14	-.34**	-.43**	-.42**	-.05	.12	.16	_
Mean	2.46	2.65	2.61	4.61	2.82	2.72	2.72	5.20	2.48	1.52	1.95	1.58
SD	.35	.28	.25	.69	.29	.34	.29	.87	.68	.55	.56	.50
Reliability – Control Gr.α)	.81	.68	.46	.72	.80	.80	.56	.66	.74	.81	.49	.66
Reliability – Intervention Gr. (α)	.75	.74	.54	.72	.91	.87	.77	.90	.80	.84	.68	.68

Note. **p* < .05. ***p* < .01.
PKBS = Preschool Kindergarten Behavioral Scales-II. Coop = Cooperation Subscale. Int = Interaction Subscale. Ind = Independence Subscale. SCBE = Social Competence and Behavior Evaluation Inventory-30. AA = Anger-Aggression Subscale. AW = Anxiety-Withdrawal Subscale. SC = Social Competence Subscale; TEC = Test of Emotion Comprehension. CST = Challenging Situations Task.

Table 5. Post-Test Correlations Between Child Outcomes and Descriptive Statistic

Measures	1	2	3	4	5	6	7	8	9	10	11	12
1.PKBS-Coop-Mother	_											
2.PKBS-Int-Mother	.47**	_										
3.PKBS-Ind-Mother	.42**	.53**	_									
4.SCBE-SC-Mother	.50**	.56**	.42**	_								
5.PKBS-Coop-Teacher	.29**	.03	-.06	.16	_							
6.PKBS-Int-Teacher	.05	.11	.13	.10	.44**	_						
7.PKBS-Ind-Teacher	.16	.13	.21*	.08	.40**	.69**	_					
8.SCBE-SC-Teacher	.18	.03	.06	.10	.69**	.72**	.54**	_				
9. SCBE-AA-Mother	-.55**	-.27**	-.24**	-.31**	-.07	.01	-.06	-.05	_			
10 SCBE-AA-Teacher	-.39**	-.05	.01	-.19*	-.58**	.07	.04	-.21*	.23*	_		
11. SCBE-AW-Mother	-.21*	-.30**	-.53**	-.28**	.10	-.11	-.16	-.03	.46**	-.14	_	
12. SCBE-AW-Teacher	-.17	-.19*	-.19*	-.15	-.22**	-.35**	-.61**	-.18*	.16	.22**	.22*	_
Mean	2.50	2.66	2.63	4.64	2.84	2.78	2.73	5.27	2.29	1.47	1.84	1.49
SD	.32	.27	.26	.71	.24	.27	.29	.74	.63	.54	.58	.55
Reliability – Control Group (α)	.84	.60	.51	.74	.82	.76	.70	.80	.81	.89	.66	.86
Reliability – Intervention Group (α)	.76	.76	.70	.79	.89	.85	.76	.93	.78	.83	.74	.79

Note. *$p < .05$. **$p < .01$.
PKBS = Preschool Kindergarten Behavioral Scales-II. Coop = Cooperation Subscale. Int = Interaction Subscale. Ind = Independence Subscale. SCBE = Social Competence and Behavior Evaluation Inventory-30. AA= Anger-Aggression Subscale. AW = Anxiety-Withdrawal Subscale. SC = Social Competence Subscale; TEC = Test of Emotion Comprehension. CST = Challenging Situations Task.

CHAPTER 3

RESULTS

First, all data were screened for missing values. As missing items for teachers' ratings were less than 1% of the total ratings, they were replaced with their respective mean values. Second, descriptive statistics for mother and teacher ratings as well as examiner ratings were computed. Third, correlations among demographic variables and child variables based on mother, teacher and child ratings were conducted. Finally, the effectiveness of the intervention program was analyzed by using general linear model-repeated measures.

3.1 Descriptive statistics

Initially, the data was checked for assumptions of normality and homogeneity of variance. Two multivariate outliers were detected by using Z-scores (+-3.0) and excluded from the dataset due to their extreme values. One of these outliers were from the intervention group, and one of them was from the control group. After that the skewness and kurtosis of variables were checked and found to be within acceptable values. The means and standard deviation scores of study variables for are presented in Table 6.

As seen in Table 6, a series of one-way-ANOVAs were conducted to explore whether baseline pre-test mean scores on outcome variables differed significantly across intervention and control groups. Results indicated that, only teacher ratings of AW and SC differed significantly between the control and intervention groups, F (1,144) = 10.71, $p < .01$, and F (1,144) = 8.77, $p < .01$, respectively. Children in the intervention group obtained significantly higher AW scores and lower SC scores.

Table 6. Descriptive Statistics of Child Outcomes Based on Mother, Teacher and Child Ratings

	Pre-test									Post-test							
	Intervention				Control					Intervention				Control			
Variables	N	Mean (SD)	Skew.	Kurt.	N	Mean (SD)	Skew.	Kurt.	Pre-test ANOVA *F*	N	Mean (SD)	Skew.	Kurt.	N	Mean (SD)	Skew	Kurt.
Social Competence –Mother combined (SCBE, PKBS)	80	3.06 (0.30)	-0.13	-0.65	60	3.11 (0.31)	-0.10	-0.60	0.98	64	3.09 (0.33)	-0.44	-0.05	56	3.14 (0.28)	0.05	-0.78
–Teacher combined (SCBE, PKBS)	85	3.29 (0.40)	-0.75	-0.46	61	3.47 (0.29)	-1.60	2.14	8.77**	85	3.35 (0.35)	-0.62	-0.85	61	3.48 (0.26)	-1.05	0.27
Anger-Aggression Mother and teacher aggregated (SCBE)	85	1.96 (0.53)	0.80	0.71	61	1.99 (0.45)	0.28	-0.51	0.14	85	1.76 (0.52)	0.63	-0.06	61	1.86 (0.49)	0.60	0.23
Anxiety-Withdrawal																	
SCBE – Mother	80	2.02 (0.62)	0.81	-0.19	60	1.85 (0.47)	0.95	0.98	3.03	64	1.96 (0.62)	0.80	0.14	56	1.70 (0.50)	0.86	1.53
SCBE – Teacher	85	1.69 (0.51)	0.75	0.35	61	1.43 (0.45)	1.22	0.97	10.71**	85	1.54 (0.55)	1.04	-0.04	61	1.43 (0.55)	1.86	2.97
Emotional Comprehension																	
TEC- Child	83	4.13 (1.78)	0.03	-0.77	60	3.78 (1.71)	0.41	-0.04	1.39	77	5.88 (1.46)	-0.10	-0.35	56	4.25 (1.61)	0.15	-0.63
Problem Solving - Child																	
CST – Pro-social	84	2.42 (1.72)	0.38	-0.66	60	2.52 (2.16)	0.33	-1.36	0.96	77	3.30 (1.97)	-0.21	-1.15	57	2.67 (1.86)	0.28	-0.92
CST – Aggressive	84	0.96 (1.53)	1.67	1.73	60	1.02 (1.53)	1.69	1.82	0.04	77	0.83 (1.29)	1.56	1.79	57	1.32 (1.72)	1.16	-0.05

Note. *$p < .05$. **$p < .01$. SCBE = Social Competence and Behavior Evaluation Inventory-30. PKBS = Preschool Kindergarten Behavioral Scales-II. TEC = Test of Emotion Comprehension. CST = Challenging Situations Task.

3.2 Inter-correlations among variables

3.2.1 Correlations among mother, teacher, and child ratings

Pre-test and post-test correlations between child outcomes are presented in Tables 7 and 8. Social competence ratings of mothers were significantly and negatively correlated with aggregated AA and mother ratings of AW, both at pre- and post-test. Additionally, mother ratings of SC were negatively correlated with teacher ratings of AW at post-test.

Teachers' SC scores were significantly and negatively correlated with teacher ratings of AW, both at pre- and post-test. However, a significant negative relationship between teacher ratings of composite SC and AA scores was observed only at pre-test.

Mother ratings of combined SC scores were not significantly correlated with any of the child reported TEC and CST scores, both at pre- and post-test. Teacher ratings of combined SC scores were also not significantly correlated with TEC scores, both at pre- and post-test. However, combined teacher SC scores were positively related to CST-Pro-social, both at pre- and post-test. Hence, it was observed that there were more significant correlations between teacher and child ratings compared to mothers' ratings. Child ratings of TEC were significantly and positively correlated with CST- Pro-social and negatively correlated with CST-Aggressive scores, both at pre- and post-test. Inter-correlation among the CST subscales revealed that CST- Pro-social scores were negatively and significantly correlated with CST-Aggressive scores, both at pre- and post-tests.

Table 7. Pre-Test Correlations Between Study Variables

Measures	1	2	3	4	5	6	7	8
1. SC – M	_							
2. SC –T	0.16	–						
3. AA – M & T	-.35**	-.20*	_					
4. AW – M	-.37**	-0.08	0.04	_				
5. AW – T	-0.10	-.44**	0.04	0.16	_			
6. TEC – C	-0.01	0.14	0.04	0.07	-0.02	_		
7. CST – Pro-social – C	-0.03	.21**	0.01	0.05	-0.11	.30**	_	
8. CST– Aggressive – C	-0.04	-0.07	-0.02	-0.08	-0.12	-.27**	-.52**	_

Note. *$p < .05$. **$p < .01$. SC - M = SCBE and PKBS Combined (Mother). SC - T = SCBE and PKBS Combined (Teacher). AA = SCBE Anger-Aggression Aggregated (Mother and Teacher). AW = SCBE Anxiety- Withdrawal. TEC – C = Test of Emotion Comprehension (Child). CST - C = Challenging Situations Task (Child).

Table 8. Post-Test Correlations Between Study Variables

Measures	1	2	3	4	5	6	7	8
1. SC – M	_							
2. SC – T	0.14	_						
3. AA – M & T	-.43**	-0.10	_					
4. AW – M	-.37**	-0.05	.23*	_				
5. AW – T	-.23*	-.35**	.26**	.22*	_			
6. TEC – C	-0.02	0.12	-0.09	0.11	0.07	_		
7. CST – Pro-social – C	0.02	.28**	-0.03	0.05	-0.10	.33**	_	
8. CST– Aggressive – C	-0.01	-0.09	0.01	-0.09	0.01	-.19*	-.69**	_

Note. **p* < .05. ***p* < .01. SC - M = SCBE and PKBS Combined (Mother). SC - T = SCBE and PKBS Combined (Teacher). AA = SCBE Anger-Aggression Aggregated (Mother and Teacher). AW = SCBE Anxiety- Withdrawal. TEC – C = Test of Emotion Comprehension (Child). CST - C = Challenging Situations Task (Child).

3.2.2 Correlations among demographic and outcome variables

The relationships between demographic variables and outcome variables are presented in Table 9. Results indicated that child age was significantly and positively correlated with teachers' ratings of social competence, both at pre- and post-test, but not with mothers' ratings. Aggregated AA scores combined from mothers' and teachers' ratings were significantly and negatively correlated with child age at post-test, but not at pre-test. AW scores rated by mothers and teachers were not significantly correlated with child age, neither at pre- nor at post-test. Child age was also significantly and positively correlated with pre- and post-test TEC and CST- Pro-social, but negatively with CST-Aggressive. In other words, older children obtained higher emotion comprehension scores and provided more pro-social behavior responses and less aggressive responses than younger children, both at pre- and post-tests.

With respect to gender differences, only girls' CST- Pro-social scores were significantly higher than boys at post-test, and boys provided more aggressive responses than girls, both at pre- and post-tests. Other ratings based on mother, teacher and child reports did not indicate gender differences.

Results of this study also indicated that post-test AW scores of mothers were negatively correlated with the composite SES score. No other child outcome was significantly correlated with family SES and maternal age. Lastly, as the number of siblings in the family increased, mothers reported lower levels of AW and children had higher TEC scores at pre-test.

Table 9. Pre- and Post-Test Correlations Between Demographic Variables and Child Outcomes

	Child Age	Sex	SES	Age of Mother	Age of Father	Number of Siblings
Social Competence						
Mother (pre-test)	-.02	-.00	.00	.10	.23**	.06
Mother (post-test)	.06	.05	.03	.15	.13	-.09
Teacher (pre-test)	.20*	.03	.04	.12	.07	.01
Teacher (post-test)	.24*	.02	.06	.13	.08	.06
Anger-Aggression						
Mother and Teacher (pre-test)	-.09	-.05	.00	-.04	-.01	.05
Mother and Teacher (post-test)	-.25**	-.08	.09	-.05	.04	.10
Anxiety-Withdrawal						
Mother (pre-test)	.11	.16	-.06	.05	-.11	-.17*
Mother (post-test)	.12	.11	-.19*	-.06	-.09	-.05
Teacher (pre-test)	.05	.13	-.14	-.12	-.10	.06
Teacher (post-test)	-.06	.16	-.08	-.03	.01	.05
Emotion Comprehension						
Pre-test TEC	.30**	.09	.08	.05	.17	.18*
Post-test TEC	.43**	-.04	.03	.11	.13	.06
Social Problem Solving						
Pre-test CST-Pro-social	.31**	.15	-.05	.06	.03	.04
Post-test CST-Pro-social	.33**	.24**	.01	.09	.11	-.04
Pre-test CST-Aggressive	-.36**	-.19*	.13	.00	-.08	-.08
Post-test CST-Aggressive	-.26**	-.30**	.06	-.05	-.18*	-.05

Note. *$p < .05$. **$p < .01$. Social Competence = SCBE and PKBS Combined. AA = SCBE Anger-Aggression Aggregated (Mother and Teacher). AW = SCBE Anxiety- Withdrawal. TEC = Test of Emotion Comprehension. CST = Challenging Situations Task.

3.3 Test of the intervention effects

First, outcome ratings from two time points of the intervention and control groups were subjected to a 2 (time) x 2 (group) mixed analysis of covariance (ANCOVA). For child outcomes with pre-test differences between control and intervention groups, namely composite SC and AW scores rated by teachers, pre-test scores of those measures rated by mothers were used as a covariate. Pre-test child age and family SES were also considered as covariates for all measures. Additionally, independent samples t-tests and paired t-tests were conducted for both intervention and control groups in order to compare the mean values of each group. The results of ANCOVA and pre vs. post paired and independent samples *t* tests are presented in Table 10.

3.3.1 Social competence

The first hypothesis of this study was that children in the intervention group would improve their social competence scores rated by mothers' and teachers' more than children in the control group between pre- and post-test. The hypothesized Group x Time interaction was not significant for mother ratings of social competence, F (1, 113) = .06, $p > .05$. The results also did not reveal any significant time and group main effects, F (1, 113) = .49, $p > .05$ and F (1, 113) = 1.40, $p > .05$, respectively.

As teacher ratings of pre-test composite social competence scores were significantly different between the control and intervention groups, the pre-test mother measures were used as a covariate in addition to the pre-test age and SES variables. The results indicated that the hypothesized Time x Group interaction was not significant, F (1, 134) = 1.79, $p > .05$. Similarly, the main effect for time was not statistically significant, F (1, 134) = 1.33, $p > .05$. On the other hand, there was a

significant main effect for group, F (1, 134) = 15.39, $p < .001$. The intervention group's mean scores rated by teachers was higher than the control group (see Table 10 for *t*-test results).

3.3.2 Anger-aggression

The second hypothesis of this study was that mothers' and teachers' ratings of anger-aggression in the intervention group would decline more than children in the control group between pre- and post-test. The results revealed that there was no intervention effect on children's aggregated anger-aggression levels, as the Time x Group interaction was not significant, F (1,135) = .00, $p > .05$. Anger-aggression scores of children declined from pre- to post-test, but there was no statistically significant main effect for time, F (1,135) = 3.35, $p = .069$, and for the group, F (1,135) = .16, $p > .05$ (see Table 10 for *t*-test results).

3.3.3 Anxiety-withdrawal

The third hypothesis of this study was that mothers' and teachers' baseline ratings of anxiety- withdrawal scores would decline more in the intervention group compared to children in the control group at post-test. The findings indicated no evidence of intervention effect on mothers' ratings of anxiety-withdrawal scores as the Time x Group interaction was not significant, F (1,113) = .59, $p > .05$. Even though a decline is observed in AW-M scores of children in both groups at post-test, the results did not reveal any statistically significant main effect for Time, F (1,113) = .13, $p > .05$ and for Group, F (1,113) = 2.37, $p > .05$.

Table 10. Intervention Effect on Child Outcomes in Control and Intervention Groups

	Intervention Group		Control Group			Pre vs. post paired *t* tests		Independent samples *t*-test
	Pre-test	Post-test	Pre-test	Post-test				
Variables	M (SD)	M (SD)	M (SD)	M (SD)	Group x Time F	Intervention Group	Control Group	
Social Competence								
Mother	3.06 (0.30)	3.09 (0.33)	3.11 (0.31)	3.14 (0.28)	0.06	-0.74	-.66	.95
Teacher	3.29 (0.40)	3.35 (0.35)	3.47 (0.29)	3.48 (0.26)	1.79	-1.92	-.37	2.46*
Anger-Aggression								
Mother and Teacher Aggregated	1.96 (0.53)	1.76 (0.52)	1.99 (0.45)	1.86 (0.49)	0.00	4.52**	2.69**	1.19
Anxiety-Withdrawal								
Mother	2.02 (0.62)	1.96 (0.62)	1.85 (0.47)	1.70 (0.50)	0.59	0.20	2.06	-2.50*
Teacher	1.69 (0.52)	1.54 (0.57)	1.43 (0.45)	1.43 (0.55)	0.01	2.54*	.06	-1.24
Emotional Comprehension								
TEC – Child	4.13 (1.78)	5.88 (1.46)	3.78 (1.71)	4.25 (1.61)	11.10**	-8.22**	-1.92	-6.10**
Problem Solving								
CST – Pro-social – Child	2.42 (1.72)	3.30 (1.97)	2.52 (2.16)	2.67 (1.86)	3.94*	-3.64**	-.45	-1.89
CST – Aggressive – Child	0.96 (1.53)	0.83 (1.29)	1.02 (1.53)	1.32 (1.72)	3.74	0.94	-1.25	1.86

Note. *$p < .05$. **$p < .01$ Social Competence = SCBE and PKBS Combined. AA = SCBE Anger-Aggression Aggregated (Mother and Teacher). AW = SCBE Anxiety- Withdrawal. TEC = Test of Emotion Comprehension. CST = Challenging Situations Task.

For teachers' ratings of anxiety-withdrawal scores, as indicated earlier due to statistically significant pre-test differences between control and intervention groups, the pre-test scores rated by mothers was used as a second covariate during the analysis. The findings indicated that there was no statistically significant Group by Time interaction effect, F (1,134) = .006, p =.601. Similarly, the main effect for Group was also not statistically significant, F (1, 134) = .01, $p > .05$. On the other hand, the main effect for Time was significant, F (1, 134) = 6.98, $p < .01$. The results suggested that the anxiety-withdrawal scores decreased from pre-test to post-test (see Table 10 for *t*-test results).

3.3.4 Child ratings of emotion comprehension (TEC) and problem solving (CST)

3.3.4.1 Emotion comprehension

The fourth hypothesis of this study was that children in the intervention group would improve their TEC scores more than the children in the control group at post-test. The hypothesized Time x Group interaction was significant for child ratings of emotion comprehension, F (1,124) = 11.10, $p < .01$ (see Figure 3). The results indicated that, children's TEC scores in the intervention group increased significantly, whereas the increase in the TEC scores of children in the control group was not significant (see Table 10). The main effect for Time was not significant, F (1,124) = .25, $p > .05$, but the main effect for Group was significant [F (1,124) = 8.50, $p < .01$] such that the intervention group obtained higher scores than control group (see Table 10 for *t*-test results).

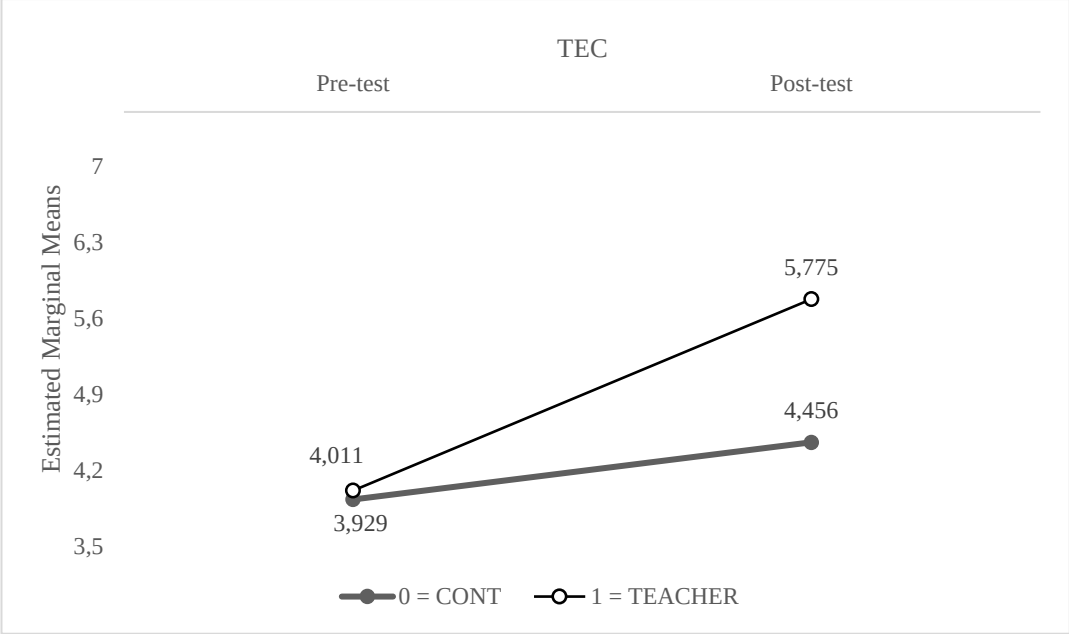


Fig. 3 Intervention effect for children's emotion comprehension

3.3.4.2 Social problem-solving skills

The last hypothesis of this study was that the children in the intervention group would improve their social problem-solving skills more than the children in the control group, based on the difference between pre- and post-test CST results. The results revealed a significant Time x Group interaction for the CST – Pro-social scores, F (1,126) = 3.94, $p < .05$. On the other hand, there was no significant main effect for time F (1,126) = .12, $p > .05$ and for group F (1,126) = .09, $p > .05$. The paired t test results indicated that CST- Pro-social scores of children in the intervention group increased significantly, whereas the increase in the mean scores of children in the control group was not statistically significant (see Figure 4).

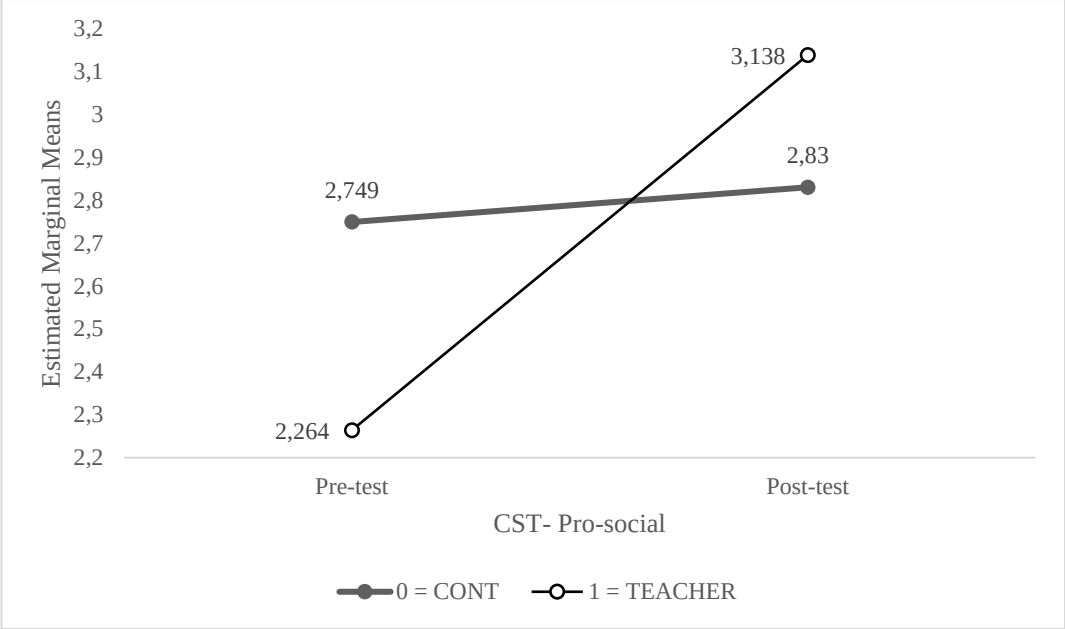


Fig. 4 Intervention effect for children's pro-social problem-solving attitudes

The intervention effect on CST-Aggressive scores of children were marginally significant, F (1,126) = 3.74, p = .055. There was no significant main effect for time F (1,126) = 1.21, p > .05 and for group F (1,126) = .15, p > .05. Children's CST-Aggressive scores in the control group increased, whereas CST-Aggressive scores in the intervention group have decreased between pre- and post-test assessments (see Figure 5).

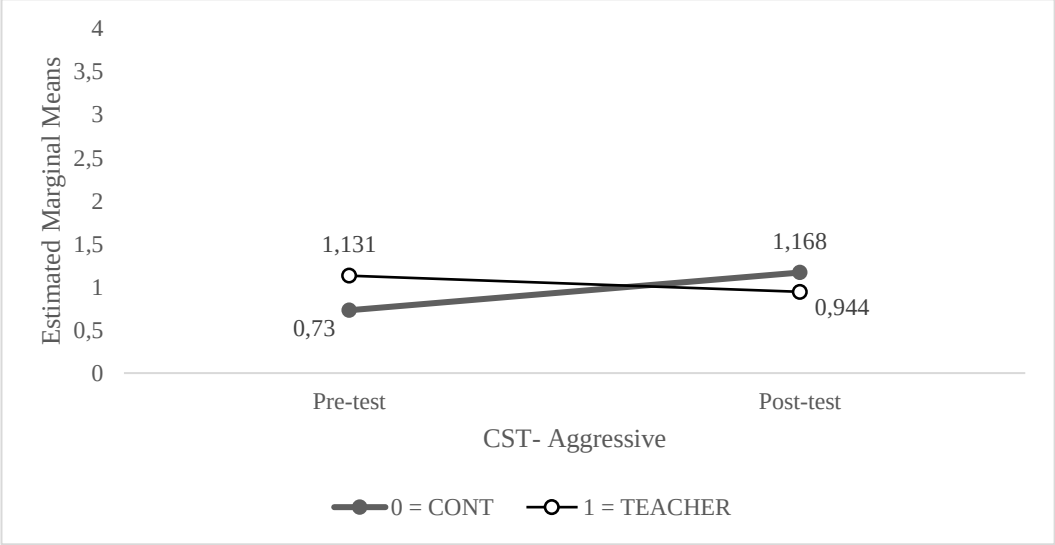


Fig. 5 Intervention effect for children's aggressive problem-solving attitudes

CHAPTER 4

DISCUSSION

The main purpose of this study was to implement and test the effectiveness of a teacher-led, universal, and evidence-based SEL program, namely the PSSSP, which aimed to improve emotional and social skills of preschoolers. The study was conducted in four kindergartens administered by Bakırköy Municipality in Istanbul. Children's social and emotional skills were assessed based on mother, teacher and child reports, before and after the program implementation in the intervention and control groups. In this chapter, findings of this study, its strengths and limitations as well as future research directions will be discussed.

4.1 Review of findings

For investigating the effectiveness of our intervention program, we used a randomized controlled trial. Although control and intervention groups were assigned randomly at the school level, baseline assessments in the pre-test evaluation indicated that there was a significant difference in children's age and family SES between the intervention and control groups. Specifically, children in the intervention group were older than control children, and their family SES level was lower than their counterparts. Hence, it is important to note that all analyses controlled for child age and SES. Additionally, baseline assessments of social competence and anxiety-withdrawal scores rated by teachers were significantly different between the intervention and control groups. Teachers rated social competence of control children significantly higher and their anxiety-withdrawal

sores significantly lower than intervention children. These differences were controlled by using mothers' ratings of the same scales.

On the other hand, no statistically significant differences were observed between the two groups at pre-test based on mother and child reported competences, namely social competence, anger-aggression and anxiety-withdrawal scores rated by mothers, and emotion comprehension and social problem-solving skills based on child reports. Teachers also reported similar levels of anger and aggression in both control and intervention classrooms.

4.1.1 Intervention effects based on child-rated social and emotional skills

SEL programs target children's knowledge, skills and competence to improve their behavioral attitudes and outcomes for achieving their goals in life (Weissberg et al., 2015). Hence, we have hypothesized that upon completion of the SEL program, children in the intervention group would improve their emotional and social problem-solving skills more than control children. Based on children's rating, intervention group children improved their emotion comprehension skills (as assessed with TEC) significantly more than control group children from pre- to post-test. In other words, as hypothesized, the 12-week program helped children increase their awareness about their own emotions, others' emotions, and different coping or social problem-solving strategies.

The results regarding social problem-solving skills (as assessed with CST) suggested that even when socially or physically provoked by a peer, there was more increase in intervention children's endorsement of pro-social responses from pre-to post-test compared to the control group children. Also, the number of aggressive

responses seemed to decline more in the intervention group compared to the control group. However, this decline was only marginally significant.

These findings have supported our hypotheses about the intervention's positive impact on preschoolers' socioemotional skills. Our results were also consistent with previous studies of school-based social and emotional programs, which documented that SEL programs had a positive effect on children's emotional knowledge and pro-social attitudes (e.g. Barnes, Smith, & Miller, 2014; Durlak et al., 2011; Walker, Chang, Vera-Hermandez & Grantham-McGregor, 2011). The original study also found significant effect on all dimensions of targeted skills based on teachers' ratings but revealed significant intervention effects on basic skills of children based on parent reports (Ömeroğlu et al., 2015). They did not assess children based on child-report scales and have not further checked their findings by using some reliable scales measuring social and emotional competencies (Ömeroğlu et al., 2015). In our study we assessed children individually on their emotional and social problem-solving skills in addition to mothers' and teachers' evaluations about their social and emotional competence by using some valid and reliable measures which are widely applied by SEL research community (Denham, Ji, & Hamre, 2010). The use of these scales contributed to the accumulating knowledge base about their cultural validity. The results of the current study have also suggested that these scales are susceptible to detect intervention effects, and as expected emotion comprehension skills of children were significantly and positively correlated with pro-social behavioral responses and teachers' reports of social competence at post-test. It is important to note that child ratings imply a change in children's knowledge about emotion comprehension and social problem solving, but not necessarily a real behavioral change.

4.1.2 Findings based on adult ratings of preschoolers' social skills

We hypothesized that children in the intervention group would improve their social competence scores as rated by their mothers' and teachers' more than the children in the control group between pre- and post-test. However, the results of this study revealed that parents and teachers have not observed a significant improvement in the social competence level of intervention children compared to control children. We also hypothesized that there would be a significant intervention effect such that anger-aggression as well as anxiety-withdrawal scores of intervention children as rated by mothers and teachers would decline more than control children. The results have not supported these hypotheses either.

In summary, although child-rated measures showed an intervention effect, adult-rated measures did not indicate statistically significant differences in social competence, externalizing and internalizing problems of children between the intervention and control groups across measurements at two time points. It can be speculated that the 12-week intervention program in the current study was effective for children to acquire the knowledge and positive attitudes about emotional and social problem-solving skills, but the teachers and parents have not observed the behavioral changes yet. Many studies found that evidence-based SEL programs are effective in improving children's social and emotional competence rated by parents and/or teachers, and the follow-up assessments show that intervention effects can be maintained over time (e.g. Horowitz & Gerber, 2006; Webster-Stratton, Reid, & Hammond, 2004). Follow-up assessments could not be carried in our study to evaluate whether the knowledge of social and emotional competence has translated into actual behaviors in the following months. It is possible that children need a time lag to practice the newly learned skills.

There might be a few other reasons as to why actual behavioral changes were not detected in the current study. First, unlike many intervention programs targeting at-risk populations (Dekovic et al., 2011; Kagitcibasi, Sunar, & Bekman, 2001; Webster-Stratton et al., 2001). As stated in McCelland, Tominey, Schmitt, & Duncan's (2017) review article, children from low-income families and with lower social skills benefit more from SEL interventions such as "Red-light, Purple-light" (Tominey & McClelland, 2011), REDI (Bierman et al., 2008; Bierman et al., 2014), and Incredible Years (Webster-Stratton & Herman, 2010; Webster-Stratton et al., 2008) programs. Our participants were not from highly disadvantaged families. The majority of parents had at least high school education, living above poverty line, and divorce rates were very low. Second, the baseline social skills and competence scores of children rated particularly by teachers were very close to ceiling points. Hence, there was not much room for observing an intervention effect. In the case of internalizing problems, children's baseline anxiety-withdrawal scores, as rated by mothers and particularly by teachers, were already very low for both groups. The aggregated anger-aggression scores of the children were also very low, and as there were only 22 children (8 from control group and 14 from intervention group) out of 146 participants, whose aggregate anger-aggression scores were one standard deviation higher than the mean, further analysis of intervention effect on high-risk children in our sample could not be carried out.

Third, previous studies and meta-analyses have revealed that the effect sizes are generally small to medium for SEL programs (e.g. Barnes, Wang, & Obrien, 2018; Durlak et. al., 2011). In our study, also effect sizes (partial eta squared) were below .01 for all measures. This suggest that the magnitude of the intervention effects in the present study was quite small. Our statistical analysis also revealed that

observed power values were very low for all these measures, except for Test of Emotion Comprehension. Hence our sample size (N = 146) might not be large enough to detect an intervention effect for behavioral outcomes of social and emotional skills. Therefore, future studies should consider conducting research with larger sample sizes. In fact, the effectiveness of the original study (Ömeroğlu et al., 2015) was tested with a much larger sample size, with 444 children in intervention group and 104 children in control group. Similarly, Webster-Stratton and her colleagues (2008) tested the effectiveness of Incredible Years Teacher Classroom Management and Child Social and Emotional curriculum (Dinosaur School) with 153 teachers and 1,768 children, and Bierman et al. (2008) tested effectiveness of Head Start REDI Program with 356 mothers and children in 44 classrooms. These studies also suggest that the detection of an intervention effect for behavioral change requires larger sample sizes.

Additionally, one might question whether the dosage of the intervention program was sufficient to create a behavior change among the preschoolers of the present study. The original PSSSP was a one-year intervention program with 78 activities targeting 13 skills in 4 domains, namely basic communication, academic, friendship and emotion regulation skills (Ömeroğlu et al., 2015). Our study used only nine activities from each domain and included a total of 36 activities. The duration of our program was also only for 12 weeks. Hence, the implementation period was shorter compared to the original program. A program that integrates more play activities into the regular classroom curriculum over the entire year may produce more effective behavior change among preschoolers (Jones & Dolittle, 2017). For instance, Webster-Stratton and her colleagues' study (2008) for testing effectiveness of Incredible Years Teacher Classroom Management and Child Social

and Emotional curriculum (Dinosaur School) in preventing conduct problems and promoting school readiness was implemented by teachers bi-weekly for one year. Additionally, Bierman et al. (2008), integrated one-year Head Start REDI program and PATHS curriculum, which had 33 short lessons delivered once a week during circle time. The lessons included also extension activities such as games and some projects that children completed by cooperating with each other (Bierman et al., 2008).

The duration of the teacher training and implementation quality are two other factors that might have compromised the program impact to produce immediate behavior change following the program. First of all, teachers' training program of the original study (Ömeroğlu et al., 2015) was a 40-hour program, which aimed firstly to increase awareness of teachers about their own levels of social and emotional competence, and provided the teachers with a guidebook about theory and developmental aspects of the intervention. The training also included focus group meetings, presentations, demonstrations, and encouraged the participant's active involvement by role-plays, brainstorming and question and answer sessions, problem-solving and discussion activities. Some sessions were also videotaped for the assessment of quality (Ömeroğlu et al., 2015). However, due to time constraints of the school system, our teacher intervention was for 15 hours in total. The researcher provided the teachers with the same guidebook of the original study, but due to time restraint, teachers did not have many opportunities to role-play the classroom implementation of the play activities. Yet, the researcher of the current study tried to enhance teachers' implementation skills during her in-class mentoring hours. Despite these shortcomings in our training sessions, teachers in the intervention group informally reported that they found the biweekly meetings useful

as they had the opportunity to discuss their own experiences and exchange ideas about implementing the activities.

Implementation quality in the original study were monitored by the research team for 12 activities (Ömeroğlu et al., 2015). In the present study, teachers were also provided with one-hour in-class mentoring on a weekly basis. Like the original study (Ömeroğlu et al., 2015), the researcher also supervised each teacher for at least 12 activities and helped teachers during implementation, as well as reminded them of some missing components in the activities when necessary. Teachers were also encouraged to acknowledge and appreciate positive behaviors of children not only in the classroom, but also in the cafeteria and during some outdoor activities. Additionally, the teachers were required to fill in weekly implementation forms reporting which activities were conducted on which day of the week (see Appendix S). For most intervention activities, teachers were also required to display some visual materials (like posters, emotion masks etc.) in the classrooms throughout the week in order to reinforce the program effect. The implementation fidelity forms indicated that all the teachers implemented 100% of the activities in the program. However, due to limited resources, the teachers could not be monitored during implementation of around 20 activities by the researcher for assessing the quality of implementation.

Furthermore, the 12-week intervention program in the present study coincided with some special days in Turkey (i.e. 2 national holidays, workers' day, mothers' day, end of the year show and fathers' day), when the teachers were required to do a lot of extra activities. These might have had a negative impact on implementation of the intervention program. Possibly, a more intensive teacher

supervision during the intervention program might have facilitated behavior change among preschoolers as well as among teachers for more effective skills teaching.

Finally, it is also worth mentioning that the researchers who developed the original PSSSP intervention program created their own evaluation forms called as "Preschool Social Skills Evaluation Scale (PSSES)" and have not used additional assessment tools to evaluate the program impact. Their findings were based on pre- and post-test assessments of children by teacher ratings with these forms. Only post-test evaluations could be obtained from mothers. Even though they found statistically significant improvements in social competence of children based on teacher ratings for all modules of the program, mother's ratings indicated a significant progress only for basic skills of children such as communication skills, greeting others, introducing self and others. There was no statistically significant difference in favor of the intervention group regarding the academic, friendship and emotion regulation skills (Ömeroğlu et al., 2015). So, it can be speculated that there might be a time lag between acquiring knowledge and using these social skills both in the school and home contexts.

4.1.3 Agreement between informants' ratings

In the current study, the agreement between different informants' ratings such as mothers' and teacher's ratings for SC and AW scales were limited. In fact, this finding is consistent with many studies conducted with children and adolescents that used rating scales with different informants (Dinnebeil et al., 2013; Gresham et al., 2010; Renk & Phares, 2004; Ruffalo & Elliott, 1997). Dinnebeil et al. (2013) investigated the level of congruence between teachers' and parents' ratings of the Social Skills Rating System, developed by Gresham & Elliott (1990) and concluded

that teachers' ratings are influenced by the behaviors of all other children in the classroom, whereas parents are more likely to rate their children without necessarily taking other children as a reference point.

Our results also showed that SC scores rated by teachers were significantly correlated with the pro-social responses provided by children, whereas such an agreement was not observed between child and mothers' ratings. Such differences might be due to the fact that teachers and mothers have different expectations from children, and these expectations might impact children's behavior at school and home settings (Kuklinski & Weinstein, 2001).

4.2 Strengths and limitations of the study

4.2.1 Strengths of the study

First of all, we have conducted a randomized controlled trial, and children were assessed by multiple measures with multiple informants, namely parents, teachers and the participating children. As multiple indicators of social competence were correlated, these indicators were aggregated to create more reliable measures, both for teachers and mother ratings of social competence. Furthermore, teacher and mother ratings of anger-aggression were significantly related at both time points. Again, to create a more robust measure of this behavioral outcome, we have combined the scores of both informants and used these composite scores in our analyses. However, behavioral outcomes of children could not be combined with measures from direct observations. Future studies should consider integrating assessments based on child observations.

Second, it was observed that conducting a universal intervention program in a preschool setting had some effects on the school system as a whole. An informal closing meeting was organized with the intervention group teachers at the end of post-test data collection. One contribution of the program, as teachers reported, was that the study helped them use some screening tools (such as SCBE and PKBS) to identify children at risk. Additionally, targeted social and emotional skills and their desired behavioral outcomes were well defined in the activities. Teachers endorsed that this information base as well as the guidance provided by the program and the mentor helped them become better observers of children. The study also encouraged teachers, parents and administration to cooperate and communicate more with each other. The teachers in the intervention group had also taken some initiatives to help some children, who were struggling with social and behavioral problems. For instance, after consulting with the school psychologist, families and school administration, two children were referred to psychiatrists and were diagnosed with attention deficit disorder and attention deficit and hyperactivity disorder, and one child was moved to another classroom which was more appropriate for his age and skills.

At the program implementation level, the program has integrated more SEL activities into the classroom curriculum and increased teachers' skills for teaching social and emotional skills. Thus, one can speculate that teachers can potentially use these skills in the future. In that sense, classroom based, teacher-led programs can be considered as cost-effective ways of helping preschool children develop social and emotional competence (Barrett & Turner, 2001; Webster-Stratton et al., 2001).

Our intervention included weekly newsletters sent to families in order to inform parents about the topics that were discussed in the classrooms. The

newsletters were also suggesting some activities for the whole family to practice the skills at home. The teachers reported that these newsletters were useful tools to increase school and parent contact. However, the impact of the limited family component of this program could not be separately analyzed. Future research could be designed to investigate the contribution of teacher and family components of intervention programs separately and combined.

4.2.2 Limitations of the study

There were many limitations to this study. The first limitation is about the generalizability of the findings. Our sample was drawn from a relatively affluent and well-educated municipality of Istanbul. Furthermore, over 85% of parents in the intervention group and 90% parents in the control group had high school education or more. More than 90% of the children were living with their biological parents. So, it can be argued that the study was conducted in a low-risk area, and the results cannot be generalized to more disadvantaged school contexts.

Another important limitation has to do with the nonequivalence of intervention and control groups in terms of some demographic and child outcome variables. First of all, more children in the intervention group were coming from lower-income families compared to the control group. Additionally, despite the fact that children in the intervention group were older than the children in the control group, their mean score of social competence rated by teachers were significantly lower and anxiety-withdrawal scores were significantly higher.

A third limitation of the study was that we could not conduct follow-up assessments due to time restraints. The results of the study indicated that the intervention was effective in teaching children some emotional and social problem-

solving skills based on child reports. However, as parents' and teachers' ratings did not reveal actual behavior change due to the intervention, it is possible that children need more time and practice to put into practice what they have learned. Additionally, these skills should be performed consistently so that parents and teachers could be able to observe them long enough to change their baseline assessments. Future studies with 1-month, 3-month, and 6-month follow-up also using additional assessment tools such as the "PKBS-II Problem Behaviors Subscale" (Merrell, 2003) and methods such as free play observations (Howes, 1987) can be more successful at tracking the intervention effects.

Furthermore, despite the multi-informant nature of assessment (mother, teacher, and child self-report), behavioral outcomes of children could not be assessed by direct observations. Future studies should consider assessments based on child observations to have a better assessment of the intervention program impact. It is also strongly recommended that these observations should include free play observations as social and emotional skills of children are best displayed during social play (Howes, 1987).

Additionally, the teachers in the experimental group were required to attend the biweekly meetings after school hours, but they were not paid for these extra hours. This might have potentially negatively affected the teachers' satisfaction with the program, as they had to do extra work compared to the control group teachers but were not materially rewarded for it. The original study conducted the trainings on usual working days, so the participating teachers were in fact paid for the training hours (Ömeroğlu et al., 2015). Some other studies also compensated the teachers [e.g., Bierman et al. (2008) paid teachers $20 for providing information about themselves and $7 per child they assessed].

4.3 Conclusions

The aim of this study was to test the impact of a universal teacher-led intervention program developed in Turkey. The Results of our study suggested that the 12-week implementation of the PSSSP program helped children enhance their understanding of emotions and emotional contexts and increased their propensity to prefer more pro-social interpersonal problem-solving responses, even under emotionally challenging situations. However, the impact of the program on children's social and emotional competence remained below levels of statistical significance, as far as the parents' and teachers' observations are concerned. To obtain benefits in behavior change, universal preventive SEL programs for young children seem to require a higher implementation dose.

APPENDIX A

A SAMPLE ACTIVITY

Age Group: 36- 48 months/ 48-60 months / 60+ months

Activity field: Drama

Concepts: Near, close, slow, fast

Activity name: Let's get to know each other!

Materials: CD player and CDs with rhythmic music

Learning outcomes: Introducing friends/family with to others

Indicators: The child can tell the name of the person and how s/he is related to the child

Learning process:

Preparing the learning environment: The teacher puts the tables and chairs away so that there is a place that children can move comfortably. Prepares the CD and the CD player.

- The teacher says: "Let's line up" and draws the attention of children. Then s/he turns on the music and tells children how to move: "Come on kids, let's start walking now! Now walk fast! Faster! Now slow down! Now walk on your toes! Now walk like a robot! Oh, it's raining now. It's raining faster and faster! Let's find a place to hide and wait there for a while! The rain slows down, the sun is up. Now let's dance on your own. Now let's find a friend and dance together. Now let's greet your partner with your head, bow. Wave hands. Now greet your partner with your legs. Now greet your partner with your tummies. Now let's dance with your partner. Let's walk hand in hand with your partner. Let's stop when the music stops.
- When the music stops, all children stand next to their partners. The teacher asks each couple to come forward one by turns. The teacher says:
- Now I'd like you to introduce yourself and your friend like "Hello, my name is Ali, and this is my friend Ayşe". Then you will tell your friends which part of this activity was your favorite.
- All couples complete this task. Then teacher asks evaluation questions like: "Kids, what did we do when we talked to each other? How did you introduce your friend? Which part of this activity you liked the most?"
- The teacher asks children where and how people can meet and introduce themselves. Ask children to give some examples and some clues if needed, such as "Let's say you went to the playground and another child is going down the slide with you. What would you say? How would you behave?"
- The children might like to enact the examples. They are encouraged to try alternative ways of meeting new people and discuss what would work, whether they would they like it or not. For instance: "Ayşe/Ali quietly continued to go down the slide. What else s/he could have done?" The expected response would be "S/he could have said: "Hello, my name is Ayşe/Ali. What is your name?" and children could be asked to enact this. Then, it can be assumed that a third child approaches and children can practice a new introduction.

Depending on the children's interest in the activity, they can continue with the games they liked.

Reflecting on the activity:

- Which part of the activity you liked the most? Why?
- If you played this game again, what would you like to add? Why?
- Question 1: If your mother or brother visits you here, how would you introduce them to your friends?

Answer: "Friends, this is my mother Nilgün, and this is my brother Berk."

- Question 2: If you visit your brother or sister at school. How would your brother or sister introduce you to their friends?

"Look, this is my sister Bengü. Bengü, these are my friends Ayşe and Ali.

- Question 3: Think about what we have learned today. Can you tell us about a time that you met someone new and how you introduced yourself? (The child replies accordingly).
- Question 4: Eray and Melike goes out when it's snowing to make a snowman. Then the new neighbors' son Emrah comes and tells them that he would like to help. Eray and Emre have met before, but Emrah didn't know Melike. What do you think Eray should do?
- Answer: To introduce them with each other, Eray could turn to Melike and say: "This friend has recently moved into our building. His name is Emrah. Emrah, this is Melike. She lives in the building next to ours.

APPENDIX B

A SAMPLE ACTIVITY (TURKISH)

Yaş Grubu: 36- 48 ay/48-60 ay/60 ay ve üzeri
Etkinlik Alanı: Dramatik Etkinlik
Kavramlar: Yakın, Yavaş, Hızlı
Etkinlik Adı: Tanışalım
Materyaller: Müzik çalar, ritmik müzik CD veya kasetleri
Kazanım: Tanıdığı kişileri başkalarına tanıtabilme

Göstergeler: 5.1. Tanıtacağı kişinin adını söyler.

5.2. Tanıtacağı kişinin kendisine yakınlık derecesini söyler.

Öğrenme Süreci:

Eğitim Ortamının Hazırlanması: Eğitimci, masa ve sandalyeleri kenara çekerek sınıfı çocukların rahatça hareket edebilecekleri şekilde düzenler. Müzik çaları ve kullanacağı ritmik müzikleri önceden hazırlar.

Eğitimci, "Sıra olalım, sıra olalım, arka arkaya sıra olalım" diyerek çocukların dikkatini çeker ve tek sıra olmalarını sağlar.

- Çocuklar tek sıra olduktan sonra müziği açar ve müzik eşliğinde nasıl hareket edeceklerini söyleyeceğini belirtir. "Çocuklar şimdi yürüyelim! Şimdi hızlı yürüyelim! Şimdi daha hızlı yürüyelim! Şimdi hızımızı azaltalım! Şimdi parmak uçlarımızda yürüyelim! Şimdi bir robot gibi yürüyelim! Aaaa yağmur başladı! Yağmur hızlanıyor! Giderek hızı artıyor, ıslanmamak için bir yer bulup biraz bekleyelim. Yağmur yavaşladı, güneş açtı. Şimdi tek başımıza dans edelim. Bir arkadaşımızla eş olup birlikte dans edelim. Eşimize başımızla selam verelim. Eşimize elimizle selam verelim. Eşimize ayaklarımızla selam verelim. Eşimize göbeğimizle selam verelim. Şimdi eşimizle yeniden dans edelim. Eşimizin elinden tutup yürüyelim. Müzik sustuğunda duralım." yönergelerini kullanır.
- Müzik sustuğunda, tüm çocuklar ikili eşler halinde dururlar. Eğitimci, eşlerin sırayla yanına gelmesini ister. Çocuklar ikişerli eş olarak eğitimcinin yanına geldiklerinde "Merhaba, benim adım Ali, bu da arkadaşım Ayşe" diyerek sınıftaki diğer arkadaşlarınıza birbirinizi tanıtmanızı istiyorum. İsimlerinizi söyleyip kendinizi ve arkadaşınızı tanıttıktan sonra, yaptığımız çalışmada en çok hangi bölümü sevdiğinizi söyleyeceksiniz" der. • Tüm gruplarla bu çalışma yapılır. Daha sonra "Çocuklar birbirimizle konuşurken ne yaptık? Arkadaşınızı nasıl tanıttınız? Bu etkinlikte en çok ne yapmaktan hoşlandınız?" gibi sorular sorularak çalışma ile ilgili değerlendirme yapılır.
- Daha sonra, çocuklara insanların birbirleriyle başka nerelerde ve nasıl karşılaşıp, tanışabileceği sorulur. Çocuklardan örnekler vermeleri istenebilir. İpuçları verilerek farklı öneriler sunmalarına rehberlik edilir. Örneğin, "Parka oynamaya gittiğinizde sizinle birlikte kaydırakta kayan birini gördünüz. Ne söylersiniz, nasıl davranırsınız?" gibi.
- Çocuklardan verilen örnekleri canlandırmaları istenebilir. Çocuklardan alternatif tanışma yollarını denemeleri ve bunun işe yarayıp yaramadığını, bunu beğenip beğenmediklerini söylemeleri istenir. Gösterilen tanışma şeklinde doğru ve

yanlış olan yanların neler olduğu tartışılabilir. Örneğin, “Ali/ Ayşe sessizce kaydırakta kaymaya devam etti, sizce ne yapabilirdi?” diye sorularak çocukların görüşü alınabilir. Ali/Ayşe kaydırakta onunla birlikte kayan çocuğun yanına gidip “Merhaba, benim adım Ali/Ayşe, senin adın ne?” diye sorması gerektiği söylenerek çocuklardan bu durumu canlandırmaları istenebilir. Daha sonra, yanlarına gelen üçüncü bir kişiyle nasıl tanışabileceklerine ilişkin uygulama yapılabilir.

- Etkinliğin devamında çocukların ilgilerine göre, önceden oynanan ve beğenilen başka oyunlar oynanabilir.

Çocuğun Kendini Yansıtması:

- Oyunun en çok hangi bölümünü beğendin? Neden?
- Bu oyunu yeniden oynarsan bir şey eklemek ister miydin? Neden?

- 1. Soru: Sınıfınıza sizi ziyaret etmek için anneniz ve kardeşiniz geldiğinde, arkadaşlarınıza onları nasıl tanıtırsınız?
- Örnek doğru yanıt: Arkadaşlar annem Nilgün ve kardeşim Berk geldi.
- 2. Soru: Abla veya abinizin okuluna gittiniz. Abla veya abiniz sizi arkadaşlarına nasıl tanıtır?
- Örnek doğru yanıt: Bakın arkadaşlar bu benim kardeşim Bengü. Bengü bunlar da benim arkadaşlarım Ayşe ve Ali.
- 3. Soru: Bugünkü öğrendiklerimizi düşünün. Daha önceden yaşamış olduğunuz bir tanıştırma olayını bize anlatır mısınız?
- Örnek doğru yanıt: Çocukların soruya yönelik cevap vermeleri beklenir.
- 4. Soru: Eray ve Melike kar yağarken dışarı çıkıp kardan adam yapmaya başladılar. Apartmanlarına yeni taşınan komşularının oğlu Emrah da onların yanına geldi ve kardan adam yaparken yardım etmek istediğini söyledi. Eray ve Emrah daha önce tanışmışlardı fakat Melike’yi tanımıyordu. Sizce Eray ne yapmalı?
- Örnek doğru yanıt: Eray, Melike’ye “Bu arkadaşımız bizim apartmanımıza yeni taşındı. Adı Emrah. Emrah bu da Melike, o da yan apartmanda oturuyor” şeklinde onları tanıştırmalı.

APPENDIX C

CONSENT FORM – INTERVENTION GROUP

PARTICIPANT CONSENT FORM

Institution that support the research: Boğaziçi University, Psychology Dept.
Research title: Social and Emotional Learning in Preschool Context:
A Teacher-led Intervention Program
Project Implementer: Doç.Dr. Feyza Çorapçı
Address: Boğaziçi University, Psychology Dept. 34342 Bebek-İstanbul
E-mail:xx
Tel: 05…
Name of the Researcher: Özlem Küçüközdemir
E-mail: xx
Tel: 05…

Dear Parents,

Preschool years are critical for children's physical, social, emotional and cognitive development. Social and emotional skills acquired during this period help children establish positive relationships with adults and peers and express their emotions in a socially acceptable way. These skills are initially learned in the family context, however early education institutions play a significant role in promoting them. Hence, as Boğaziçi University Psychology Department we would like to implement a social and emotional learning program in Bakırköy Preschools.
The aim of this program, is to teach 4 to 6-year-old children some social skills such as helping, sharing, problem-solving, recognizing and expressing emotions.

The program will be implemented for 12 weeks between February-April 2017. During the implementation, trained graduate psychology students will coach preschool teachers once a week while they teach a social skill to children at circle time by using puppets and games that children would enjoy. The preschool teachers will encourage children to use the targeted skill in their social interactions and free play times throughout the week.

We are planning to test the effectiveness of this program before and after the implementation, in December 2016-January 2017 and May-June 2017, respectively and evaluate the development in children's problem-solving and friendship skills. We kindly invite you and your child to participate our research and help us assess the effectiveness of this program. If you have consent to participate, students from our research team will assess your child's emotion recognition and problem-solving skills with game-like activities (i.e. by showing pictures, telling stories). Additionally, we will ask parents and teachers to fill in some inventories about social competence of children. While collecting the data, your child's privacy is a priority for us. You would also have the right to waive your consent at any time during the implementation without reporting any excuse.

This research is conducted for scientific reasons and privacy of the participant information is our main principle. The data can be accessed only by the researchers. During the analysis participant names and data will not be matched, and the results will be reported only cumulatively, not individually.

This study is approved by the ethics committee of our university and no risks are anticipated for participating this research. Should you have any questions with regards to the research project, please do not hesitate to contact Assoc. Prof. Feyza Çorapçı. We herewith provide you with a copy of this consent form.

Based on the information above, should you accept to participate our study, we kindly ask you to sign this form and deliver to your preschool teacher. Please also inform us about any changes in your address or contact details.

THIS COPY IS SENT FOR SIGNING AND RETURNING BACK TO THE TEACHER TOGETHER WITH THE INVENTORIES

I have read and understood the information above. I would like to / wouldn't like to receive a copy of this form.

I have consent for my child _____ to participate this study.

Yes ☐ No ☐

Parents' names: _____

Signature: _____

Date (Day/Month/Year): _____/_____/_____

THIS COPY IS PROVIDED FOR YOU TO MAINTAIN OUR CONTACT DETAILS

APPENDIX D

CONSENT FORM – INTERVENTION GROUP (TURKISH)

Araştırmayı destekleyen kurum: Boğaziçi Üniversitesi, Psikoloji Bölümü
Araştırmanın adı: Anaokullarında Sosyal ve Duygusal Öğrenme: Öğretmenlere Yönelik Bir Eğitim Programı
Proje Yürütücüsü/Araştırmacının adı: Doç. Dr. Feyza Çorapçı
Adres: Boğaziçi Üniversitesi, Psikoloji Bölümü, 34342 Bebek-İstanbul
E-posta:
Telefon: 05XX
Araştırmacının adı: Özlem Küçüközdemir
E-posta:
Telefonu: 05XX

….12.2016

Sayın Veli,
Okul öncesi dönem çocukların fiziksel, sosyal, duygusal ve bilişsel açıdan sağlıklı gelişebilmeleri için kritik öneme sahiptir. Bu dönemde edinilen sosyal ve duygusal beceriler, çocukların yetişkinler ve akranlarıyla olumlu sosyal ilişkiler kurabilmelerini ve duygularını ortamın koşullarına uygun şekilde ifade edebilmelerini destekler. Temeli aile ortamında atılan bu becerilerin geliştirilmesinde okul öncesi eğitim kurumlarının önemi büyüktür.

Bu nedenle, Boğaziçi Üniversitesi Psikoloji Bölümü olarak Bakırköy Belediyesine bağlı anaokullarında bir sosyal ve duygusal beceri programını uygulamak istiyoruz. Bu programın amacı, 4-6 yaş arası çocuklara yardımlaşma, paylaşma, sosyal problemleri çözme, duyguları tanıma ve uygun şekilde ifade etme gibi sosyal ve duygusal beceri edindirmektir.

Program, Şubat-Mayıs 2017 tarihleri arasında 12 hafta boyunca sürecektir. Uygulama sırasında Boğaziçi Üniversitesi psikoloji öğrencileri tarafından anasınıfı öğretmenlerine haftada bir koçluk verilecek ve öğretmenler de çember saatinde çocuklara çeşitli oyun ve etkinliklerle hedeflenen sosyal beceri eğitimini vereceklerdir. Ayrıca öğretmenler hafta boyunca serbest oyun zamanlarında ve diğer etkinliklerde çocukları bu becerileri uygulamaya teşvik edeceklerdir.

Çalışmamızın etkililiğini araştırmak için program uygulamasının öncesinde ve sonrasında, Aralık 2016-Ocak 2017 ve Mayıs-Haziran 2017 arası çocukların sosyal problem çözme yetenekleri ve arkadaşlık becerilerindeki gelişimi değerlendireceğiz. Sizi de çalışmamıza katılmaya ve değerlendirmelerinizle bize destek vermeye davet ediyoruz. Onay verdiğiniz takdirde, bu değerlendirmelerde çocuğunuzla kreşte bireysel olarak oyun niteliğinde faaliyetler yaparak (örneğin resimlere bakma, hikaye dinleme) çocuğunuzun duyguları tanıma, paylaşma, yardımlaşma,

anlaşmazlık yaşanan durumlarda problem çözme gibi sosyal becerileri gelişimini değerlendireceğiz. Ayrıca veliler ve öğretmenlerden çocukların sosyal becerilerine ilişkin 30 kısa madde içeren bir anket doldurmalarını rica edeceğiz.

Bu araştırma bilimsel bir amaçla yapılmaktadır ve katılımcı bilgilerinin gizliliği esas tutulmaktadır. Katılımcılardan toplanan veriler sadece araştırmacılar tarafından görülebilecek, katılımcıların isimleri kendilerinden alınan verilerle eşleştirilmeyecek ve toplanan veriler bireysel olarak değil, toplu olarak değerlendirilip yayınlanacaktır. Katıldığınız takdirde çalışmanın herhangi bir aşamasında herhangi bir sebep göstermeden onayınızı çekmek hakkına da sahipsiniz. Bu durumda yapılan değerlendirme sonuçları imha edilecektir.

Yapmak istediğimiz araştırmanın size risk getirmesi beklenmemektedir. Yapılacak değerlendirmeler ışığında, çocukların sene içerisinde hangi sosyal becerileri edindiklerini ve hangi becerileri edinmede güçlük yaşadıklarını belirleyebileceğiz.

Bu çalışma Boğaziçi Üniversitesi etik kurulu tarafından onaylanmıştır. Araştırma projesi hakkında ek bilgi almak ya da araştırmayla ilgili sorularınızı yöneltmek istediğiniz takdirde lütfen yukarıda iletişim bilgileri yazılı olan Boğaziçi Üniversitesi öğretim üyesi Doç. Dr. Feyza Çorapçı ile temasa geçiniz. Elinizde bulunması için bu onam formunun bir kopyası size verilecektir.
Yukarıda verdiğimiz bilgiler ışığında bize yardımcı olmayı ve bu projeye katılmayı kabul ediyorsanız, bu formu imzalayıp çocuğunuzun sınıf öğretmenine geri yollamanızı rica ediyoruz.

Adres ve telefon numaranız değişirse, bize haber vermenizi rica ederiz.

Saygılarımızla,

BU KOPYA, İMZALANARAK ANKETLE BİRLİKTE

ÖĞRETMENE ULAŞTIRMAK ÜZERE YOLLANMIŞTIR

Bana anlatılanları ve yukarıda yazılanları anladım. Bu formun bir örneğini aldım / almak istemiyorum (bu durumda araştırmacı bu kopyayı saklar).

Çocuğum _____ 'in bu araştırma projesine katılmasına

onay veriyorum ☐ **onay vermiyorum** ☐

Velinin Adı: _____

Velinin İmzası: _____

Tarih (gün/ay/yıl): _____/_____/_____

APPENDIX E

CONSENT FORM – CONTROL GROUP

PARTICIPANT CONSENT FORM

Institution that support the research: Boğaziçi University, Psychology Dept.
Research title: Social and Emotional Learning in Preschool Context:
A Teacher-led Intervention Program
Project Implementer: Doç.Dr. Feyza Çorapçı
Address: Boğaziçi University, Psychology Dept. 34342 Bebek-İstanbul
E-mail: xxx
Tel: 05…
Name of the Researcher: Özlem Küçüközdemir
E-mail: xxx
Tel: 05…

Dear Parents,

Preschool years are critical for children's physical, social, emotional and cognitive development. Social and emotional skills acquired during this period help children establish positive relationships with adults and peers and express their emotions in a socially acceptable way. These skills are initially learned in the family context, however early education institutions play a significant role in promoting them.

In order to evaluate the development of children's social skills and peer relationships, we are planning to conduct tests in December 2016-January 2017 and in May-June 2017. If you have consent to participate, students from our research team will assess your child's emotion recognition and problem-solving skills with game-like activities (i.e. by showing pictures, telling stories). Additionally, we will ask parents and teachers to fill in some inventories about social competence of children. While collecting the data, your child's privacy is a priority for us. You would also have the right to waive your consent at any time during the implementation without reporting any excuse.

This research is conducted for scientific reasons and privacy of the participant information is our main principle. The data can be accessed only by the researchers. During the analysis participant names and data will not be matched, and the results will be reported only cumulatively, not individually.

This study is approved by the ethics committee of our university and no risks are anticipated for participating this research. Should you have any questions with regards to the research project, please do not hesitate to contact Assoc. Prof. Feyza Çorapçı. We herewith provide you with a copy of this consent form.

Based on the information above, should you accept to participate our study, we kindly ask you to sign this form and deliver to your preschool teacher. Please also inform us about any changes in your address or contact details.

THIS COPY IS SENT FOR SIGNING AND RETURNING BACK TO THE TEACHER TOGETHER WITH THE INVENTORIES

I have read and understood the information above. I would like to / wouldn't like to receive a copy of this form.

I have consent for my child _____ to participate this study.

Yes ☐ No ☐

Parents' names: _____

Signature: _____

Date (Day/Month/Year): _____/_____/_____

THIS COPY IS PROVIDED FOR YOU TO MAINTAIN OUR CONTACT DETAILS

APPENDIX F

CONSENT FORM – CONTROL GROUP (TURKISH)

Araştırmayı destekleyen kurum: Boğaziçi Üniversitesi, Psikoloji Bölümü
Araştırmanın adı: Anaokullarında Sosyal ve Duygusal Öğrenme: Öğretmenlere Yönelik Bir Eğitim Programı
Proje Yürütücüsü/Araştırmacının adı: Doç.Dr. Feyza Çorapçı
Adres: Boğaziçi Üniversitesi, Psikoloji Bölümü, 34342 Bebek-İstanbul
E-posta:
Telefon: 05XX
Araştırmacının adı: Özlem Küçüközdemir
E-posta:
Telefonu: 05XX

….12.2016

Sayın Veli,
Okul öncesi dönem çocukların fiziksel, sosyal, duygusal ve bilişsel açıdan sağlıklı gelişebilmeleri için kritik öneme sahiptir. Bu dönemde edinilen sosyal ve duygusal beceriler, çocukların yetişkinler ve akranlarıyla olumlu sosyal ilişkiler kurabilmelerini ve duygularını ortamın koşullarına uygun şekilde ifade edebilmelerini destekler. Temeli aile ortamında atılan bu becerilerin geliştirilmesinde okul öncesi eğitim kurumlarının önemi büyüktür.

Çocukların sosyal becerilerinin ve akran ilişkilerinin zaman içinde ne kadar geliştiğini belirlemek amacı ile hem 15 Aralık 2016 -30 Ocak 2017 döneminde hem de Mayıs-Haziran 2017 döneminde birer değerlendirme yapmayı planlıyoruz.

Onay verdiğiniz takdirde, bu değerlendirmelerde çocuğunuzla kreşte bireysel olarak oyun niteliğinde faaliyetler yaparak (örneğin resimlere bakma, hikaye dinleme) çocuğunuzun duyguları tanıma, paylaşma, yardımlaşma, anlaşmazlık yaşanan durumlarda problem çözme gibi sosyal becerileri gelişimini değerlendireceğiz. Ayrıca, sınıflarda serbest oyun saatleri sırasında gözlem yaparak çocukların akranlarıyla ne sıklıkta ve nasıl oynadıklarını belirleyeceğiz. Son olarak, veliler ve öğretmenlerden çocukların sosyal becerilerine ilişkin 30 kısa madde içeren bir anket doldurmalarını rica edeceğiz.

Bu araştırma bilimsel bir amaçla yapılmaktadır ve katılımcı bilgilerinin gizliliği esas tutulmaktadır. Katılımcılardan toplanan veriler sadece araştırmacılar tarafından görülebilecek, katılımcıların isimleri kendilerinden alınan verilerle eşleştirilmeyecek ve toplanan veriler bireysel olarak değil, toplu olarak değerlendirilip yayınlanacaktır. Katıldığınız takdirde çalışmanın herhangi bir aşamasında herhangi bir sebep göstermeden onayınızı çekmek hakkına da sahipsiniz. Bu durumda yapılan değerlendirme sonuçları imha edilecektir.

Yapmak istediğimiz araştırmanın size risk getirmesi beklenmemektedir. Yapılacak değerlendirmeler ışığında, çocukların sene içerisinde hangi sosyal becerileri edindiklerini ve hangi becerileri edinmede güçlük yaşadıklarını belirleyebileceğiz. Bu çalışma Boğaziçi Üniversitesi etik kurulu tarafından onaylanmıştır. Araştırma projesi hakkında ek bilgi almak ya da araştırmayla ilgili sorularınızı yöneltmek istediğiniz takdirde lütfen yukarıda iletişim bilgileri yazılı olan Boğaziçi Üniversitesi öğretim üyesi Doç. Dr. Feyza Çorapçı ile temasa geçiniz. Elinizde bulunması için bu onam formunun bir kopyası size verilecektir.

Yukarıda verdiğimiz bilgiler ışığında bize yardımcı olmayı ve bu projeye katılmayı kabul ediyorsanız, bu formu imzalayıp çocuğunuzun sınıf öğretmenine geri yollamanızı rica ediyoruz.

Adres ve telefon numaranız değişirse, bize haber vermenizi rica ederiz.

Saygılarımızla,

BU KOPYA, İMZALANARAK ANKETLE BİRLİKTE

ÖĞRETMENE ULAŞTIRMAK ÜZERE YOLLANMIŞTIR

Bana anlatılanları ve yukarıda yazılanları anladım. Bu formun bir örneğini aldım / almak istemiyorum (bu durumda araştırmacı bu kopyayı saklar).

Çocuğum _____ 'in bu araştırma projesine katılmasına

onay veriyorum ☐ **onay vermiyorum** ☐

Velinin Adı: _____

Velinin İmzası: _____

Tarih (gün/ay/yıl): _____/_____/_____

APPENDIX G

DEMOGRAPHIC FORM

CHILD AND FAMILY INFORMATION FORM

Questionnaire Date: Day_____ Month_____ Year_____

Your Child's:

1. Name Surname: _____

2. Birth Date: Day____ Month_____ Year_____

3. Sex: Boy____ Girl____

4. Preschool/childcare center entry date: Month_____ Year_____

5. Name of the current preschool/childcare center: _____

6. How many siblings s/he has? _____

7. Please order all individuals who **always** live at home with the child:

Name	Relationship to the child (brother, grandmother etc.)	Age

Questions about child's parents

	Mother	**Father**
Birth Date	___/___/_____ Day Month Year	___/___/_____ Day Month Year
Job		
Employment Status	1. Unemployed ☐ 2. Full-time (40 hours a week) ☐ 3. Part-time (less than 40 hours a week) ☐	1. Unemployed ☐ 2. Full-Time (40 hours a week) ☐ 3. Part-time (less than 40 hours a week) ☐
Marital Status	1. Married ☐ 2. Single, Divorced ☐ 3. Remarried ☐ 4. Widow ☐	1. Married ☐ 2. Single, Divorced ☐ 3. Remarried ☐ 4. Widow ☐
Education	**(Please circle the number of appropriate option)** 1. Primary school drop out 2. Primary school graduate 3. Middle school drop out 4. Middle school graduate 5. High school drop out 6. High school graduate 7. College graduate 8. University drop out 9. University graduate 10. Postgraduate degree	**(Please circle the number of appropriate option)** 1. Primary school drop out 2. Primary school graduate 3. Middle school drop out 4. Middle school graduate 5. High school drop out 6. High school graduate 7. College graduate 8. University drop out 9. University graduate 10. Postgraduate degree
Household Income (per month)	1. Less than 1.000 TL ☐ 2. 1.000 - 3.000 TL ☐ 3. 3.001 - 5000 TL ☐ 4. 5.001 - 7.000 TL ☐ 5. 7.001 - 10.000 TL ☐ 6. More than 10.000 TL ☐	

APPENDIX H

TEACHER INFORMATION FORM

Preschool name: _____

Teacher name: _____

Questionnaire Date: Day_____ Month_____ Year_____

Which age group do you teach now? _____
(Please indicate the age group as months)
Your class:
□ Full day
□ Half day

How many children are there in your class? _____
- Number of girls:
- Number of boys:

Is there any child with a special education need?
□ Yes (If yes, the number of children with special education need): _____
□ No

Is there any child with a behavior problem (hyperactive, defiant, aggressive etc.) in your class?
□ Yes
□ No

How many adults are there in your classroom during the activities in a day?
-Total number of teachers _____
-Total number of assistant/trainee teacher _____
-How many days in a week do assistant/trainee teachers participate in classroom activities? _____
Education level:
□ High school graduate
□ Vocational high school graduate (Your major: _____)
□ University graduate (Your major: _____)
□ Other: _____

For how many years have you been working as a teacher except for internships? ___

APPENDIX I

THE PROPOSED PROGRAM

I. Basic Social Skills

Week 1- Communication Skills	- Greetings, initiating a conversation - Introducing self and others - Saying good-bye before leaving
Week 2- Communication Skills	- Taking turns when speaking - Asking for permission when necessary - Adjusting loudness level - Listening
Week 3 – Thanking and apologizing	- Saying thank you - Understanding own mistakes and apologizing
Week 4- Sharing and Helping Others	- Sharing own and others' possessions - Asking for help and offering help - Cooperating with others
	II. Emotional Skills
Week 5 – Recognizing and expressing emotions	- Recognizing own and others' emotions - Expressing own emotions appropriately
Week 6 – Coping with difficult emotions	- Coping with frustration when own requests are declined - Coping with teasing or other difficult situations
Week 7 – Emotion Regulation	- Keeping calm when excited or concerned - Thinking of consequences before responding to a situation
Week 8 - Controlling emotion triggered behaviors	- Delay of gratification - Saying no and accepting no as an answer

	III. Social Problem=Solving Skills
Week 9 –Flexibility in problem solving	- Defining the problem, asking questions when necessary and thinking about alternative solutions - Trying different solutions and implementing what works the best
Week 10 – Protecting rights	- Protecting own and others' rights - Explaining the reasons why something is fare or not fare - Warning the others appropriately
Week 11 – Self assessment	- Appreciating self-performance and understanding areas for improvement - Listening to positive and negative feedback
Week 12 – Assessing friends	- Appreciating friends - Considering others' feelings when giving negative feedback

APPENDIX J

SAMPLE LETTER TO FAMILIES

Dear Parents,

As you are very well aware, as researchers from Boğaziçi University Psychology Department we will start implementing a social skills development program for preschoolers in your child's class. The main purpose of this program is to help 4-6 years old children develop social skills such as greeting, meeting new people, making friends, helping, sharing, interpersonal problem-solving, and recognizing emotions and expressing them in socially acceptable ways. We would like to inform you about some activities that we planned for this week. We believe that repeating the new concepts and vocabulary learned during these activities and modelling children for using them at home would contribute significantly to their learning process.

Our first activity will be about greeting people. The aim of this activity is to teach children use greeting words such as "hello, good morning, have a good day, good afternoon, and good night" at the right time of the day. We also emphasize the importance of gestures like eye contact, smiling face and using a kind voice when greeting people.

A second activity will be about introducing self and others. When introducing others, we expect your child to tell the name of the person, his or her relevance with this person and a few characteristics of the person that he or she is introducing. Within this framework you can play an "introducing game" with your child. You can tell your name, surname, occupation, your favorite meal, color, etc. and then you can ask your child to introduce you with a third person (e.g. sister, brother). You can also ask your child to introduce one of his/her friends to you.

Our last activity for this week is about saying "goodbye". We will learn the phrases we use when we are leaving, and how to say goodbye at different times of the day. You can also encourage your child to eye contact when saying goodbye and using the appropriate phrases when leaving a place.

We wish you a pleasant week!

APPENDIX K

CHALLENGING SITUATION TASK SAMPLE ITEMS, INSTRUCTIONS AND PICTURE CARDS

1. Put out the situation card.
   Mary/John is having a good time playing in the sandbox when Bobby hits her/him.

   When that happens to you, how do you feel? Do you feel _____? _____? _____? _____? <Label each emotion card from the shuffled pile.>

   What do you do? Do you _____? <Set down the appropriate card for each choice.> Tell him it's not a nice thing to do? Hit him? Cry? Go play somewhere else?

2. Put out the situation card.
   Mary/John was kicking a soccer ball. Bobby came and took the soccer ball.

   When that happens to you, how do you feel? Do you feel _____? _____? _____? _____? <Label each emotion card from the shuffled pile.>

   What do you do? Do you _____? <Set down the appropriate card for each choice.> Ask Bobby to play with you? Grab the ball back or yell at him? Cry? Go play with something else?

3. Put out the situation card.
   Mary/John asked Bobby to play with her/him. But Bobby said that he doesn't want to play with Mary/John. He is going to play with Tom.

   When that happens to you, how do you feel? Do you feel _____? _____? _____? _____? <Label each emotion card from the shuffled pile.>

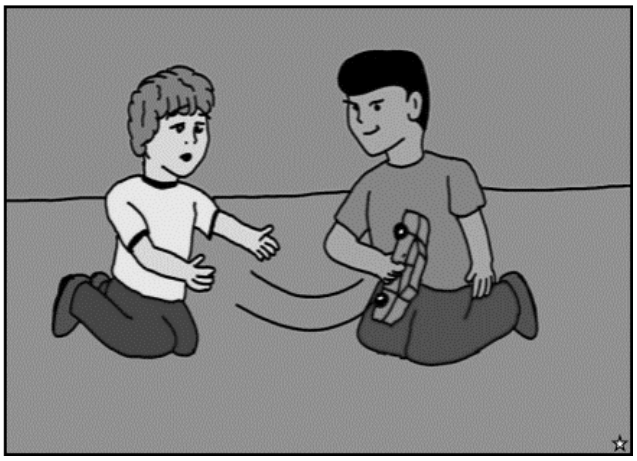
   What do you do? Do you _____? <Set down the appropriate card for each choice.> Ask if you can play with Tom too? Push Bobby and say "you're not my friend" Cry? Go play with someone else?

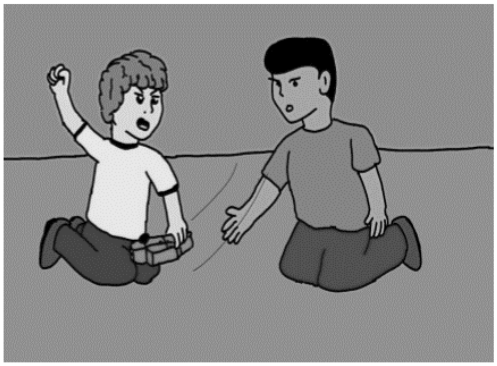
4. Put out the situation card.
   Mary/John drew a picture of a dog. Bobby saw it and said "It doesn't look like a dog. It looks like an ugly monster!" and started laughing.

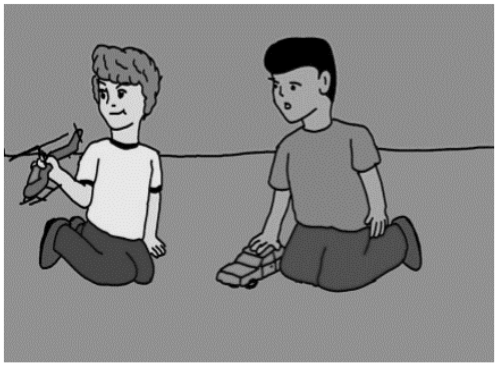
   When that happens to you, how do you feel? Do you feel _____? _____? _____? _____? <Label each emotion card from the shuffled pile.>

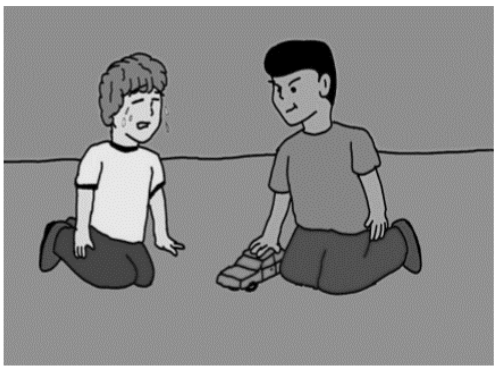
   What do you do? Do you _____? <Set down the appropriate card for each choice.> Say to Bobby, "That's Ok, I like my picture" Hit Bobby or yell at him? Cry? Stop drawing and go find something else to do?

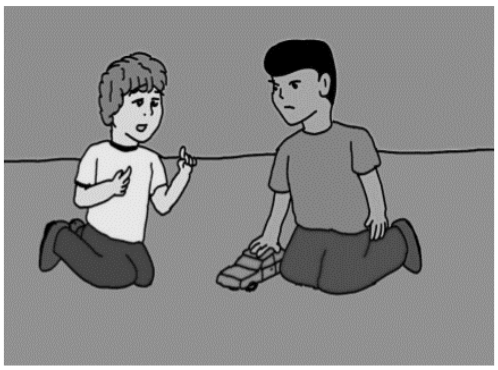
SAMPLE PICTURE CARDS





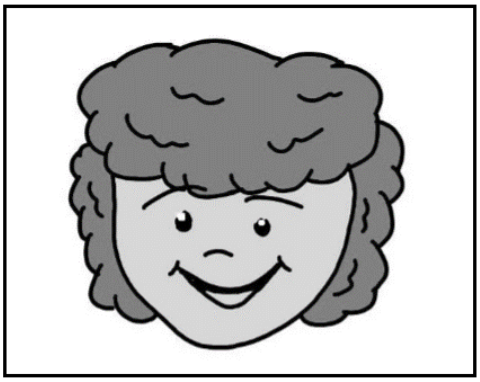


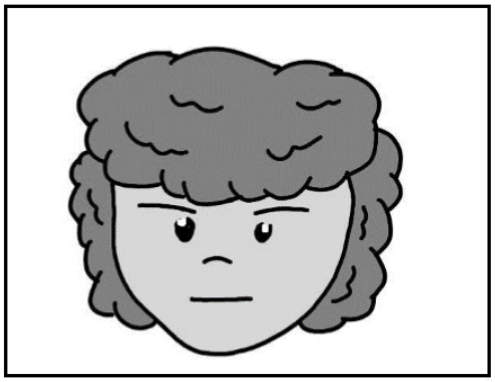




Sample behavioral responses (aggressive, avoidant / passive, crying, and socially competent)

EMOTION CARDS

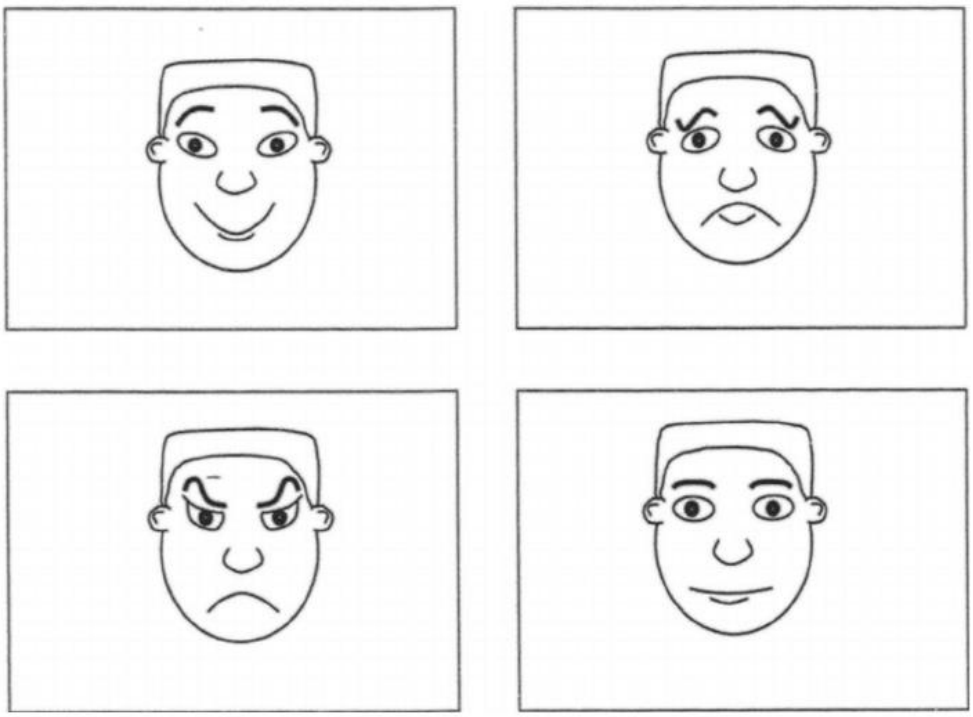




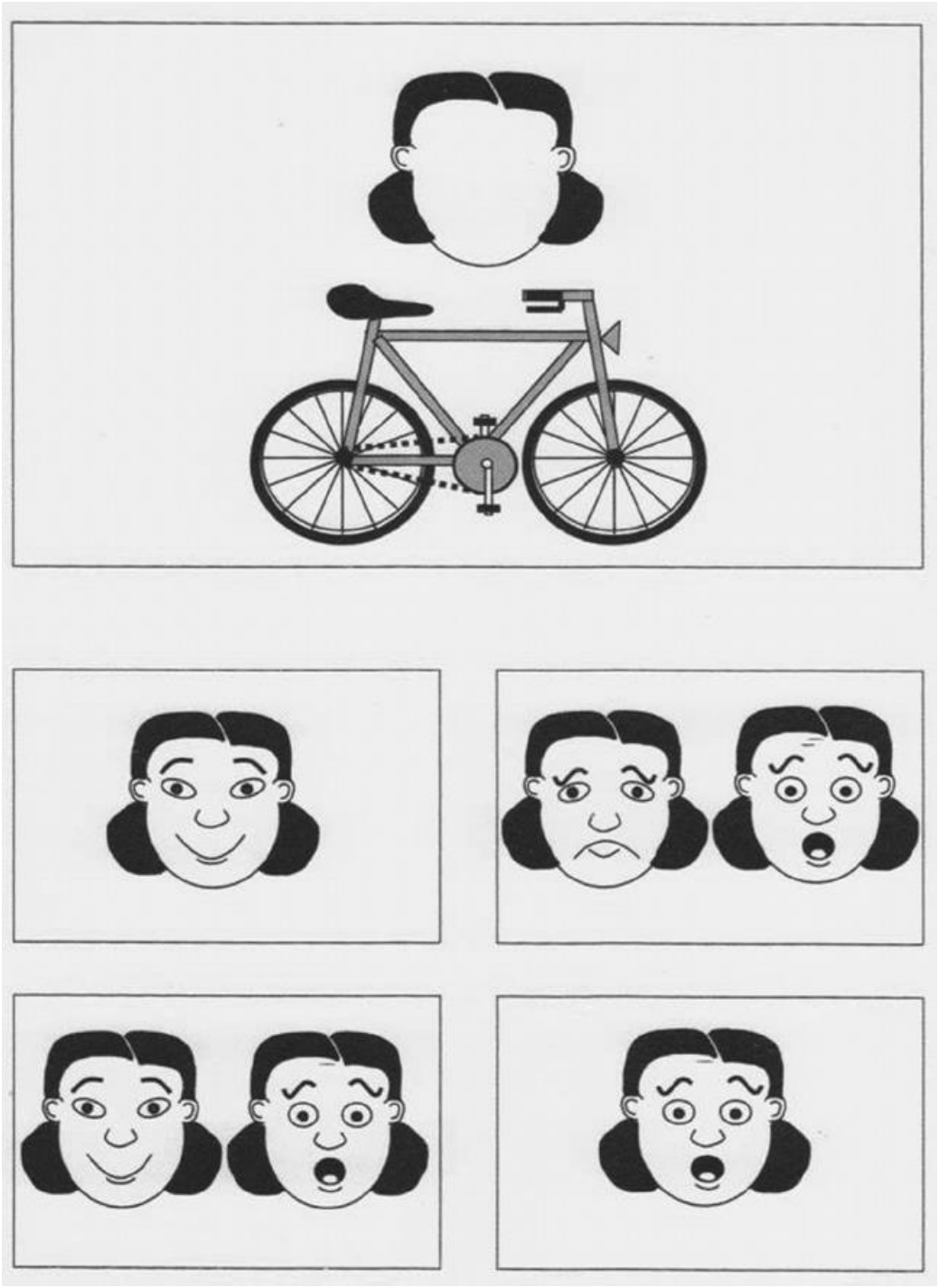
(Happy, neutral, angry, sad)

APPENDIX L

TEST OF EMOTION RECOGNITION SAMPLE PICTURES



“Simple emotion recognition cards. (Look at those pictures. Can you show me the boy with a sad face?)”



“Female version, mixed emotions comprehension (Questions: This child, whose name is Zeynep, is looking at the beautiful bike that she just received for her birthday. At the same time, she thinks that she could fall and hurt, as she is not yet able to drive it. Can you point the picture that shows how Zeynep feels? She is happy, sad and frightened, happy and frightened or frightened?).”

APPENDIX M

SOCIAL COMPETENCE AND BEHAVIOR EVALUATION INVENTORY-30 –

FAMILY FORM

There are some statements listed below concerning emotional states and behaviors of a child. Considering the indicated frequency scale and based on your observations, please rate how often the given statements are applicable to your child. This behavior is:

NEVER (1) SOMETIMES (2 or 3) FREQUENTLY (4 or 5) ALWAYS (6) applicable to my child.

	NEVER	**SOMETIMES**	**FREQ.**	**ALWAYS**
	1	**2 or 3**	**4 or 5**	**6**
1. Maintains neutral facial expression	**1**	**2 3**	**4 5**	**6**
2. Comforts or assists another child in difficulty	**1**	**2 3**	**4 5**	**6**
3. Easily frustrated	**1**	**2 3**	**4 5**	**6**
4. Gets angry when interrupted	**1**	**2 3**	**4 5**	**6**
5. Irritable, get mad easily	**1**	**2 3**	**4 5**	**6**
6. Helps with everyday tasks (setting/clearing table)	**1**	**2 3**	**4 5**	**6**
7. Timid, afraid (avoids new situations)	**1**	**2 3**	**4 5**	**6**
8. Sad, unhappy, or depressed	**1**	**2 3**	**4 5**	**6**
9. Inhibited or uneasy in group	**1**	**2 3**	**4 5**	**6**
10. Screams or yells easily	**1**	**2 3**	**4 5**	**6**
11. Works easily in a group	**1**	**2 3**	**4 5**	**6**
12. Inactive, watches the other children play	**1**	**2 3**	**4 5**	**6**
13. Negotiates solutions to conflicts	**1**	**2 3**	**4 5**	**6**
14. Remains apart, isolated from the group	**1**	**2 3**	**4 5**	**6**
15. Takes other children's point into account	**1**	**2 3**	**4 5**	**6**

16. Hits, bites, or kicks other children	**1**	**2**	**3**	**4**	**5**	**6**
17. Cooperates with other children in group activities	**1**	**2**	**3**	**4**	**5**	**6**
18. Gets into conflict with other children	**1**	**2**	**3**	**4**	**5**	**6**
19. Tired	**1**	**2**	**3**	**4**	**5**	**6**
20. Takes care of toys	**1**	**2**	**3**	**4**	**5**	**6**
21. Doesn't talk or interact during group activities	**1**	**2**	**3**	**4**	**5**	**6**
22. Attentive toward younger children	**1**	**2**	**3**	**4**	**5**	**6**
23. Goes unnoticed in a group	**1**	**2**	**3**	**4**	**5**	**6**
24. Forces other children to do things they don't want to	**1**	**2**	**3**	**4**	**5**	**6**
25. Hits teacher or destroys things when angry with teacher	**1**	**2**	**3**	**4**	**5**	**6**
26. Worries	**1**	**2**	**3**	**4**	**5**	**6**
27. Accepts compromises when reasons are given	**1**	**2**	**3**	**4**	**5**	**6**
28. Opposes parents' suggestions	**1**	**2**	**3**	**4**	**5**	**6**
29. Defiant when reprimanded	**1**	**2**	**3**	**4**	**5**	**6**
30. Takes pleasure in own accomplishments	**1**	**2**	**3**	**4**	**5**	**6**

APPENDIX N

SOCIAL COMPETENCE AND BEHAVIOR EVALUATION INVENTORY-30 –

FAMILY FORM (TURKISH)

SOSYAL YETKİNLİK VE DAVRANIŞ DEĞERLENDİRMESİ-30

Aşağıdaki listede bir çocuğun duygusal durumu ve davranışları ile ilgili ifadeler yer almaktadır. Verilen numaralandırma sistemini göz önünde bulundurarak ifadelerdeki davranışları çocuğunuzda ne kadar sıklıkla gözlemlediğinizi işaretleyiniz: Bu davranışı

HİÇBİR ZAMAN (1) BAZEN (2 veya 3) SIK SIK (4 veya 5) HER ZAMAN (6) gözlemliyorum.

	HİÇBİR ZAMAN 1	**BAZEN 2 veya 3**		**SIKSIK 4 veya 5**		**HER ZAMAN 6**
1. Yüz ifadesi duygularını belli etmez.	**1**	**2**	**3**	**4**	**5**	**6**
2. Zorda olan bir çocuğu teselli eder ya da ona yardımcı olur.	**1**	**2**	**3**	**4**	**5**	**6**
3. Kolaylıkla hayal kırıklığına uğrayıp sinirlenir.	**1**	**2**	**3**	**4**	**5**	**6**
4. Faaliyeti kesintiye uğradığında kızar.	**1**	**2**	**3**	**4**	**5**	**6**
5. Huysuzdur, çabuk kızıp öfkelenir.	**1**	**2**	**3**	**4**	**5**	**6**
6. Gündelik işlerde yardım eder.	**1**	**2**	**3**	**4**	**5**	**6**
7. Çekingen, ürkektir; yeni ortamlardan ve durumlardan kaçınır.	**1**	**2**	**3**	**4**	**5**	**6**

8. Üzgün, mutsuz ya da depresiftir.	**1**	**2**	**3**	**4**	**5**	**6**
9. Grup içinde içe dönük ya da grupta olmaktan huzursuz görünür.	**1**	**2**	**3**	**4**	**5**	**6**
10. En ufak bir şeyde bağırır ya da çığlık atar.	**1**	**2**	**3**	**4**	**5**	**6**
11. Grup içinde kolaylıkla çalışır.	**1**	**2**	**3**	**4**	**5**	**6**
12. Hareketsizdir, oynayan çocukları uzaktan seyreder.	**1**	**2**	**3**	**4**	**5**	**6**
13. Anlaşmazlıklara çözüm yolları arar.	**1**	**2**	**3**	**4**	**5**	**6**
14. Gruptan ayrı, kendi başına kalır.	**1**	**2**	**3**	**4**	**5**	**6**
15. Diğer çocukların görüşlerini dikkate alır.	**1**	**2**	**3**	**4**	**5**	**6**
16. Diğer çocuklara vurur, onları ısırır ya da tekmeler.	**1**	**2**	**3**	**4**	**5**	**6**
17. Grup faaliyetlerinde diğer çocuklarla birlikte çalışır, onlarla iş birliği yapar.	**1**	**2**	**3**	**4**	**5**	**6**
18. Diğer çocuklarla anlaşmazlığa düşer.	**1**	**2**	**3**	**4**	**5**	**6**
19. Yorgundur.	**1**	**2**	**3**	**4**	**5**	**6**

20. Oyuncaklara iyi bakar, oyuncakların kıymetini bilir.	**1**	**2**	**3**	**4**	**5**	**6**
21. Grup faaliyetleri sırasında konuşmaz ya da faaliyetlere katılmaz.	**1**	**2**	**3**	**4**	**5**	**6**
22. Kendinden küçük çocuklara karşı dikkatlidir.	**1**	**2**	**3**	**4**	**5**	**6**
23. Grup içinde fark edilmez.	**1**	**2**	**3**	**4**	**5**	**6**
24. Diğer çocukları istemedikleri şeyleri yapmaya zorlar.	**1**	**2**	**3**	**4**	**5**	**6**
25. Ebeveynine kızdığı zaman ona vurur ya da çevresindeki eşyalara zarar verir.	**1**	**2**	**3**	**4**	**5**	**6**
26. Endişeye kapılır.	**1**	**2**	**3**	**4**	**5**	**6**
27. Akla yatan açıklamalar yapıldığında uzlaşmaya varır.	**1**	**2**	**3**	**4**	**5**	**6**
28. Ebeveyninin önerilerine karşı çıkar.	**1**	**2**	**3**	**4**	**5**	**6**
29. Cezalandırıldığında (örneğin herhangi bir şeyden yoksun bırakıldığında) başkaldırır, karşı koyar.	**1**	**2**	**3**	**4**	**5**	**6**
30. Kendi başarılarından memnuniyet duyar.	**1**	**2**	**3**	**4**	**5**	**6**

APPENDIX O

SOCIAL COMPETENCE AND BEHAVIOR EVALUATION INVENTORY-30 –

TEACHER FORM

There are some statements listed below concerning emotional states and behaviors of a child. Considering the indicated frequency scale and based on your observations, please rate how often the given statements are applicable to your student. This behavior is:

NEVER (1) SOMETIMES (2 or 3) FREQUENTLY (4 or 5) ALWAYS (6) applicable to my student.

	NEVER	**SOMETIMES**	**FREQ.**	**ALWAYS**
	1	**2 or 3**	**4 or 5**	**6**
1. Maintains neutral facial expression	**1**	**2 3**	**4 5**	**6**
2. Comforts or assists another child in difficulty	**1**	**2 3**	**4 5**	**6**
3. Easily frustrated	**1**	**2 3**	**4 5**	**6**
4. Gets angry when interrupted	**1**	**2 3**	**4 5**	**6**
5. Irritable, get mad easily	**1**	**2 3**	**4 5**	**6**
6. Helps with everyday tasks (distribute snacks)	**1**	**2 3**	**4 5**	**6**
7. Timid, afraid (avoids new situations)	**1**	**2 3**	**4 5**	**6**
8. Sad, unhappy, or depressed	**1**	**2 3**	**4 5**	**6**
9. Inhibited or uneasy in group	**1**	**2 3**	**4 5**	**6**
10. Screams or yells easily	**1**	**2 3**	**4 5**	**6**
11. Works easily in a group	**1**	**2 3**	**4 5**	**6**
12. Inactive, watches the other children play	**1**	**2 3**	**4 5**	**6**
13. Negotiates solutions to conflicts	**1**	**2 3**	**4 5**	**6**
14. Remains apart, isolated from the group	**1**	**2 3**	**4 5**	**6**

15. Takes other children's point into account	**1**	**2**	**3**	**4**	**5**	**6**
16. Hits, bites, or kicks other children	**1**	**2**	**3**	**4**	**5**	**6**
17. Cooperates with other children in group activities	**1**	**2**	**3**	**4**	**5**	**6**
18. Gets into conflict with other children	**1**	**2**	**3**	**4**	**5**	**6**
19. Tired	**1**	**2**	**3**	**4**	**5**	**6**
20. Takes care of toys	**1**	**2**	**3**	**4**	**5**	**6**
21. Doesn't talk or interact during group activities	**1**	**2**	**3**	**4**	**5**	**6**
22. Attentive toward younger children	**1**	**2**	**3**	**4**	**5**	**6**
23. Goes unnoticed in a group	**1**	**2**	**3**	**4**	**5**	**6**
24. Forces other children to do things they don't want to	**1**	**2**	**3**	**4**	**5**	**6**
25. Hits teacher or destroys things when angry with teacher	**1**	**2**	**3**	**4**	**5**	**6**
26. Worries	**1**	**2**	**3**	**4**	**5**	**6**
27. Accepts compromises when reasons are given	**1**	**2**	**3**	**4**	**5**	**6**
28. Opposes teacher's suggestions	**1**	**2**	**3**	**4**	**5**	**6**
29. Defiant when reprimanded	**1**	**2**	**3**	**4**	**5**	**6**
30. Takes pleasure in own accomplishments	**1**	**2**	**3**	**4**	**5**	**6**

APPENDIX P

SOCIAL COMPETENCE AND BEHAVIOR EVALUATION INVENTORY-30 –

TEACHER FORM (TURKISH)

SOSYAL YETKİNLİK VE DAVRANIŞ DEĞERLENDİRMESİ-30

Aşağıdaki listede bir çocuğun duygusal durumu ve davranışları ile ilgili ifadeler yer almaktadır. Verilen numaralandırma sistemini göz önünde bulundurarak ifadelerdeki davranışları öğrencinizde ne kadar sıklıkla gözlemlediğinizi işaretleyiniz: Bu davranışı

HİÇBİR ZAMAN (1) BAZEN (2 veya 3) SIK SIK (4 veya 5) HER ZAMAN (6) gözlemliyorum.

	HİÇBİR ZAMAN 1	**BAZEN 2 veya 3**		**SIKSIK 4 veya 5**		**HER ZAMAN 6**
1. Yüz ifadesi duygularını belli etmez.	**1**	**2**	**3**	**4**	**5**	**6**
2. Zorda olan bir çocuğu teselli eder ya da ona yardımcı olur.	**1**	**2**	**3**	**4**	**5**	**6**
3. Kolaylıkla hayal kırıklığına uğrayıp sinirlenir.	**1**	**2**	**3**	**4**	**5**	**6**
4. Faaliyeti kesintiye uğradığında kızar.	**1**	**2**	**3**	**4**	**5**	**6**
5. Huysuzdur, çabuk kızıp öfkelenir.	**1**	**2**	**3**	**4**	**5**	**6**
6. Gündelik işlerde yardım eder.	**1**	**2**	**3**	**4**	**5**	**6**
7. Çekingen, ürkektir; yeni ortamlardan ve durumlardan kaçınır.	**1**	**2**	**3**	**4**	**5**	**6**

8. Üzgün, mutsuz ya da depresiftir.	**1**	**2**	**3**	**4**	**5**	**6**
9. Grup içinde içe dönük ya da grupta olmaktan huzursuz görünür.	**1**	**2**	**3**	**4**	**5**	**6**
10. En ufak bir şeyde bağırır ya da çığlık atar.	**1**	**2**	**3**	**4**	**5**	**6**
11. Grup içinde kolaylıkla çalışır.	**1**	**2**	**3**	**4**	**5**	**6**
12. Hareketsizdir, oynayan çocukları uzaktan seyreder.	**1**	**2**	**3**	**4**	**5**	**6**
13. Anlaşmazlıklara çözüm yolları arar.	**1**	**2**	**3**	**4**	**5**	**6**
14. Gruptan ayrı, kendi başına kalır.	**1**	**2**	**3**	**4**	**5**	**6**
15. Diğer çocukların görüşlerini dikkate alır.	**1**	**2**	**3**	**4**	**5**	**6**
16. Diğer çocuklara vurur, onları ısırır ya da tekmeler.	**1**	**2**	**3**	**4**	**5**	**6**
17. Grup faaliyetlerinde diğer çocuklarla birlikte çalışır, onlarla iş birliği yapar.	**1**	**2**	**3**	**4**	**5**	**6**
18. Diğer çocuklarla anlaşmazlığa düşer.	**1**	**2**	**3**	**4**	**5**	**6**
19. Yorgundur.	**1**	**2**	**3**	**4**	**5**	**6**

20. Oyuncaklara iyi bakar, oyuncakların kıymetini bilir.	**1**	**2**	**3**	**4**	**5**	**6**
21. Grup faaliyetleri sırasında konuşmaz ya da faaliyetlere katılmaz.	**1**	**2**	**3**	**4**	**5**	**6**
22. Kendinden küçük çocuklara karşı dikkatlidir.	**1**	**2**	**3**	**4**	**5**	**6**
23. Grup içinde fark edilmez.	**1**	**2**	**3**	**4**	**5**	**6**
24. Diğer çocukları istemedikleri şeyleri yapmaya zorlar.	**1**	**2**	**3**	**4**	**5**	**6**
25. Ebeveynine kızdığı zaman ona vurur ya da çevresindeki eşyalara zarar verir.	**1**	**2**	**3**	**4**	**5**	**6**
26. Endişeye kapılır.	**1**	**2**	**3**	**4**	**5**	**6**
27. Akla yatan açıklamalar yapıldığında uzlaşmaya varır.	**1**	**2**	**3**	**4**	**5**	**6**
28. Ebeveyninin önerilerine karşı çıkar.	**1**	**2**	**3**	**4**	**5**	**6**
29. Cezalandırıldığında (örneğin herhangi bir şeyden yoksun bırakıldığında) başkaldırır, karşı koyar.	**1**	**2**	**3**	**4**	**5**	**6**
30. Kendi başarılarından memnuniyet duyar.	**1**	**2**	**3**	**4**	**5**	**6**

APPENDIX Q

PRESCHOOL AND KINDERGARTEN BEHAVIOR SCALE II-A

(THE SOCIAL SKILL SUBSCALE)

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

Never Rarely Sometimes Often

0 1 2 3

*** Please complete all items, and do not circle between numbers.

		Never	**Rarely**	**Smt.**	**Often**
1	Works or plays independently	0	1	2	3
2	Is cooperative	0	1	2	3
3	Smiles and laughs with other children	0	1	2	3
4	Plays with several different children	0	1	2	3
5	Tries to understand another child's behavior ("Why are you crying?")	0	1	2	3
6	Is accepted and liked by other children	0	1	2	3
7	Follows instructions from adults	0	1	2	3
8	Attempts new tasks before asking for help	0	1	2	3
9	Makes friends easily	0	1	2	3
10	Shows self-control	0	1	2	3
11	Is invited by other children to play	0	1	2	3
12	Uses free time in an acceptable way	0	1	2	3
13	Is able to separate from parent without extreme distress	0	1	2	3
14	Participates in family or classroom discussions	0	1	2	3
15	Asks for help from adults when needed	0	1	2	3
16	Sits and listens when stories are being read	0	1	2	3
17	Stands up for other children's rights ("That's his!")	0	1	2	3
18	Adapts well to different environments	0	1	2	3
19	Has skills or abilities that are admired by peers	0	1	2	3
20	Comforts other children who are upset	0	1	2	3
21	Invites other children to play	0	1	2	3
22	Cleans up his/her messes when asked	0	1	2	3

23	Follows rules	0	1	2	3
24	Seeks comfort from an adult when hurt	0	1	2	3
25	Shares toys and other belongings	0	1	2	3
26	Stands up for his/her rights	0	1	2	3
27	Apologizes for accidental behavior that may upset others	0	1	2	3
28	Gives in or compromises with peers when appropriate	0	1	2	3
29	Accepts decisions made by adults	0	1	2	3
30	Takes turns with toys and other objects	0	1	2	3
31	Is confident in social situations	0	1	2	3
32	Responds appropriately when corrected	0	1	2	3
33	Is sensitive to adult problems (“Are you sad?”)	0	1	2	3
34	Shows affection for other children	0	1	2	3

APPENDIX R

PRESCHOOL AND KINDERGARTEN BEHAVIOR SCALE II-A

(THE SOCIAL SKILL SUBSCALE)

OKUL ÖNCESİ VE ANAOKULU DAVRANIŞ ANKETİ

Lütfen bu değerlendirme formunda yer alan maddelerle öğrencinizi değerlendirin. Değerlendirmede **son 3 ay süresince** öğrencinizde gözlemlediğiniz davranışlar temel alınmalı. Değerlendirme puanlarında görülen her maddede takip edilen düzen:

Asla Nadiren Bazen Sık sık

0 1 2 3

*** Lütfen bütün maddeleri tamamlayınız ve numaraların aralarını daire içine almayınız.

		Asla	**Nadiren**	**Bazen**	**Sık Sık**
1	Bağımsız olarak çalışır veya oynar	0	1	2	3
2	İşbirlikçi midir?	0	1	2	3
3	Diğer çocuklarla güler ve eğlenir	0	1	2	3
4	Birkaç farklı çocukla oynar	0	1	2	3
5	Diğer çocukların davranışlarını anlamaya çalışır ("Niçin ağlıyorsun"?)	0	1	2	3
6	Diğer çocuklar tarafından sevilir ve kabul edilir mi?	0	1	2	3
7	Yetişkinlerin talimatlarına uyar	0	1	2	3
8	Yeni bir işe kalkışmadan önce yardım ister	0	1	2	3
9	Kolay arkadaş edinir	0	1	2	3
10	Kendi kendini kontrol edebilir	0	1	2	3
11	Diğer çocuklar tarafından oyuna çağırılır mı?	0	1	2	3
12	Boş zamanlarını uygun bir şekilde kullanır	0	1	2	3
13	Aşırı strese girmeden ailesinden ayrılabilir mi?	0	1	2	3
14	Aile içinde veya sınıfta düşüncelerini ifade edebilir	0	1	2	3
15	İhtiyacı olduğunda yetişkinlerden yardım ister	0	1	2	3
16	Hikayeler okunduğunda dinler	0	1	2	3
17	Diğer çocuklara yapılan haksızlığa karşı çıkar	0	1	2	3
18	Farklı ortamlara iyi uyum sağlar	0	1	2	3
19	Beceri ve kabiliyetleri akranları tarafından beğenilir	0	1	2	3
20	Arkadaşları üzgün olduğunda onları teselli eder	0	1	2	3
21	Diğer çocukları oyuna çağırır	0	1	2	3

22	Kendisinden istendiğinde çalıştığı ortamı temizler	0	1	2	3
23	Kurallara uyar	0	1	2	3
24	Yaralandığında bir yetişkinden yardım bekler	0	1	2	3
25	Oyuncak ve şahsi eşyalarını paylaşır	0	1	2	3
26	Haklı olduğu durumlarda itiraz eder	0	1	2	3
27	Kaza ile başkalarını üzdüğünde özür diler	0	1	2	3
28	Haksız olduğu durumlarda arkadaşları ile uzlaşma yoluna gider	0	1	2	3
29	Yetişkinler tarafından verilen kararları kabul eder	0	1	2	3
30	Oyuncaklarla oynayabilmek için sırasını bekler	0	1	2	3
31	Sosyal faaliyetlerde kendine güvenir mi?	0	1	2	3
32	Yanlışı düzeltildiğinde uygun bir şekilde yanıtlar	0	1	2	3
33	Yetişkinlerin problemlerine duyarlı mıdır? (“Üzgün müsün?”)	0	1	2	3
34	Diğer çocuklara sevgisini gösterir	0	1	2	3

APPENDIX S

PROGRAM IMPLEMENTATION FORM

13-17 February 2017

PROGRAM IMPLEMENTATION FORM

Activities	13 Feb Monday	14 Feb Tuesday	15 Feb Wednesday	16 Feb Thursday	17 Feb Friday
Activity 1 Choose a partner					
Activity 1 Let's get to know each other					
Activity 1 Have you seen the purple fish?					

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