EXPERIMENTAL EXAMINATION OF THE EFFECTS OF PARENT-IMPLEMENTED SELECT INTERVENTION ON SOCIAL-EMOTIONAL DEVELOPMENT OF INFANTS AND TODDLERS

by

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DISSERTATION ABSTRACT

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Title: Experimental Examination of the Effects of Parent Implemented SELECT Intervention on Social Emotional Development of Infants and Toddlers

In the present study, a concurrent and a nonconcurrent multiple baseline single-case design across parent-child dyads were used to evaluate the effects of a parent implemented intervention, using the SELECT curriculum. Three early intervention service providers trained and coached eight parents of young children with developmental disabilities or delays on the use of packaged SELECT intervention strategies during their home visits. Visual analysis, non-overlap non-parametric analysis, and parametric analyses of the data revealed desired effects for the majority of the participants. Implications for practice, limitations of the study, and suggestions for future research are discussed.

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CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

The aims of this chapter are to provide a) an introduction defining the issues that is related to the present study, b) a selective review of the key literature and limitations and gaps in the current literature that the present study aims to address, and c) purpose of the present study and the research questions. First, the literature are summarized for available social-emotional curricula that are being commonly used for young children from birth to 6 years of age. Second, literature in parent training and coaching within early intervention is investigated. Next, the limitations found from the summaries of research are identified; and finally, the chapter concludes with a summary of how the present study addresses the gaps in the literature with outlined research questions and logic model of the present study.

Introduction

Social-emotional development in early childhood. Social-emotional development starts in infancy with bonding between a parent and a child and continues over the course of early childhood by interacting with other family members, peers, and other adults (e.g., teachers) in the natural environment. Early social-emotional skills include expressing physical discomfort that results in a parent meeting the infant's needs in return. Although there is no unitary definition of social-emotional skills, common features that are agreed upon include effective and positive interactions with others (Rubin et al., 1998), initiating and maintaining positive relationships (Howes, 1987), the ability to effectively manage emotions (LeBuffe et al. 2013), demonstrating positive behaviors towards others, being attentive, and persistence at challenging tasks (National

Research Council and Institutes of Medicine, 2000). Social-emotional skill development in early childhood plays a critical role and is significantly linked to school readiness and later academic success in life, as well as quality of life (Powell & Dunlap, 2009). An estimate of children entering preschool who engage in challenging behavior was reported as 14 to 30% (Barbarin, 2007), because they lack the age-appropriate social-emotional skills to thrive in classroom. This, in turn, might result in missed learning opportunities in the classroom, academic failure, increased likelihood of challenging behaviors, and eventually dropping out of school in later years (Dunlap & Powell, 2009; Strain & Timm, 2001)). Although most children gain these skills naturally in their home environment, children with developmental delays or disabilities may demonstrate a lack of understanding of social interactions, expressing emotions, or receptive and/or expressive communication (Case-Smith, 2013).

Parents' role in social-emotional development in early years. There are numerous interventions or curricula designed to be in use for preschool, kindergarten, and school age children. Promoting Alternative Thinking Strategies (PATHS; Kusche & Greenberg, 1994), Second Step (McMahon et al., 2000), and Incredible Years (Webster-Stratton, 1997) are some of the examples of classroom-based programs that are commonly being used. However, not all of these curricula solely focus on social-emotional development of young children with disabilities and/or include family or parent components. While social-emotional interventions in classroom contexts show promise to increase prosocial behaviors of children, there are myriad reasons to target home settings for young children with or at risk for disabilities, which can be explained with the tenets that Early Intervention/ Early Childhood Special Education (EI/ECSE) is

built upon. The most common ground of the seven assumptions of EI/ECSE is being pertinent to families of young children with disabilities and natural environments. Examples of these tenets are: homes and families are primary nurturing context for infants, toddlers, and young children with disabilities (Odom & Wolery, 2003), strengthening parent-infant interactions (Girolametto et al., 1994), providing support by creating responsive environments (Landry et al., 2001), providing learning opportunities in home contexts (Dunst, Hambry, et al., 2000), and family-centered planning (McWilliam et al., 1998). Taken all together, it is apparent that early intervention recognizes the importance of parent-child interactions and parents' role in their children's development. In addition, for young children with disabilities, but particularly children with autism spectrum disorders (ASD), there is extensive amount of research that indicates that parent training and coaching is highly effective to increase parents' skills to implement interventions to support their children's development in many domains (e.g., communication, social skills, challenging behavior, and other adaptive skills). Moreover, parent-implemented interventions are identified as one of the 27 evidence-based practices for children with autism by the National Professional Center on ASD (Schultz, 2013). Parent-implemented interventions have shown many positive outcomes for young children with ASD and their parents (Vismara, Colombi, & Rogers, 2009). Furthermore, previous research suggests that there are several advantages of training parents. First, training parents to be interventionists may reduce the cost of interventions and increase the intensity of interventions that children receive throughout the day (Loughrey et al., 2014). In addition, parents can train other change agents such as siblings, partners, extended family members who interact with the child to implement interventions, which

in turn may increase generalization of the child skills. Finally, previous studies have shown that parent training increases parent confidence and decreases parental stress (Estes et al., 2014).

Barton and Fettig (2013) conducted a literature review to analyze parent-implemented interventions for young children with disabilities. The authors found that the vast majority (92%) of the child participants in the reviewed articles were 3 years old or older. Given that Part C of IDEA provides services for infants and toddlers and their families, it is critical that parents of infants and toddlers receive parent training to implement interventions that will support their child's development. Moreover, Barton and Fettig (2013) investigated the articles that reported professional delivered parent training and found that only 8% of the reviewed articles reported the trainer education or experience. Considering the ample evidence supporting parent-implemented interventions, it is imperative that parents are trained and coached by experienced, qualified, and competent professionals. Although early interventionists may have experience in focused interventions for developmental and pre-academic skills, they also report being unprepared to intervene on social-emotional skills and challenging behavior of young children that they serve (Hinshaw-Fuselier et al., 2009). Early interventionists also report that they lack adequate training to gain skills to address social-emotional needs of young children with disabilities (Hinshaw-Fuselier et al., 2009).

In the next section, a more detailed summary of literature on the social-emotional curricula for young children and parent-implemented interventions are discussed with specific examples of literature reviews and experimental studies.

Literature review

The purpose of this section is to summarize and identify the gaps in the literature related to social-emotional curricula in early intervention and in early childhood settings with families and early interventionists. A review of the literature on the social-emotional curricula or universal curricula for young children with disabilities in addition to a review of the literature on training and coaching parents to implement interventions is presented. Last, limitations in the current literature are discussed and linked to aims of the proposed study with research questions.

There is a large body of interventions to increase young children's social-emotional skills with the use of social-emotional curricula in early childhood settings such as preschools or kindergarten classrooms, implemented by teachers (Barton & Fettig, 2014; Joseph & Strain, 2003). However, there remain gaps in the literature regarding the implementation of these social-emotional interventions in family homes by parents and with infants and toddlers. The literature review addresses following questions: (1) What are the most common social-emotional curricula used in EI/ECSE settings; (2) What are the most common settings and interventionists implementing these interventions; (3) What are the most common components of parent training and coaching; (4) What professionals most commonly train and coach parents of young children with disabilities; and (5) What are the most common child outcomes that are addressed with parent-implemented interventions?

Review Methods. A selective search of recent systematic literature reviews on the social-emotional curricula in EI/ECSE settings was conducted using Academic Search Premier, ERIC, and PsycInfo. Search terms that were used were: "infant" or "toddler" and "social-emotion*" and "intervention" or "instruction" or "curricul*" and

"analysis" or "review of literature" or "literature review" or "meta-analysis" or "systematic review". This search yielded 212 articles and studies were extracted based on the predetermined inclusion criteria: a) review of social-emotional interventions or curricula implemented by parents, teachers, or early interventionists b) reviewing interventions for children birth to 6, with or at risk for disabilities, c) targeted social-emotional skills, and d) was published between 2003 and 2018. Systematic reviews that summarized parenting interventions, but did not examine parent-implemented social emotional intervention or curricula were excluded.

A second selective search was conducted using the same electronic databases with following search terms: "parent implemented intervention" or "parent mediated intervention" or "caregiver implemented intervention" or "caregiver mediated intervention" and "infants" or "toddlers" and "review of literature" or "literature review" or "meta-analysis" or "systematic review". This search yielded 41 results of parent-implemented interventions. Only five of the articles are summarized in this section due to the focus of the proposed study on social emotional intervention or curriculum.

Social-emotional curricula. Joseph and Strain (2003) provided a summary of 10 social-emotional curricula for children between the ages of 3 and 6, with an aim to identify the social-emotional curricula with peer-reviewed articles that provide data for the curricula and evaluate the efficacy of the curricula based on a set of criteria. The authors identified a total of nine adaption indicators: "(a) treatment fidelity, (b) treatment generalization, (c) treatment maintenance, (d) social validity of outcomes, (e) acceptability of interventions, (f) replication across investigators, (g) replication across clinical groups, (h) evidence across ethnic/racially diverse groups, and (i) evidence for

replication across settings" (pp. 63). The authors discussed eight curricula (i.e., social-emotional intervention for 4-year-olds at risk for disability, Self-Determination Curriculum, PALS: Developing Social Skills Through Language, Communication Skill Builders, DARE to Be You, I Can Problem Solve, Al's Pals: Kids Making Healthy Choices, Incredible Years Series: Dinosaur School, and First Step to Success) in more detail, whereas, they discussed two of them as promising programs (i.e., Second Step and PATHS: Promoting Alternative Thinking Strategies). Based on the authors' predetermined criteria, the level of evidence was indicated low for four, medium for two, and high for two curricula. Among the 10 curricula analyzed, there were only two social-emotional curricula that either included a home component or a parent training component: The Incredible Years Training Series (Webster-Stratton, 1990) and First Step to Success (Walker, 1998). Although the authors reported that they found a number of exceptional studies, they also noted that these interventions were utilized for children at-risk or with externalizing behaviors and these curricula need to be modified to match the needs of children with identified disabilities.

In another review, Powell and Dunlap (2009) conducted a synthesis of interventions that were designed to impact social-emotional-behavioral outcomes for children from birth to 5 years of age. The authors included manualized interventions that had been evaluated with at least one empirical study. The findings of the synthesis were summarized in two major categories: (1) intervention packages that are designed to be used directly with children and (2) packages that target parents or caregivers. The authors identified nine programs within the first group and seven within the second group. Child-directed programs that were different from those discussed in the previous review

conducted by Joseph and Strain (2009) were Emotions Course; Social Skills in Pictures, Stories, and Songs; and Preschool PATHS. In addition, parenting programs were reported, differently than the previous review, Pathways to Competence for Young Children, Triple P Standard, Triple P Stepping Stones, and Parent-Child Interaction Therapy (PCIT). However, some of these parenting programs were aimed to increase parents' self-efficacy, self-esteem, locus of control, stress management, and quality of parent-child relationship, rather than to increase child's social-emotional skills.

Barton and colleagues (2014) conducted a comprehensive literature review to update the Joseph and Strain (2003) review and analyzed a total of 18 curricula focused on social-emotional development and research related to the interventions. The authors adopted the criteria used in the previous review to analyze the level of evidence for each curriculum. The authors reported a larger body of literature and curriculum in this updated review. The classroom-based curricula analyzed were: Emotions Course; Second Step; Reaching Educators, Children, and Parents; Preschool PATHS; Al's Pals; Social Skills in Picture, Stories, and Songs; I Can Problem Solve; Incredible Years: Dinosaur Classroom; Incredible Years: Dinosaur Child Training; and First Step to Success. Furthermore, the authors analyzed parenting interventions, which were: Pathways to Competence for Young Children, Dare to Be You, Child FIRST, Family Checkup, Incredible Years: Parent Training, Triple P Standard, Triple P Stepping Stones, and Parent-Child Interaction Therapy. Similar to the review of literature conducted by Powell and Dunlap (2009), this review also analyzed the parenting programs that are not solely focused on service providers training parents to become interventionists for their children to increase their social-emotional skills. However, the studies within the review included

a wide range of professionals such as social workers, home visitors, early childhood educators, psychologists, teachers, community volunteers, mental health clinicians, family therapists, coaches, counselors, nurses, parent educators, school personnel, and health education and welfare staff. A total list of curricula found by Barton et al. (2014) in addition to the previous reviews is presented in Table 1.

With the purpose of identifying common practice elements in comprehensive interventions, discrete practices, or interventions that target social, emotional, and behavioral development of young children with externalizing behavior, McLeod and colleagues (2017) conducted a literature review. Rather than focusing on the specific curricula and the extent to which they met adoption criteria, the authors focused on identifying what elements were most commonly used in early childhood classroom settings for teachers' use. A total of 49 published articles, evaluating the effects of social-emotional interventions, within randomized group designs, quasi-experimental designs, and single-case research designs. The authors gathered 24 practice elements to the experts on the social-emotional development and had the items rated in terms of necessity, being useful but not essential, and being essential. Of the 24 items, 14 items were rated essential for early childhood classroom (e.g., choices, error correction, modeling, opportunities to respond, scaffolding). Items that were rated either "useful but not essential" or "essential" were tangible reinforcement, rehearsal, narrating choices, and time out from positive reinforcement. Although this review is different in scope and sequence, it extends the literature by identifying elements that early childhood teachers may or may not use. These elements can also be translated into practices in early intervention. For example, early interventionists providing services for infants and

Table 1.

Classroom-Based and Parent-Focused Social-Emotional Curricula for Young Children up to 6 Years Old

Names	References	Target Population	Delivery Method	Components
PALS: Developing Social Skills Through Language, Communication Skills Builders	Vaughn, 1986	Preschool children	Whole classroom	Classroom
Second Step	Committee for Children, 1989	Second and third grade students	Whole classroom	Classroom
Incredible Years Series: Dinosaur School	Webster-Stratton, 1990	Ages 4-7	Whole classroom	Classroom
Parent-Child Interaction Therapy	Hembree-Kigin & McNeil, 1995	Families with children who are 2 to 7 years old	Individual parent-child sessions or small groups	Home
Social-emotional intervention for 4-year-olds at risk	Denham, 1996	Preschool children	Whole classroom	Classroom
DARE to Be You	Miller-Heyl, MacPhee, & Frtiz, 1998	Preschool children, ages 2-5	Parent group and child group	Classroom and home
First Step to Success	Walker et al., 1998	Kindergarten children	Whole classroom with a target child	Classroom

Table 1 (cont.)

Names	References	Target Population	Delivery Method	Components
Al's Pals: Kids Making Healthy Choices	Geller, 1999	Preschool children, ages 4 and 5	Whole classroom	Classroom
Reaching Educators, Children, and Parents	Weiss, 1998	Preschool, kindergarten children	Whole classroom	Classroom and home
Pre-K FAST: Families and Schools Together	McDonald & Howard, 1999	Parents and their children 3-6 years	Parent-child groups	Home
Self-Determination Curriculum	Serna, 1999	Preschool children, ages 3-5	Whole classroom	Classroom
I Can Problem Solve	Shure, 2000	Preschool children, ages 4-5	Small groups	Classroom
Triple P Standard	Sanders, Markie-Dadds, Tully, & Bor (2000)	Parents of children 0-12 years with severe problem behavior	Individual or group sessions	Home
Emotions Course	Izard, 2001	Preschool children, ages 3-5	Whole classroom	Classroom
Incredible Years: Parent Training	Webster-Stratton, 2001	Parents of children 0-6 years	Group sessions	Home

Table 1 (cont.)

Names	References	Target Population	Delivery Method	Components
Triple P Stepping Stones	Sanders, Mazzucchelli, & Studman, 2003	Families of children 0-12 years with a disability	Individual sessions	Home
Incredible Years: Dina Dinosaur Classroom Curriculum Preschool/Kindergarten	Webster-Stratton & Reid, 2004	Preschool and kindergarten children	Whole classroom	Classroom
Preschool PATHS	Domitrovich, Greenberg, Kusche, & Cortes, 2004	Preschool children, ages 3-5	Whole classroom	Classroom
Incredible Years: Dinosaur Child Training Program	Webster-Stratton, 2004	Children ages 3-8	Small group sessions	Classroom and home
Pathways to Competence for Young Children	Landy & Thompson, 2006	Parents of children 0-7 years	Small group sessions	Home
Social Skills in Pictures, Stories, and Songs	Serna, Nielsen, & Forness, 2007	Children in childcare, preschool, and early elementary grades	Whole classroom	Classroom
Family Checkup	Dishion, Stormshak, & Kavanagh, 2011	Families with children aged 2-17 years	Individual sessions	Home

Table 1 (Cont)

Names	References	Target Population	Delivery Method	Components
Child FIRST	Lowell, Carter, Godoy, Paulicin, & Briggs-Gowan, 2011	Children birth to 6 years	Individual sessions	Classroom and home

toddlers with disabilities or at-risk may also utilize these active elements identified by McLeod et al. (2017) to foster social-emotional development of young children.

Parent training/coaching in EI. A review of recent research on the parent-implemented interventions was conducted. In this section, a summary of recent literature reviews is provided. The majority of these literature reviews include parent-implemented interventions for young children with ASD because the majority of recent research included children with ASD and their caregivers more often than children with intellectual and developmental disabilities (Machalicek, Lang, & Raulston, 2015). Previous systematic literature reviews have examined parent-implemented interventions to increase children's communication skills (Gentry & Luiselli, 2008), reduce challenging behavior (Duda, Clarke, Fox, & Dunlap, 2008), and social-communication skills (Meadan et al., 2009). These reviews and empirical studies have shown evidence that parent-implemented interventions are effective for children with disabilities. However, other reviews reported cautious interpretations due to limited intervention or implementation fidelity (Roberts & Kaiser, 2011). To further examine intervention and implementation fidelity of parent-implemented interventions, Barton and Fettig (2013) conducted a systematic literature review of parent-implemented interventions. The

authors analyzed articles in terms of participants, settings, interventions, parent training, fidelity measurement, social validity, rigor and design, and overall outcomes. The majority (92%) of the participants in the reviewed articles were between the ages of 3 and 5 with disabilities or delays (i.e., ASD, developmental delays, and speech/language delays). Given the majority of the participants being young children, it is not surprising that the authors reported setting as mostly families' homes (58%) and 29% clinics; however, in 75% of the studies, parents implemented the interventions in their homes. These interventions varied and included milieu teaching, functional assessment based interventions, Picture Exchange Communication System (PECS), Incredible Years curriculum, and feeding interventions. Therefore, child outcomes also varied and were challenging behavior, language, communication, play skills, adaptive skills, literacy, and social skills. Barton and Fettig (2013) also investigated parent training practices. The practices used to train parents included focusing on routines, collaborative progress monitoring, video modeling, video self-reflection, self-reflection, role-play, performance-based feedback, motivation for practice, opportunities to practice, written directions or intervention manual, and problem solving discussions with professionals. The most commonly utilized parent training practices were video modeling and performance-based feedback. In addition to these practices, trainer education was also examined. However, only 8% of the articles reported any information on trainer experience, education, or qualifications. Intervention fidelity, defined as parent implementation of intervention procedures, was reported in 79% of the studies reviewed by Barton, whereas, implementation fidelity, defined as practices to use for training parents, was reported in 29% of the studies. Overall findings of this literature review suggest that parent-

implemented interventions were effective and when implementation fidelity was reported, it was high. Although the review has identified strengths in the literature, such as high implementation fidelity, number of articles with follow-up provided, and positive child and parent outcomes, the authors suggest that it is important to document measurement of the parent training and coaching practices and investigate the effectiveness of specific coaching practices. One of the example studies with rigorous design was a single-case longitudinal experimental study conducted by Lucyshyn and colleagues (2007). In this study, the authors investigated the efficacy, social validity, and durability of a positive behavior support (PBS) approach for a 5-year-old with autism and challenging behavior. The authors collaboratively identified four family routines at home and in the community to examine rate and latency of challenging behavior, social validity, contextual fit of the intervention plan, and child activity patterns within a multiple baseline design across four settings. Prior to the intervention, an experimental functional analysis was conducted to identify the function of challenging behavior, a family ecology assessment was completed to collect information on family goals, strengths, resources, and supports available, along with family stressors. Then the authors designed a positive behavior support plan to be implemented by parents. Parent training practices included implementation checklists that were particularly created for specific routines, in vivo modeling and coaching, behavioral rehearsal, and problem-solving discussions with parents. Training was provided during each routine at home and in the community one to three times a week and varied in duration with a range from 10 to 85 minutes. The researchers modeled parent behaviors, coached parents while they rehearsed the use of the strategies, supported parents in self-monitoring their own behaviors that

was followed by problem-solving discussions. Finally, the researchers faded their support and moved on to the maintenance support phase, during which the training and coaching were reduced to one session every one to four weeks with decreased durations. During these sessions, the researchers provided a brief coaching before the routines, provided feedback after routine with a problem solving discussion. In addition, generalization was promoted through implementation self-monitoring checklist and use of strategies in untrained settings. A unique feature of this study is measuring long-term follow-up. The authors collected data at 6, 18, 36, 67, and 86 months after the intervention. The findings of this study indicated a number of positive child outcomes as in zero levels of challenging behavior, positive family outcomes as in increased quality of life, and positive parent outcomes such as reduced stress and depression and increased confidence.

McConachie and Diggle (2007) also conducted a literature review of interventions implemented by parents of children with ASD between one and six years of age to establish the effectiveness of parent-implemented interventions for young children with ASD. The authors reviewed studies with a control or comparison group and excluded studies that used single-case research design. They examined assignment of participants to groups, the use of multiple intakes and follow-up measures to assess participants' functioning as well as child, parent, or family outcomes, the length of follow-up, and use of instruments to measure outcomes. Results from 12 studies that met their inclusion criteria demonstrated that the most common child outcomes addressed were core impairments of autism or comorbid symptoms reported by teachers and/or parents such as social-communication delays and challenging behavior. Parent outcomes included knowledge about autism, teaching strategies, the use of communication facilitation

strategies with their children, and stress levels. The authors suggested that randomized control trials that evaluated outcomes of parent training as compared to no training are recent additions to the literature. And these control trials have methodological limitations such as small sample sizes, although most studies reported positive and significant child and parent outcomes. Overall, authors suggest that the review provided sufficient evidence for parent training to increase children's social communication skills. However, it was also stated that there is a need for rigorous research designed to investigate effectiveness in early intervention literature and studies that examine long-term effects of parent training. Particularly, parents of children with ASD might need on-going support rather than an initial training for specific skills. Finally, a future research suggestion was reported in terms of combination of effective intervention components to evaluate most effective ways to obtain positive outcomes for children and their parents.

Similar to the literature review conducted by Barton and Fettig (2013), Lieberman-Betz (2015) focused on fidelity of implementation and evaluated four elements of fidelity of implementation (i.e., dosage, adherence, quality, and responsiveness) within the studies that included parent-implemented interventions for children from birth to 6 years old with disabilities. Participants in the reviewed studies ranged from 10 months to 6 years old. Parent training was most often carried out in a community setting (e.g., clinic or classroom), followed by a combination of home and community settings. The first element of implementation fidelity, dosage, was reported in the majority of the articles (71%), but only 14% of the studies reported how parents implemented interventions in different contexts. The second component, adherence, was defined as adherence at practitioner level (i.e., practitioner use of coaching or education

strategies to support parent implementation of intervention) and was reported in only 34% of the studies. Thirty-three percent of the studies reported practitioners using self-monitoring checklists to assess and document their use of the intervention strategies with parents and only 17% reported agreement with an independent researcher on the self-monitoring checklists. Adherence at parent level (i..e, parent use of intervention strategies with child in absence of coaching) was reported in 60% of the articles. The authors also examined the quality of intervention delivery, referring to "how well the intervention strategies were delivered" and found only 20% of the studies that reported information on the quality. Some studies asked parents to self-report about their confidence level in using strategies, or practitioners to rate themselves. The results of the last component, participant responsiveness, showed that 54% of the studies measured participant responsiveness at the practitioner level and 32% at the parent level. The overall results of this review suggest a lack of fidelity of implementation in parent-implemented early intervention research. Because of the assumption that interventions are effective when they are implemented with high fidelity of implementation and intervention, this review provides valuable information for future research when training parents to implement early intervention research.

Hong, Neely, Gerow, and Gann (2018) approached the parent training and parent-implemented interventions from a different standpoint. They examined the current literature regarding measures on generalization and maintenance of the effects of parent-implemented social and/or communication interventions for children with ASD. Thirty four articles were reviewed in terms of generalization dimension, generalization assessment design, maintenance assessment design, generalization/maintenance teaching

strategy, and latency to maintenance probes. Of the 34 articles, 23 measured generalization and 25 measured maintenance. The generalization/maintenance teaching strategies included six strategies. The most commonly employed strategy was training parents in natural setting, followed by train and hope, which refers to training parents and hoping that it will generalize and maintain. The less common strategies were programming for common stimuli, training to criterion and hope, and training across multiple exemplars. Hong et al. (2018) calculated effect sizes of each article and reported that child performance during maintenance and generalization probes was higher than baseline probes, indicating positive outcomes of parent-implemented social or communication interventions. For example, Moes and Frea (2003) conducted a single-case research study to investigate a contextualized function-based intervention to reduce challenging behavior of three young children with ASD. During intervention planning, information on family context was collected and multiple routines for each participant were identified as relevant to implement a Functional Communication Training (FCT) intervention. The authors also measured generalization across routines in addition to follow-up. The results from the study indicate that the contextualized intervention with the use of family context information contributed to the durable and stable reductions in challenging behavior following a parent-implemented intervention.

In the most recent review of literature, Nevill, Lecavalier, and Stratis (2018) analyzed randomized control trials on the effectiveness of parent-implemented interventions on child ASD symptom severity, socialization, communication/language, daily living skills, and cognitive functioning. Moreover, the authors aimed to determine whether dosage of parent-training was associated with positive child outcomes and

effects of groups that families were assigned to. They reviewed a total of 19 studies published between 2000 and 2015. Child participant age had a mean of 42 months and ranged from 15 to 72 months. The quality of evidence was evaluated using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) ratings. Study quality varied based on child outcome; however, it was found to be very low for socialization, social interactions with others and age-appropriate communication while maintaining positive interactions. Only seven studies reported the dose of parent-delivered interventions outside of the training; three studies reported 30 mins or less intervention a day, one requested parents to implement one hour daily, and other requested two hours of intervention per day. Some studies requested higher doses such as 20 to 25 hours per week but no data were available on the actual delivery. The majority of parent training occurred in a one-to-one format within families' homes to support generalization and maintenance. If training was delivered in groups, most studies reported small groups with four to five parents that often lasted 30 to 60 minutes. The authors reported that a number of studies utilized parent coaching. The coaching included supporting parents in identifying goals, child cues, and appropriate responses, instead of delivering instruction to use specific strategies. Overall, intervention effects on all outcome variables were found significantly different than zero; however, the effect sizes varied from small to medium. Particularly, interventions that focused on socialization had the highest heterogeneity, therefore suggested that moderator effects were highly possible. The findings from the meta-analysis indicate that studies with less than 20 hours of parent training on socialization and communication were correlated with small treatment effects.

Limitations of current literature

In summary, limitations of the current literature can be described as two-fold: (1) limitations within the literature on social-emotional curricula for young children with disabilities and (2) parent-training and coaching practices in EI/ECSE. The reviews mentioned in the literature review section indicate that there is a relative lack of social-emotional curricula for young children with disabilities or at-risk, within natural environments (i.e., home setting). The majority of interventions developed for young children appear to be implemented in preschool and kindergarten settings. Therefore, the change agents are most commonly teachers. However, given the importance of family involvement and the characteristics of early intervention, parents of young children should be supported in implementing interventions at home or in community settings for meaningful outcomes. Moreover, early interventionists are a critical part of providing EI services to families and should also be supported in training parents on the use of social-emotional curricula for young children. Given the number of parent-implemented curricula in EI settings, there remains a lack of manualized interventions for early interventionist and parent use in family homes for infants and toddlers.

Along with the lack of curricula in the literature, there is also a gap in fidelity measurements in parent training and coaching studies. Although there is a considerable amount of evidence for parent-implemented challenging behavior interventions, social-communication interventions, or language interventions, there is a dearth of focus on social-emotional interventions for very young children. Moreover, there are several critical details, including the dosage of parent training, intervention required outside of training and coaching sessions, and qualifications of professionals providing parent

training and coaching for families, that still remain unclear and are valuable and logical next steps for future research to obtain the most meaningful outcomes for young children and their families.

SELECT curriculum/development/components

Social Emotional Learning in Early Childhood for Infants and Toddlers (SELECT) is the intervention component, that is under development as part of an United States Department of Education Institute for Education Sciences Goal 2 grant (Grant number: R324A150145), of a curriculum-based assessment system directly linked to the Social Emotional Assessment Measure (SEAM; see Measures). The SELECT curriculum aims to enhance young children's social-emotional development and social-emotional skills that are reported to be either a concern or a focus area for families. It emphasizes what to teach and how to teach young children with disabilities and their families who receive Part C of Individuals with Disabilities Education Act (IDEA). A unique feature of the SELECT curriculum is that it is intended to be used by early interventionists who are providing home-based EI services. With the use of evidence-based practices, early interventionists are provided guidelines to support parents to implement the SELECT intervention for infants (2 to 18 months) and toddlers (18 to 36 months).

The SELECT curriculum has several essential aspects that include: 1) the intervention is directly connected to the SEAM benchmarks on social-emotional development that are assessed to identify family concerns, priorities, and child strengths, 2) the intervention addresses functional skills within the child's natural environment, 3) the intervention targets naturally occurring parent-child interactions that will foster the child's social-emotional skills, 4) the intervention is designed to be implemented by

parents during daily routines and parent-child interactions, and 5) the intervention progress is monitored through administering the SEAM.

SELECT intervention components. The components of the intervention include intervention strategies and parent activities. There is an intervention strategy for each SEAM benchmark and these include: 1) a didactic introduction of the child benchmark with a definition and a description of the skill in relation to social-emotional learning, 2) an introduction to the parent role in supporting the specific child skills within parent-child interactions throughout the day, 3) intervention strategies for targeted child skills, 4) suggestions for how parents can embed these strategies during daily routines and activities, 5) suggestions for service providers on demonstrating the use of strategies, and 6) coaching guideline. Particularly didactic training, role-play, modeling if appropriate, immediate performance feedback, and a reflection discussion are utilized as coaching strategies. An example provider guide is presented in Appendix A.

To provide guidance for parents to implement the interventions to support their children's social-emotional development, the SELECT includes a family component. The parent sheet for each SEAM benchmark includes a short description of the benchmark, importance of the skill, items on the SEAM within the benchmark, considerations to keep in mind related to the skills, examples of strategies, and an example teaching sequence for how to use a strategy during a home routine. Teaching sequence refers to the table created for parents and service providers to identify strategies for parents to work on. The table includes a column for "try a strategy", "watch and wait for child's response" and "respond to child". Parents fill this table prior to intervention in collaboration with service providers. For each strategy, an appropriate child response and a no response

(from child) is logged in the table. Based on the responses, there are two parent responses to the child also logged in for parents' use. An example of a parent and interventionist completed table is presented in Appendix B. In addition to the family guide, multiple activities for parents to engage in the strategy use are available for each benchmark. In the activity sheets, a brief description is given on the benchmark followed by tips, ideas, and considerations to think about for specific activities. An example of a play activity for a benchmark is available in Appendix C.

Statement of study purpose

The purpose of the proposed study is to provide preliminary evidence of the effects of the SELECT intervention for parents and children with disabilities. The current investigation evaluates a short-term home-based parent training and coaching, using the SELECT intervention provider guide. Parents identified intervention goals on the SEAM and received training and coaching on specific intervention strategies to work on child target goals. The proposed study followed a feasibility study and naturalistic trials on the early intervention service providers' fidelity of implementation of the SELECT intervention. Training early interventionists to fidelity was the first step of the single-case research study and was conducted by research staff of the Institute of Educational Sciences grant that was awarded to develop the SELECT intervention. A conceptual model of the study is presented in Figure 1.

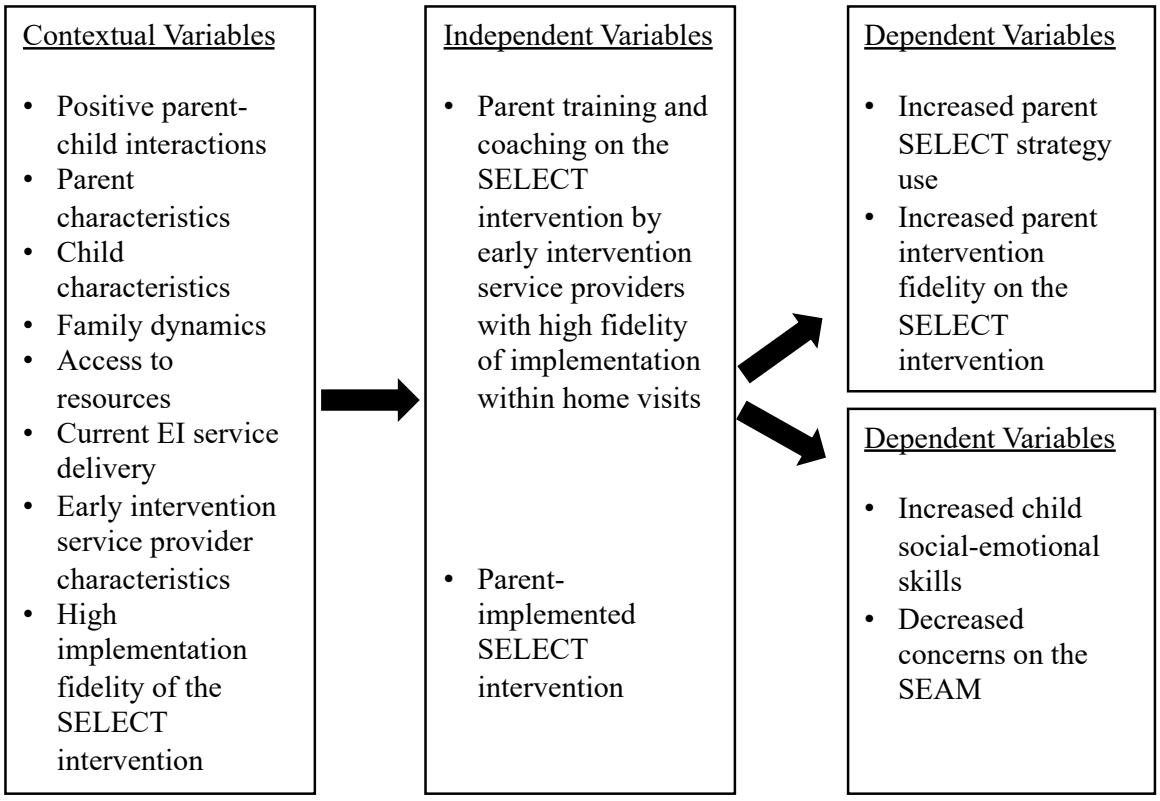


Figure 1. *Conceptual model of the proposed study.*

Research questions

Four research questions were addressed within the present experimental study:

1. Is there a functional relation between the parent training and coaching on the SELECT intervention and an increase in level of intervention fidelity of parents of young children with disabilities?
2. Is there a functional relation between the increased parent intervention fidelity and increased rate of targeted social-emotional skills of young children with disabilities?
3. Is there a functional relation between the parent training and coaching on the SELECT intervention and generalized parent fidelity of intervention across activities?

4. Is there a functional relation between generalized parent fidelity of intervention and increased generalization of child social-emotional skills across activities?

In addition, two non-experimental questions were addressed:

5. How will parents rate the acceptability and social validity of the SELECT interventions and child outcomes?
6. What is the agreement between EI/ECSE provider rated parent implementation of SELECT strategies using a global measure and the researcher examined parent implementation of SELECT strategies using a molecular measure of implementation fidelity?

CHAPTER II

METHOD

This chapter provides details of the specific methods for conducting a research study on the SELECT intervention in homes within the home-based EI services. Information about the participants, setting, materials, dependent variables, measures, data collection, data analysis and procedures are summarized. Assessment tools and data collection measures are attached in the Appendices.

Participants

Interventionists. Four early interventionists were recruited through a local birth to five early intervention agency. This agency also participated in the Part 1 feasibility study of Project SELECT. The local agency provides Part C early intervention and Part B early childhood special education services to families, infants, toddlers, and preschoolers with over 60 early interventionists. The interventionists were recruited based on the eligibility criteria: a) being employed at the EC CARES for a minimum of one year, b) having at least two years of experience in serving children with disabilities or who are at-risk, and c) having experience in administering SEAM and ASQ-SE prior to the research study. In the initial phase of the study, 4 EI service providers were recruited, trained, and coached. However, prior to the beginning of the current study, one provider wished to discontinue, due to her high workload. Therefore, the study began with 3 EI service providers.

Parent participants. Parent participants were selected by the early interventionists. The selection criteria were: a) being at least 21 years old, b) proficiency

in English and receiving Part C services in English from EC CARES related to their biological, foster, or adoptive child, and c) not having participated in a previous study related to SEAM or SELECT, as well as having no experience with SEAM or SELECT. Both mothers and fathers were eligible. See Table 2 for parent demographics.

Table 2.

Parent participant demographics

Parent	Age	Ethnicity	Education level	Income
Charlotte	30	White	High school/GED	Not enough to get by
Dana	23	White	Associate degree	Just enough to get by
Allison	37	White	Trade school	We only have to worry about money for fun or extras
Elisa	62	Latina	Associate degree	We only have to worry about money for fun or extras
Tina	33	White	High school/GED	Just enough to get by
Steph	32	White	High school/GED	Not enough to get by
Aiden	39	White	Master's degree	Just enough to get by
Melanie	32	White	Master's degree	Just enough to get by

Child participants. Child participants of the study were selected by the early interventionist from their caseloads, based on the eligibility criteria: a) receiving Part C

services from EC CARES; b) less than 32 months old at the of the recruitment by early interventionist; c) parent indicating a behavior of concern in the SEAM; d) no educational classification, medical diagnosis, or suspected autism spectrum disorders (ASD). The intervention was designed for children who fall under Tier 2 within a tiered approach and for children who have reciprocity with their parents. Therefore, due to the core symptoms of autism such as deficits in social-communication, high incidence of challenging behavior and stereotypy, and the higher level of support need, it was hypothesized that the intervention may not be appropriate for children with ASD; however, children that had a diagnosis of ASD but showed no disruptive or severe challenging behavior were eligible to participate; and e) no major sensory impairment (i.e., visual impairment or hearing impaired) or major orthopedic impairment. While the SEAM intervention may be appropriate for these populations, the required intervention adaptations may require a longer duration of intervention to obtain positive child outcomes when compared to children without these disabilities. See Table 3 for child demographics.

Participant characteristics

Charlotte and Kaiden. Charlotte was a 30 year old White female. She was married and Kaiden's biological mother. Charlotte reported their income as not enough to get by. She had her high school diploma or GED. Kaiden was a 32 month old male who was receiving EI services due to speech delay. He lives with his parents and extended family members, Kaiden did not have any siblings. Kaiden was not receiving additional services outside of the local educational agency and he communicated through gestures.

Table 3.

Child participant demographics

Child	Age	Diagnosis
Kaiden	32 months old	Speech delay
Quinn	19 months old	Speech delay
Jake	30 months old	Premature birth
Jody	27 months old	Autism
Logan	27 months old	Speech delay
Mike	28 months old	Speech delay
Sarah	25 months old	Autism
Nate	31 months old	Autism

Dana and Quinn. Dana was a 23 year old White female. She was married and had an older son who was diagnosed with ASD. In the beginning of the study, she held her associate degree and was working towards her bachelor degree, which she received during the study. Dana reported their income as just enough to get by. Quinn was a 30 month old male, living with her biological parents and older brother. He was receiving EI services due to communication delay. In the beginning of the study, Quinn did not use words to communicate, he had few gestures to get his needs met.

Allison and Jake. Allison was a 37 year old White female, who was married and had no other child in the beginning of the study. She had a trade school degree and reported their income as only having to worry about money for fun or extras. Allison had a younger daughter by the end of the study. Jake was also 30 month old male, who was born 3 months premature and was receiving EI services due to premature birth. He was

also receiving services from a local feeding clinic. In the beginning of the study, Jake was able to communicate with few words and a few gestures.

Elisa and Jody. Elisa was a 62 year old Latina female and was Jody's foster grandmother in the beginning of the study. Soon after, she became the adopting parent. She was single and had a biological son who did not live with her. She was also the adopting parent of Jody's biological older brother. She held an associate degree and reported her income as only having to worry about money for fun or extras. Jody was 27 month of age at the beginning of the study and had a diagnosis of ASD. He did not receive any other services and used few words to communicate.

Tina and Logan. Tina was a 33 year old White female. She was Logan's biological mother and was single. She reported her income as just enough to get by and held a high school diploma. She had an older son who was diagnosed with autism. Logan was a 27 month old male, who lived with his mother and older brother. He received EI services due to speech delay and did not receive any other services. He used gestures to communicate.

Steph and Mike. Steph was a 32 year old White female. She was Mike's biological parent and was married. She also had two older sons and had a high school diploma. She reported their income as not enough to get by. Mike was a 28 month old male, who received EI services due to communication delay. He received no other services. Mikes used a few words to communicate.

Aiden and Sarah. Aiden was a 39 year old White male, and Sarah's biological father. He was married and had two older sons. He held a master's degree and reported their income as just enough to get by. Sarah was a 25 month old female, who received EI

services due to speech delay in the beginning of the study. However, she received an autism diagnosis during the maintenance phase. During the study, she received no other services. Sarah had few gestures to get her needs met.

Melanie and Nate. Melanie was a 32 year old White female. She was Nate's biological mother and was married with an infant son in addition to Nate. She held a master's degree and reported the family's income as just enough to get by. Nate was a 31 month old male, who was diagnosed with autism and lived with his parents and younger brother. During the study, he received a diagnosis of hyperlexia; however, did not receive any other services. Nate used words to communicate.

Setting and materials

All sessions, including pre-assessments, baseline, intervention, and follow-up sessions, took place in families homes during a play-based activity within weekly home visits by early interventionists. Families were asked to decide which area within their homes they preferred to have sessions. The play-based activities were identified after the pre-assessments, which will be further explained, in collaboration with parents. There were no specific materials required to carry out the intervention in families' homes. Parents used the toys that they already had in their possession during all baseline sessions. During some intervention sessions, the EI service providers did bring a set of toy to work on specific goals, if needed. However, for the majority of the sessions were carried out using the toys that the family owned. Home visit sessions lasted for approximately an hour and were broken down into time segments (see intervention phase).

Dependent Variables

Interventionist behaviors. Early interventionist participants of the study received a formal training in the Part 1 pilot study and as a part of the proposed study, interventionist data were collected on implementation fidelity in two ways. First, each interventionist had an implementation fidelity checklist for each home visit. Second, the primary data collector collected data on implementation fidelity checklist during home visit sessions. There were 4 main parts on the fidelity checklists: 1) check in/follow up from last visit, 2) planning for upcoming week, 3) implementation guidance, and 4) prepare for upcoming week. Check-in/follow up included interventionist asking parents about how things went since the previous visit and a review/discuss family reflection form that was filled out during the previous visit. Planning for the upcoming week included reviewing the benchmark introduction with parent, review and discussion of relevant SELECT parent activities, and review of SELECT strategies and identification of the strategies that parents would like to try with their child. Implementation guidance covered interventionist coaching behaviors that were: 1) review the SELECT strategies that parents will try with their children, 2) describe how strategy will be implemented within the parent-child play interaction, 3) discuss possible child responses (i.e., desired behavior or other behaviors), 4) discuss contingent parent response (i.e., what parents will do following desired behavior or other behaviors), 5) verbally prompt parents to try the strategies if parents do not try every other minute, 6) provide immediate feedback with verbal praise contingent on appropriate behavior, 7) provide constructive feedback if parent misses an opportunity to implement the strategies, and 8) model the use of strategy. In collaboration with the interventionists, modeling was not necessarily included as a coaching component, based on the targeted child behavior.

Child behaviors. Once the early interventionist completed the SEAM with parents, data were collected on a number of child behaviors identified from benchmarks of the SEAM during each experimental phase. Target behavior were operationally defined for each participating child based on the SEAM Benchmarks. SEAM toddler behaviors include: (a) spontaneous social communication acts (e.g., requesting, responding to communication, commenting on objects), (b) prompted social communication acts (e.g., requesting, responding to communication, commenting on objects), (c) engagement in play or during the target play activity, (d) verbal identification and commenting on a range of emotions, (e) initiate and respond to joint attention and engage in joint engagement, and (f) following daily routines and simple instructions. Once the target behaviors for infants and toddlers were identified by interventionists and parents, they were further operationally defined and examples and non-examples were developed. For example, if parent expressed concern for the benchmark "5.2. Toddler focuses on events that you show him", and if the benchmark was identified as intervention target, then this behavior was operationally defined as "toddler shifts eye gaze with turned head or torso with at least 45 degree angle towards an object or event pointed out by parent and remains eye gaze for a minimum of 2 seconds." Specific behaviors that were targeted for each child participant is presented in Table 4.

Parent behaviors. Parent behaviors were identified and operationally defined based on the SEAM and child intervention target goals. Data on parent behaviors were collected within the teaching sequence (i.e., try a strategy, watch and wait for child's response, respond to child). For example, for the SEAM benchmark 5.0 (Toddler shared attention and engages with others), example parent behaviors were operationally defined

Table 4.

Target behaviors and operational definitions for child participants.

Participant	Goal 1	Operational definition	Goal 2	Operational definition
Kaiden	Identifies himself on the mirror or picture.	Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror.	Plays with caregiver	Child engages in reciprocal play with caregiver by imitating caregiver's play actions, taking turns, or visually attending to caregiver during play.
Quinn	Makes eye contact with caregivers	Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second.	Plays with caregiver	Child engages in reciprocal play with caregiver by imitating caregiver's play actions, taking turns, or visually attending to caregiver during play.
Jake	Follows simple direction	Child follows directions by engaging in the behavior that was asked by caregiver within 5 seconds following the direction.	Initiates communication	Child uses a gesture (finger point) or sign to request an item while making eye contact with the caregiver who has access to the item.

Table 4 (Cont)

Participant	Goal 1	Operational definition	Goal 2	Operational definition
Jody	Focuses on events that caregiver shows him	Child moves the head or torso to shift the eye gaze towards an item or event pointed out by parent for at least 2 seconds.	Identifies himself on the mirror or picture.	Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror.
Logan	Attends to book for at least 5 minutes	Child looks at the book, listens to caregiver while remaining eye gaze on the book or holding the book and turning the pages.	Initiates communication	Child asks for a specific item during play with verbal request or approximations along with eye contact with the caregiver who has access to the items.
Mike	Identifies emotions	Child verbally labels own emotions such as “happy”, “sad”, “mad”, or points to a picture that matches his emotions when asked “how are you feeling?” on a book or pieces with faces on.	Requests help, comfort, or attention from caregiver	Child verbally requests for what he needs, may say “help”, “go”, “more”, “hug”, etc.

Table 4 (Cont)

Participant	Goal 1	Operational definition	Goal 2	Operational definition
Sarah	Makes eye contact with caregivers	Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second.	Identifies herself on the mirror or picture	Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror.
Nate	Identifies himself on the mirror or picture	Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror.	Initiates communication	Child verbally requests and activity to continue or an item, may say "I want more", "go again", "jellybeans please".

as following: 1) parent calls child's name to get the child attention, 2) parent waits 3 to 5 seconds for child to respond, 3) parent immediately responds to child's response by providing praise (e.g., verbal praise, social praise), and 4) if the child does not respond, parent repeats by starting a new trial in which she/he calls child's name. Another example of parent behavior for the same benchmark can be defined as: 1)parent points out people, objects, or events in the environment to help draw child's attention, 2) parent waits for child to respond 3 to 5 seconds, 3) parent immediately responds to child's response by providing praise (e.g., verbal praise, social praise), and 4) if the child does not respond, parent starts a new trial by pointing out a person, event, or object in the same environment.

Specific intervention strategies packaged for both child behaviors are presented in Table 5. In addition, individualized tables with both parent and child behaviors' operational definitions are presented in Appendix D.

Measurements

Social-Emotional Assessment Measurement. The SEAM (Squires, 2014) is an assessment measure that focuses on the social-emotional and behavioral development of young children. The tool is developed to assess infants (2-18 months), toddlers (18-36 months), and preschoolers (36-66 months) with delays or at-risk. SEAM has two main parts: child profile and family profile for each age range. Child profile assesses 10benchmarks that are essential to social-emotional competence such as empathy, adaptive skills, self-image, emotional responses, and healthy interactions. For example, benchmarks on the toddler interval includes: 1) toddler participates in healthy interaction, 2) toddler expresses a range of emotions, 3) toddler regulates her social emotional

Table 5.

Packaged intervention strategies for parents.

Participants	Strategies for goal 1	Strategies for goal 2
Charlotte	Simple choices, that's you, show child how	Make it a game, copy child, piece by piece
Dana	Pause the action, try something exciting or new, call on child	Make it a game, pause the action, point and talk about it
Allison	Keep it simple, simple choices, first/then	Ask and wait, simple choices, show child how
Elisa	Point and talk about it, gentle touch, help child see	Simple choices, that's you, show child how
Tina	Point and talk about it, exaggerate, first/then	Piece by piece, simple choices, show child how
Steph	Book time, pretend play, simple choices	Ask and wait, offer and wait, show child how
Aiden	Pause the action, try something exciting or new, call on child	Simple choices, that's you, show child how
Melanie	Simple choices, that's you, show child how	Ask and wait, simple choices, show child how

responses, 4) toddler begins to show empathy for others, 5) toddler shares attention and engages with others, 6) toddler demonstrates independence, 7) toddler displays a positive self-image, 8) toddler regulates his attention and activity level, 9) toddler cooperates with daily routines and requests, and 10) toddler shows a range of adaptive skills. Each of these benchmarks has multiple behaviors/items. The instrument can be completed by parents or practitioners with four scoring options: not true (i.e., 0% of the opportunities), rarely true (i.e., 1-25% of opportunities), somewhat true (i.e., 25-75% of opportunities), and very true (i.e., 75-100% of opportunities). Parents can also check the "this is a

concern" box or "intervention goal" box to indicate their needs and priorities for intervention on specific items. A total sample of 2201 SEAMs was analyzed for psychometric properties of the tool and significant Pearson's correlation coefficients (r = .776, p <.01) for Infant Interval and Toddler Intervals (r = .948, p <.01) were found. The standardized Cronbach's alpha for the Infant Interval (〈= .90), Toddler Interval (〈= .91), and Preschool Interval (〈= .96) indicate strong internal consistency of the SEAM. Concurrent validity of the instrument was also examined by comparing with the Devereux Early Childhood Assessment Infant-Toddler, Infant Toddler Social Emotional Assessment, and Ages & Stages Questionnaires®: Social-Emotional. The SEAM toddler interval is presented in Appendix E.

Social validity. Caregivers' perceptions of the goals, procedures, and outcomes of the intervention were measured using an adapted version of the Treatment Acceptability Rating Form-Revised (TARF-R; Reimers et al., 1987) at the end of the intervention phase. The form includes questions about family's perceptions of the acceptability, feasibility, and utility of intervention targets, intervention procedures, and outcomes. The TARF-R that was completed by parents is included in Appendix F.

Data Collection and Inter-observer Agreement (IOA)

A molecular coding approach was employed for measurement of caregiver and child behavior (e.g., frequency, count of strategy use, child frequency of communication attempts). For continuous behaviors (e.g., attending to book) data were collected within 30 second whole intervals. Data collection required a video camera and a trained data collector collected all data through video recording and a second trained data collector collected data for at least 20% of the sessions for IOA. The data collector was present at

all sessions to video record the sessions. Following the sessions, data collection occurred with pen on paper data sheets through these session videos, for parent and child behaviors. A secondary data collectors was trained to collect IOA data, using the same data sheets and video examples from one recorded session. The training approximately lasted for an hour and included parent and child behavior in all experimental phase. The data collectors practiced data collection and compared codings. In case of discrepancies and disagreements, recoding occurred along with a discussion until at least 80% agreement is reached. IOA data were collected for at least 20% of the experimental sessions to meet What Works Clearinghouse (WWC) design standards (Kratochwill et al., 2010). IOA was calculated with a total agreement IOA approach, meaning that it was calculated by dividing the smaller total count observed by the larger total count between the two observers. See Appendices G and H for data sheets that were used for interventionists, parents, and children.

For all participants, IOA was collected through videos by a trained independent observer. IOA was calculated for 20% of the baseline sessions and 20% of the intervention sessions for both dependent variables for child and parent participants. These scores are presented in Tables 6 and 7.

Experimental design and data analysis

Two independent single-case, multiple baseline designs across 8 parent-child dyads were used to evaluate the effects of the SELECT intervention on target caregiver and child behavior (Cooper, Heron, & Heward, 2007; Gast, Lloyd, & Ledford, 2014). Single-case research design is a specific methodology that is commonly used to investigate whether a functional relation exists between an independent variable that is

Table 6.

IOA for parent participants

Participant	*M*	Range
Charlotte		
Dependent variable 1	99	99-100
Dependent variable 2	95	90-100
Dana		
Dependent variable 1	98	96-99
Dependent variable 2	88	79-97
Allison		
Dependent variable 1	96	86-100
Dependent variable 2	94	82-100
Elisa		
Dependent variable 1	80	71-88
Dependent variable 2	94	81-100
Tina		
Dependent variable 1	81	72-100
Dependent variable 2	89	79-100
Steph		
Dependent variable 1	94	87-100
Dependent variable 2	90	85-95
Aiden		
Dependent variable 1	96	89-100
Dependent variable 2	90	75-100
Melanie		
Dependent variable 1	89	80-100
Dependent variable 2	87	80-100

Table 7.

IOA for child participants

Participant	*M*	Range
Kaiden		
Dependent variable 1	84	81-88
Dependent variable 2	93	99-100
Quinn		
Dependent variable 1	88	83-92
Dependent variable 2	81	80-82
Jake		
Dependent variable 1	93	88-98
Dependent variable 2	98	92-100
Jody		
Dependent variable 1	88	83-100
Dependent variable 2	90	60-100
Logan		
Dependent variable 1	86	78-91
Dependent variable 2	86	78-100
Mike		
Dependent variable 1	90	80-100
Dependent variable 2	86	85-86
Sarah		
Dependent variable 1	89	67-100
Dependent variable 2	92	75-100
Nate		
Dependent variable 1	85	60-100
Dependent variable 2	92	75-100

actively manipulated and one or more dependent variables that are repeatedly measured. A multiple baseline design was chosen to be the most appropriate design amongst other types of single-case research designs (e.g., multiple probe, reversal design, alternating treatment design) for several reasons. First, a reversal design is not appropriate for behaviors that cannot be reversed as a result of withdrawn intervention and then put in place following a second baseline phase. Second, multiple baseline design is relevant for demonstrating at least three basic across participant dyads while controlling for internal validity such as maturation or history (Ledford & Gast, 2009). The study has three experimental phases: baseline, SELECT intervention, and follow up.

To determine the order of the dyads and to stagger intervention across parent-child dyads, a double randomization procedure was administered. Randomization is defined as "a statistical test for which the significance of experimental results is determined by permuting the data repeatedly to compute *t*, *F*, or some other test statistics is called a randomization test" (Edgington, 1987; p. 8). Although there are four types of randomization tests proposed for single-case research design (i.e., phase/intervention randomization within cases, intervention randomization between cases, intervention start-point randomization, and case randomization; Levin, Farron, Gafurov, 2014), only three these types are appropriate for multiple baseline designs. These include case randomization in which the dyads are randomly assigned to positions within the design, intervention start-point randomization which refers to randomly assigning a point for intervention to start, and phase randomization which refers to randomizing the order of baseline and intervention phases for each dyad. In this proposed study, case randomization and intervention start-point randomization were utilized, using an Excel

macro application, ExPRT (Levin, Ferron, & Gafurov, 2014). The use of randomization has several advantages such as increasing the internal validity of the study and this occurs by decreasing Type I error. This then allows for greater statistical inferences by allowing the calculation of a standardized effect size (Kratochwill & Levin, 2010). In the proposed study, each parent-child dyad was randomized to a position (i.e., tiers within multiple baselines) and an intervention start point. Based on the intervention start point randomization, the first tier of dyads were assigned to five baseline data points, second tier of dyads were assigned to seven baseline data points, and the third and fourth dyads were assigned to 10 baseline data points.

Once the first dyad began intervention and the randomized number of baseline data points were collected for second dyad, the second dyad also began intervention. The same approach was taken for the second multiple probe. Treatment was staggered across participants, two dyads at a time, with a minimum of a week worth of data points. It was hypothesized that the SELECT intervention would have a functional and causal relation with increased parent intervention fidelity and increased child social-emotional competence and pro-social behaviors. Related to social-emotional competence, it was also hypothesized that child challenging behavior would decrease and early social-communication skills would increase. However, a more distal reduction in challenging behavior was hypothesized due to the low dose and intensity of the intervention.

Data collected throughout the proposed study were analyzed using visual analysis of single-case research design data (Kratochwill et al, 2010). Visual analysis is the main approach to analyze single-case research design data that has well-established guidelines for analyzing graphed line data. Graphed data of single-case designed are assessed using

within and between phase data patterns: 1) level, 2) trend, 3) variability, 4) immediacy of effect, 5) overlap, and 6) consistency of data patterns across similar phases (Kratochwill et al., 2010). First, level refers to the mean score of data points in each phase. Second, trend means the slope of the best-fitting straight line of all data points in each phase. Third, variability refers to the deviation of data points in phases from the best-fitting line. Fourth, immediacy of effect can be explained by immediate increase or decrease within three points following a phase change. Fifth, overlap refers to the data points that overlap with data points in previous phases. And finally, consistency across similar phases refers to examining the demonstration of basic effect between same conditions. For example basic effects between baseline and intervention phases for all of the eight dyads in the proposed study should indicate an increase following introducing the SELECT intervention. In addition to these features, vertical analysis of data was conducted. Vertical analysis of single-case data refers to assessing any changes in level and trend of a dyad when the previous dyad started receiving intervention.

In addition to visual analysis, a nonparametric non-overlap analysis, Non-overlap of All Pairs (NAP), was utilized as supplementary analysis to visual analysis. Non-parametric non-overlap indices have advantages such as not relying on means, medians, or modes of data but instead individual values of all data points in pairwise comparison across phases (Kratochwill & Levin, 2014). Moreover, they are easily interpretable compared to parametric methods and are confirmable with visual analysis (Parker & Vannest, 2009). On the other hand, some disadvantages of non-parametric non-overlap indices include lack of account for trend in experimental phases and baseline trends in particular, and relatively lower statistical power. NAP is the percentage of all pairwise

comparisons across baseline and intervention phases and can be interpreted as improvement across experimental phases (Parker & Vannest, 2009) and does not provide an effect size or magnitude of effect between phases. NAP was calculated for the current study due to its advantages in relation to other non-parametric non-overlap metrics. NAP provides more data comparisons than other non-overlap indices such as Percent of Non-overlapping Data (PND), therefore, it is powerful with superior precision. NAP is strongly correlated to a parametric single-case data analysis method, R^2 (Parker & Vannnest, 2009), is sensitive to autocorrelation and can be directly interpreted. This score can also be interpreted with the *p* value that is provided by the online calculation. NAP scores of .56, .63, and .70 indicates small, medium, and large treatment effects (Parker & Vannest, 2009). Some of the limitations of NAP includes insensitivity to trend along with inflated NAP scored as a result of linear trend. NAP was calculated using an online on a single case research free calculator (http://www.singlecaseresearch.org/calculators/nap). The data were analyzed separately for each dyad in the study by entering raw scores in the online calculator. Then the phases were contrasted to obtain a NAP score. The calculator also provides a *z*-score and a *p* value of the non-overlapping data points within the phases.

Furthermore, Generalized Least Squares (GLS) regression model (Kratochwill et al., 2010), a parametric regression-based technique, was utilized to address limitations of NAP and other non-parametric methods. GLS is used to model autocorrelation of data points and estimate regression parameters to obtain an effect size, and magnitude of treatment effects across experimental phases (Maggin, Swaminathan, Rogers, O'Keeffe, Sugai, & Horner, 2011). Regression models such as GLS have several advantages. First,

unlike non-parametric methods, they produce an effect size and the effect sizes can be converted into other effect sizes to compare with effect sizes obtained from group studies (e.g., Cohen's *d*). Second, it is relatively easy to evaluate power and create confidence intervals around effect sizes through regression methods. Third, GLS, like other regression models, is sensitive to trends, in that if there is an increasing trend in baseline or intervention phases, GLS takes the trend into account while producing an effect size. Finally, GLS also accounts for autocorrelation, which is the extent to which a data point varies from previous data points. Limitations of GLS includes too low or excessively high values due to the sample size of single-case research studies and moderately low correlation with judgments of visual analysis of graphed data (Maggin et al., 2011). GLS analyses for each dyad were conducted through a software program, SINGSUB. To analyze data on SINGSUB, each data point was entered in an input file in a specific format. Once the input file was moved into the software, a "run" command was created. The output files contained differences between phases for each participant, standardized effects, a *t*-value, a *p*-value, and autocorrelation as well as intercepts and slopes of each participant.

Procedures

Interventionist training. A naturalistic trial of the SELECT intervention was conducted prior to the proposed study by the SELECT project research staff. The aim of this pilot study was to train and coach the interventionist to high fidelity to train and coach parents. The pilot began with training interventionists in the administration of the SEAM and the implementation of the SELECT intervention with families that met the criteria that were mentioned above. The interventionists first received formal training that

will be explained in detail, then selected two parent-child dyads to implement the intervention. These parent-child dyads did not participate in the single-case study.

The interventionist training occurred at the main building of the local educational agency. The SELECT Project manager and staff provided the training in two parts and both part lasted for two hours. The first part of the training included: a) introductions within the early interventionists and research staff, b) background of the importance of social-emotional skills, c) development and components of the SEAM, d) an activity with a completed toddler SEAM interval that required close examination of the benchmarks and family profile, e) a discussion activity of the completed SEAM, f) an introduction of the SELECT project, g) expectations from the interventionists, h) aims of the study, i) explanation of the participant selection criteria, and j) descriptions of the recruitment flyer and consent forms for the parents. The training was followed by questions for approximately 10 mins.

The second part of the training included: a) introducing the SELECT intervention, b) describing the SELECT components (i.e., SELECT interview, benchmark introduction, coaching checklist, SELECT activities, keep in mind handouts, home visit notes, and family reflection form), and c) coaching process. Interventionists were provided with the SELECT components as resources to support families prior to coaching. Following descriptions of each resource, interventionists were trained on how to prepare for coaching. This part included how to introduce benchmarks to families with example statements and how to encourage parents to look over the benchmark introductions prior to home visits and was followed by training on how to coach parents. During this part of the training, researchers emphasized checking in with the parents and

following up about their last home visits with example statements. Then interventionists were trained on the first time they select target skills with parents. This part included helping parents to identify strategies and activities to use the strategies outside of coaching sessions within the initial home visit. Once the target skills and strategies were selected in collaboration with the primary researcher, the coaching components were explained to interventionists in detail starting with Try-Wait-Respond sequence. The researchers gave completed examples of this teaching sequence and provided suggestions for how to complete the table in alignment with the target skills and intervention strategies. Then the coaching components that were used within the present study were provided for interventionists (i.e., verbal prompt to try the strategy, modeling or role play, and immediate feedback). The components were explained with examples. For instance, providing verbal prompt example was "Why don't you try the strategy with Maria? I will be here to support you" or "Remember to watch for her reaction and respond to her". An example of providing verbal praise immediately following parent correct use of strategy was "You did a really nice job letting her choose how she wants help. Look how excited she is to be helping." A modeling example was "Would you feel more comfortable having me model the strategy with Maria before you try it? I can also model it with you if you prefer that way." Once coaching components were provided, the interventionists were trained on checking in with them at the end of the session. The examples of reviewing and planning for next home visit included "Did that strategy seem comfortable for you to use?" and "Does this seem like something you could do with her throughout the day?" The researchers also highlighted asking parents whether they have any questions and then closing the home visit by assuring support in between visit if parents

need to check in. At the end of the interventionist training, the researchers answered questions about the covered content.

Baseline. Following the pre-assessment, target behaviors were identified and the baseline phase began. Twice a week baseline sessions lasted for 10 to 15 minutes throughout the phase without the interventionists present. Because the interventionists provided home visits once a week, only the primary researcher was present during the baseline sessions to decrease the amount of time participants spent in baseline phase. The researcher told parents to interact with their child as they normally do. Parents received no training, instructions, or feedback during baseline home visits. Interventionist, parent, and child data were repeatedly measured during each session until the at least 5 data points were collected. Due to the nature of multiple baseline designs, the length of baseline phase for each dyad varied. For dyads 1 and 5 baseline ranged from 2 to 3 weeks, 3 to 5 weeks for dyads 2 and 6, 5 to 7 weeks for dyads 3, 4, 7, and 8.

Intervention. Following the baseline phase, the intervention phase began and lasted approximately for 12 weeks. The SELECT intervention sessions lasted for 30 to 60 minutes with multiple components. The first component was the early interventionist providing a 10-15 minute didactic parent training during a home visit. Second, following the training within each session, a 15 to 30 minute coaching component was implemented. During the intervention condition, early interventionists had a discussion about the SEAM that were completed by parents to identify parents' concerns. The benchmarks that were parent concerns were then mapped onto the SELECT intervention as target behaviors. The interventionist and parent had another parent-driven discussion to identify parent-child activities and to identify the context of dyad interactions for

intervention sessions. Once the parent concerns were discussed with the interventionist, the primary researcher packaged appropriate intervention strategies with the interventionists' input. Each packaged intervention included at least two active ingredients to assure optimal increases in target child behavior. Task analyses of each of the strategies were created. The 60 minute intervention sessions started with interventionists greeting the family checking in about their week for 15 minutes. Then the interventionist provided a 10 to 15 minute didactic training that involved: a) background information of the SEAM benchmark, b) provide a rationale for the benchmark that is targeted, c) explain what strategies the parents will be implementing, and d) discuss and complete the teaching sequence (i.e., try something new- wait and watch- respond cycle) with parents. Following the didactic training, coaching was provided during a 15 to 30 minute parent-child play/interaction. Coaching components included: a) interventionists prompt for parents to try the selected intervention strategy with their child, b) interventionist modeling the intervention strategy with the child or role playing with the parent, c) immediate performance feedback contingent on appropriate parent behavior in the form of verbal praise. First, in the beginning of the coaching session, interventionist asked parents to play with their child and use the strategies when appropriate. If the parents missed opportunities to implement the strategies, the interventionist prompted the use. For example, "I noticed that he was interested in the ball, you might follow his lead by engaging in playing with the ball as well. Let's try that by joining his play." If the parents continually did not implement the strategies, the interventionist then said "It has been a couple minute since the last time you implemented the strategy, let's give a try to use the strategy every other minute". Second, the interventionist modeled the use of the

strategy with either the child or the parent and give a turn to the parents to role play the use of strategy with either the interventionist or the child. Third, once the parent used the strategy correctly, the interventionist provided positive feedback with verbal praise. For instance, “That was a really nice job of gaining his attention by pointing to the toy! You are doing great!”

The last 15 minute of home visits included interventionist and parent review of the session in terms of what went well, and what is on the agenda for the next home visit.

Generalization. At the end of each intervention session, during the 15 minute session review, parents were encouraged to continue the use of the strategies during other daily parent-child routines and activities and videotape an activity or routine outside of weekly home visits that lasted for at least 3 minutes. Parents were provided with flip video cameras and tripods. Parents identified these activities or routines with support from the interventionists; however, no coaching or feedback were provided for those sessions. For example, during the week, parents could choose to implement intervention strategies during snack or meal time while recording a video of a 3 to 10 minutes meal time. Parents were reminded that it was important to see both the parents’ and children’s faces in the video. Once the parents recorded multiple videos, the researcher gathered the video cameras and provided another video camera with new batteries and available space. Videos were gathered from seven of the eight families and were watched for data collection. However, the number, quality, and length of these videos did not allow data collection for experimental purposes.

Follow-up. Once the intervention phase ends, interventionists re-administered the measures that were explained earlier (See measures) as post-measures. Three and 6

weeks after the post-assessment, a follow-up assessment occurred with the same measurements. In addition, follow-up home visits occurred 3 and 6 weeks post-treatment. The observation data were collected by the researcher through videos and parents were prompted implement the strategies during these home visits.

CHAPTER III

RESULTS

This chapter describes the results of the study and details (a) results of the parents' treatment fidelity of SELECT intervention strategies, (b) results of child responses to SELECT intervention, (c) results of the NAP, non-overlap effect size indicator for single-case data, (d) statistical analysis of the single-case data using GLS method, and (e) social validity ratings of parents.

Results of parents' treatment fidelity of SELECT intervention strategies

Data of parents' treatment fidelity was collected to answer the research question, "Is there a functional relation between the parent training and coaching on the SELECT intervention and an increase in level of intervention fidelity of parents of young children with disabilities?" A concurrent and nonconcurrent multiple baseline across parent-child dyads were used to answer this research question. The first multiple baseline was concurrent and the second multiple baseline was nonconcurrent due to the lengthy recruitment process. Both multiple baseline designs included four parent-child dyads.

Charlotte. The SELECT intervention strategies for Charlotte targeted Kaiden's increased identification of himself in the mirror or in the pictures and increased amount of time playing with Charlotte. For the first goal, Charlotte's use of strategies during baseline was mostly at zero levels with a mean of 5% with a range of zero to 25% of targeted strategies. Her baseline data points indicated low variability and no counter therapeutic trend. Following intervention, Charlotte's data showed an immediate change in level and demonstrated an increasing trend throughout the intervention phase with a moderate level of variability. However, there were no overlapping data points between

the baseline and intervention phases. Charlotte's mean use of targeted intervention strategies during intervention was 82% with a range of 56 to 100% of strategies implemented. Post intervention data points remained at higher levels than baseline and within the range of intervention data points. For Kaiden's second goal, Charlotte's use of strategies were at zero levels throughout the baseline sessions with no trend. Following intervention, her data showed an immediate change in level with an increasing trend and low variability. In addition, there was no overlapping data points between baseline and intervention phases. Charlotte's mean during intervention phase was 91% with a range of 82 to100%. Upon completion of intervention phase, her three and six weeks maintenance data points remained at high levels within the range of her data in intervention.

Dana. The SELECT intervention strategies that Dana received coaching on targeted Quinn's increased eye contact with Dana and increased amount of time playing with Dana. For the first set of intervention strategies, Dana's baseline data showed high variability with a slight decreasing trend. Her mean during baseline phase was 52% with a range of 25 to 89%. Following intervention, there was an immediate increase with an increase in level and increasing trend, although there were overlapping data points between baseline and intervention phases. Variability of Dana's data points decreased and were more stable throughout the phase. During intervention phase, her mean was 82% with a range of 70 to 99%. Dana's post intervention data points showed a slight decrease; however, remained at high levels of fidelity. For the second set of intervention strategies that targeted amount of time Quinn engaging in play activities with Dana, data showed high variability and during baseline, there was an increasing non-therapeutic trend with a mean of 55% and a range of zero to 93%. However, following intervention,

her data points became stable and remained at high levels. Her mean during intervention was 92% with a range of 85 to 97%. Three and six week post-intervention data points show that Dana's fidelity remained at high levels with a slight decrease.

Allison. The SELECT intervention strategies that were packaged for Allison targeted Jake's skills to follow simple directions and increased initiating communication. For the first packaged intervention, Allison's baseline data showed highly variable data points with a non-therapeutic increasing baseline trend. Her data points had a mean of 24% with a range of zero to 50%. Following intervention, her data points showed an immediate increase with less variability and remained at higher levels than baseline phase. There was no overlapping data points between two phases. Allison's mean in the intervention phase was 83% with a range of 77 to 90%. Thereafter, Allison's three and six weeks post-intervention data points remained at high levels. For the second packaged intervention, Allison's data points showed a decreasing trend with moderate variability. Her mean fidelity in baseline was 16% with a range of zero to 50%. Following intervention, Allison's data points immediately increased to higher levels with an increasing trend and less variability. There was no overlapping data points between the two adjacent phases. Allison's mean fidelity in intervention phase was 67% with a range of 55 to 82%. Finally, Allison's post-intervention data points for the second set of intervention strategies remained at high levels.

Elisa. The last participant in the first multiple baseline was Elisa and her intervention strategies targeted increased attention towards events and objects and increased identification of self on the mirror or pictures. For the first set of SELECT intervention strategies, Elisa's baseline data was mildly variable with a mean of 38% and

a range of 27 to 47%. Once Elisa began receiving coaching on the use of strategies, her data points immediately increased to higher levels with an increasing trend; however, remained variable. Her data points showed no overlap. During the intervention phase, Elisa's mean fidelity was 85% with a range of 58 to 100%. Post-intervention data points for the intervention strategies remained at high levels. For the use of intervention strategies to increase Jake's second target goal, Elisa's baseline data points showed no use of intervention strategies. During baseline, Elisa's mean fidelity was zero. However, once intervention phase began, Elisa's data points immediate increased to high levels and her data points were stable throughout the phase. The mean fidelity while Elisa received coaching was 82% with a range of 73 to 96%. Her data point during the three weeks post-intervention session remained at high level; however, during the six weeks post-intervention session, her fidelity decreased to 0% due to no use of strategies. See Figure 2 for the graphs of these parent participants.

Tina. Tina received training on SELECT intervention strategies to target Logan's requests and attending to book reading for at least 5 minutes. For Logan's requests, Tina's fidelity during baseline at zero across all sessions. However, once the intervention began, Tina's fidelity of implementation immediately increased to higher levels and remained stable at higher level. Her mean fidelity across intervention sessions was 90% with a range of 79 to 100%. During the three and six weeks post-intervention sessions, her fidelity decreased, yet, remained at higher levels than initial baseline level. For the second target, attending to book for at least 5 minutes, Tina's fidelity during baseline was low. Although her fidelity was relatively higher in the first session, data pattern show a decreasing trend with a mean of 5% and a range of zero to 25%. Once Tina began

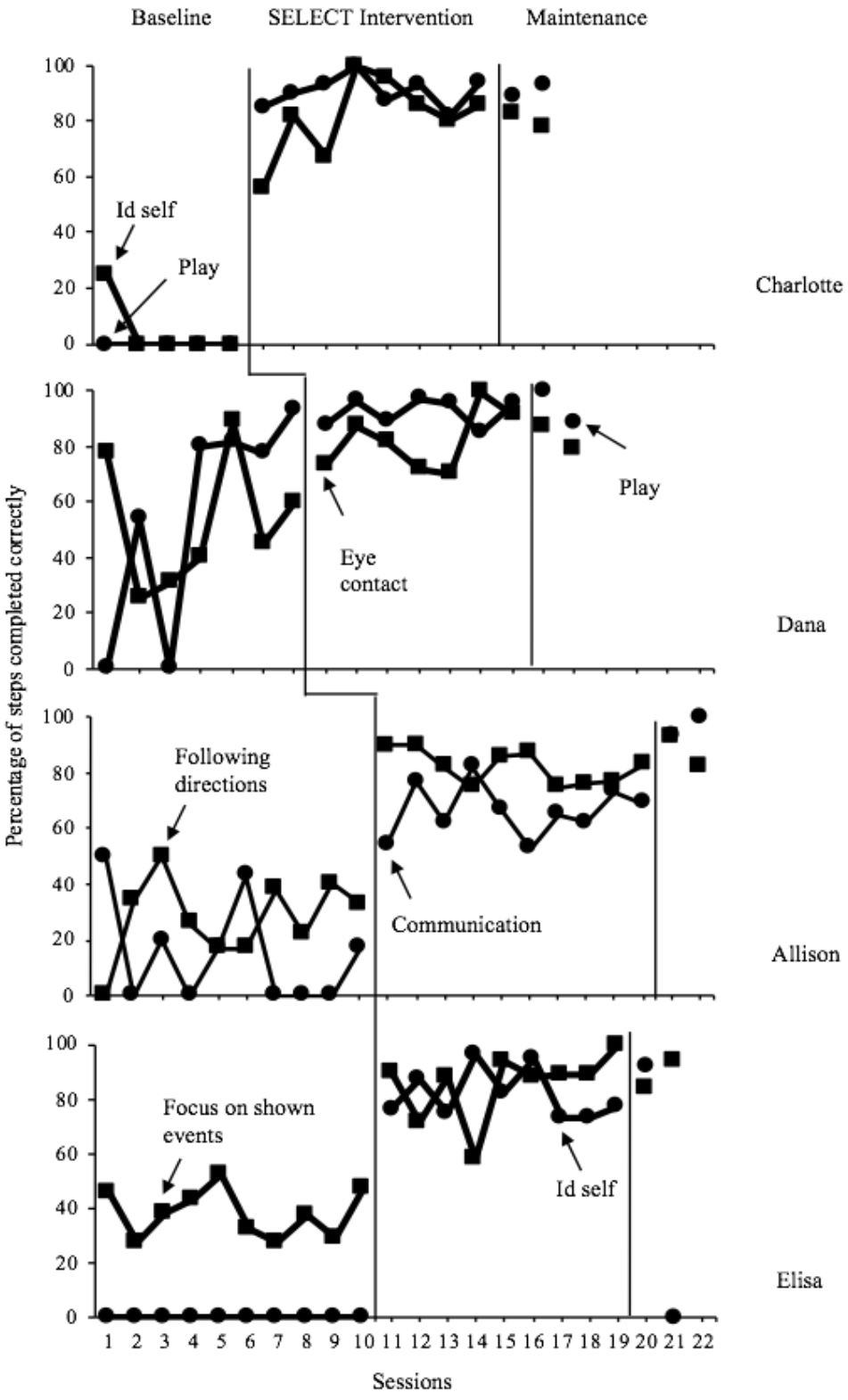


Figure 2. This graph represents data of parent participants in the first multiple baseline design.

receiving coaching, her fidelity increased immediately with no overlapping data points. Her data show an increased level and an increasing trend that remained stable at 100% fidelity. There was no overlap between the intervention and baseline phases. Tina's mean fidelity during intervention was 86% with a range of 59 to 100%. Although her fidelity while using the strategies during three and six weeks post-intervention sessions decreased, these data points were still at higher level than her fidelity in the baseline phase.

Steph. Steph's targets that she identified for Mike were identifying emotions and requesting help, attention, and comfort. For the strategies selected for identifying emotions, Steph had zero fidelity during baseline across all sessions. As soon as intervention began, her fidelity increased to higher levels and remained at higher levels with no overlapping data points observed. Steph's mean fidelity during intervention was 93% with a range of 82 to 97%. During the three weeks post-intervention session, Steph's fidelity was at high level; however, during the six weeks post-intervention session, Steph did not use any strategies that she received coaching for. Therefore, her fidelity decreased to zero For the other set of strategies that targeted Mike's requests for help, attention, and comfort, Steph's baseline data points indicated 0% fidelity across all sessions. After the first intervention session, her fidelity increased to higher levels with low variability. There was one overlapping data point between this phase and baseline. The mean fidelity during this phase was 75% with a range of zero to 100%. Steph and her early intervention service provider did not have time to focus on this goal during the session. Therefore, the fidelity data were collected as zero for this first session. During maintenance sessions, Steph's fidelity was at higher levels.

Aiden. Aiden identified "making eye contact with caregivers" and "identifying herself on the mirror or picture" as target goals for Sarah. Therefore, he received intervention for these goals. For the first goal, making eye contact with caregivers, Aiden used no strategies that were identified during the baseline phase. Following intervention, however, his fidelity increased immediate to higher levels. Although there was no overlapping data points observed, his data points showed moderate levels of variability. The mean fidelity for Aiden during intervention was 67% with a range of 53 to 91%. Three weeks after the intervention ended, Aiden did not use any of the SELECT strategies during the post-intervention session. However, his fidelity was higher during the six weeks post-intervention session. Similar to the first goal, Aiden's baseline data points show no use of strategies for the second goal. Once Aiden started receiving intervention on the use of strategies, his fidelity immediate increased to higher level. His data pattern showed variability and a slight decreasing trend, however, there was no overlapping data points. His mean fidelity was calculated as 79% with a range of 67 to 92%. Also similar to the first goal, Aiden did not use any strategies during the three weeks maintenance session, however, his fidelity was higher during the six weeks maintenance session.

Melanie. Melanie's target goals for Nate was verbal requests and identifying himself on the mirror or picture. For Nate's requests, Melanie's baseline data points showed an increasing baseline trend. The mean fidelity was 21 with a range of zero to 63%. Melanie received coaching despite the increasing baseline trend and her fidelity increased to higher levels with a slight decreasing trend, yet only minimal overlapping data points. Her fidelity had a mean of 80% and a range of 60 to 100%. Her fidelity

remained high during maintenance sessions. For Nate's second goal, Melanie's baseline data points showed a similar pattern with high variability and increasing trend. Her mean fidelity during baseline was 19 with a range of zero to 64%. Melanie received coaching regardless of the data patterns in baseline and her fidelity immediately increased to higher levels, however, her data points slightly decreased during intervention phase with no overlapping data points. Melanie's mean fidelity was 86% with a range of 75 to 100%. During both maintenance sessions, Melanie's fidelity remained high. See Figure 3 for the graphs of these participants.

Results of child responses to SELECT intervention

Kaiden. During baseline, Kaiden had zero levels of identifying himself on the mirror or picture. Once Charlotte began using the intervention strategies, Kaiden's response to higher levels with minimal variability and increasing trend. The mean of Kaiden's responses was 3.6 with a range of 1 to 6 times of identifying himself on the mirror or picture. His intervention data points did not overlap with baseline phase. Although his responses were lower during maintenance sessions, they were still higher than baseline responding. For Kaiden's second target, during baseline, his data points showed minimal variability and low levels with 3.4% of the intervals during which he engaged in play with his caregiver, with a range of zero to 9%. Once intervention began, the percent of intervals of Kaiden engaging in play immediately increased. Although data showed there was variability, there was also an increase in level, increasing trend, and no overlapping data points. The mean percent of intervals with engagement in play with caregiver was 33% with a range of 12 to 73%. During maintenance, this percentage decreased, however, remained higher than baseline.

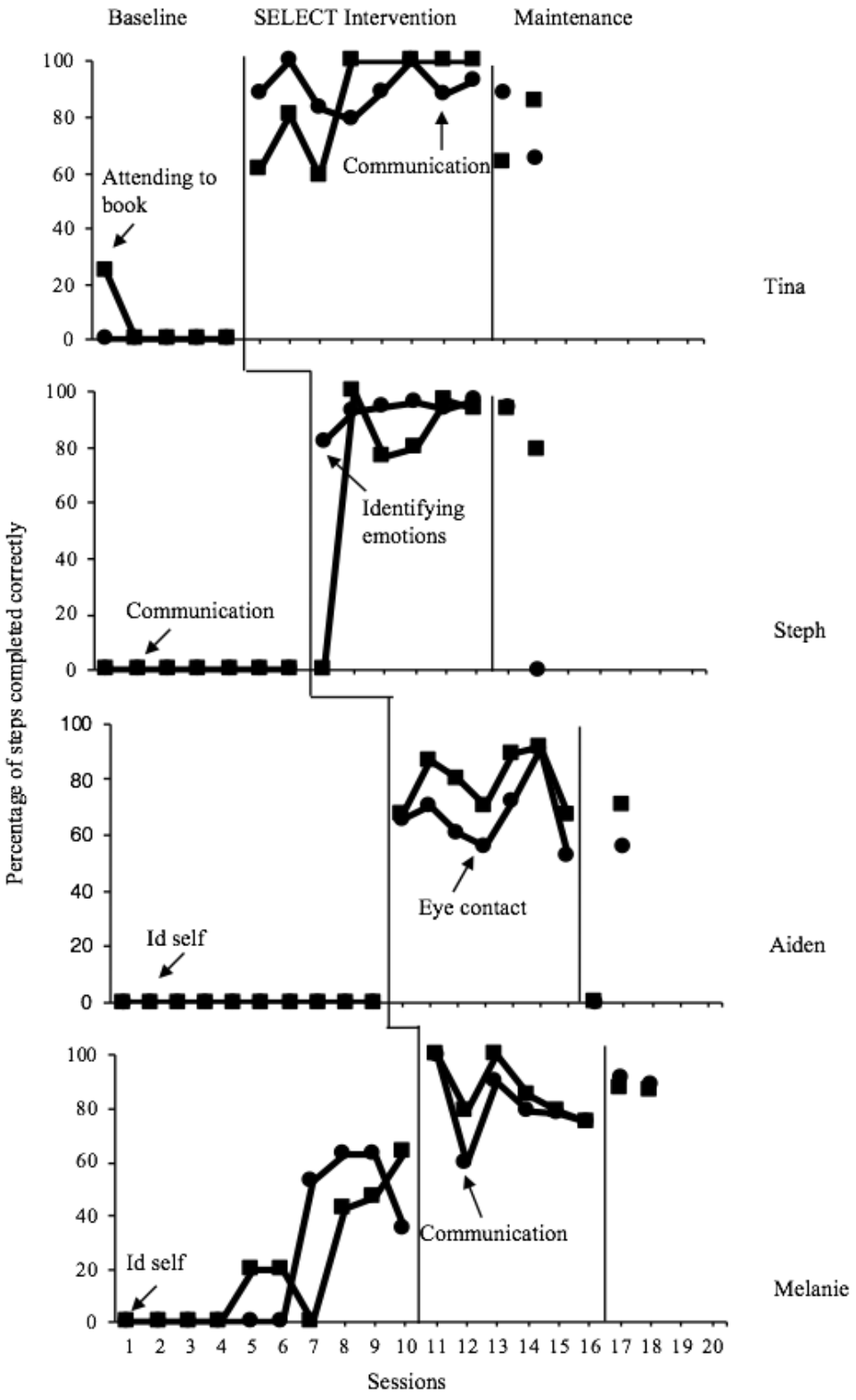


Figure 3. This graph represents data of parent participants in the second multiple baseline.

Quinn. Quinn's target behaviors were making eye contact with caregiver and playing with caregiver. For the first goal, frequency data were collected and during baseline Quinn's data were variable with an increasing baseline trend. The mean frequency of Quinn's eye contact was 12 with range of 3 to 25. Once the intervention began, his eye contact decreased initially; however, the data pattern showed an increasing trend. His data continued to be variable at a higher level. The mean frequency during intervention was 28 with a range of 14 to 47 eye contact within sessions. There were overlapping data points between baseline and intervention phases. Quinn's eye contact remained high during the first maintenance session; however, decreased during the last maintenance session. For the goal of playing with caregiver, Quinn's data showed a similar pattern with high variability and increasing baseline trend. During baseline, the average percent of interval in which Quinn engaged in play with his caregiver was 21% with a range of zero to 49%. During the first 3 intervention sessions, the percent of intervals engaged in play decreased with an overall increasing trend with a slight increase in level. Quinn's mean percent of intervals engaged in play during intervention was 36% with a range of 20 to 58%. In addition, there were overlapping data points between the two adjacent phases. Similar to Quinn's first goal, his responses remained high during the first maintenance session that then decreased during second maintenance session.

Jake. Jake's caregiver identified following simple directions and initiating communication as intervention targets for him. During baseline Jake's data points showed low variability with a mean frequency of 10 and a range of 6 to 21. Once intervention began, his responses immediate increased; however, remained variable throughout the intervention phase with overlapping data points. Jake's mean during

intervention was 15 with a range of 4 to 25% times following simple directions. Jake's responses decreased during the maintenance sessions. Jake's second target was initiating communication. During baseline, frequency of Jake's initiations were at low levels and stable with a mean of 2 and a range of zero to 5 times. After the first intervention session, Jake's initiations increased, yet was highly variable with increasing trend. During this phase, overlapping data points were observed. Jake's mean initiations was 12 with a range of 1 to 23 times. During both maintenance sessions, Jake's initiations decreased; however, remained higher than initial phase.

Jody. Goals that were identified by Jody's caregiver were focusing on events shown by his caregiver and identifying himself on the mirror or picture. During baseline, Jody's responses to events shown by his caregiver were at low levels and stable with a mean of 4 times and a range of 2 to 6. Following intervention, his responses immediately increased to higher levels with an increasing trend and no overlapping data points. During intervention the mean frequency of his responses were 12 with a range of 8 to 19. Following the completion of intervention phase, Jody's responses remained relatively higher than baseline. During baseline, Jody's identifying himself was at zero levels throughout the sessions. Following intervention, Jody's data points showed an immediate increase with minimal variability. His mean frequency was 5 with a range of zero to 10. Therefore, there were overlapping data points between baseline and intervention phases. During maintenance sessions, his responses remained high. Figure 4 represent the graphs of these participants data.

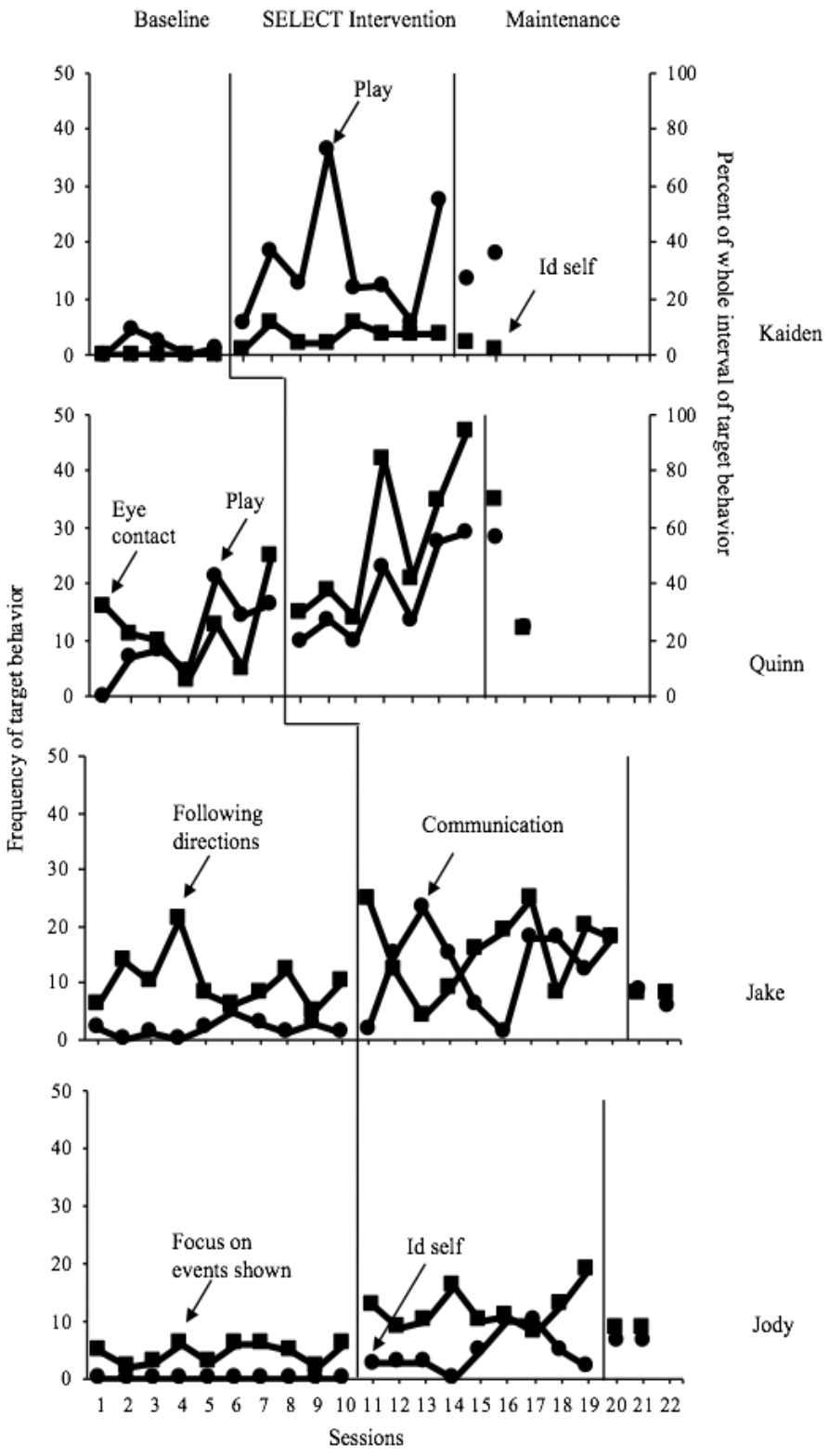


Figure 4. This graph represent child participant data in the first multiple baseline.

Logan. Logan's first goal requesting during baseline was at low levels with minimal to no variability. His mean frequency of requests was 1 with a range of zero to 2 requests per session. Once intervention began, his requests immediately increased to higher levels with an increasing trend. There was minimal overlap observed between baseline and intervention sessions. Logan's mean frequency during intervention was 13 with a range of 2 to 23 times. His frequency of requests decreased during both maintenance sessions; however, remained higher than baseline phase. Percent of intervals in which Logan attended to his caregiver's book reading was highly variable during baseline with a decreasing trend. During baseline, Logan's mean was 42% with a range of 8 to 70%. Following intervention, the percent increased immediately to higher levels with an increasing trend; however, there were overlapping data points observed. During intervention, the mean percent of intervals Logan attended to book reading was 67% with a range of 23 to 100%. During both maintenance sessions, Logan's attention to book reading remained high.

Mike. During baseline, Mike did not identify any emotions. Therefore, his data points during this phase were at zero levels. Following intervention, his data immediately increased to higher levels with a slight increasing trend and minimal variability. In addition, there were no overlapping data points. During intervention, Mike's frequency of identifying emotions was 14 with a range of 9 to 22. During the first maintenance session, Mike's frequency was high; however, during the second session, six weeks after intervention ended, his response decreased. For the second goal, during baseline, Mike's request was at low levels with minimal variability. Mean frequency of requests was 9 with a range of 0 to 11. Once intervention began, his request increased to higher levels

with an increasing trend and low to moderate overlap. During intervention, mean of Mike's requests was 12 with a range of 3 to 18. After the intervention was completed, Mike's frequency of requests decreased, yet remained higher than his baseline frequency.

Sarah. Sarah's eye contact during baseline was at low levels with minimal to no variability. Her mean frequency was 3 with a range of zero to 7 times. Following intervention, her eye contact immediately increased to higher levels with an increasing trend and minimal overlap . During intervention Sarah's mean frequency of eye contact with caregivers was 10 with a range of 3 to 17. During both maintenance sessions, Sarah's frequency of eye contact remained high. During baseline, Sarah did not identify herself on the mirror or picture, therefore, her frequency for her second goal was at zero levels. Following intervention, Sarah's responses became variable and had an increase in level with minimal overlapping data points. During intervention the mean response was 4 with a range of zero to 8. Her responding decreased during maintenance sessions.

Nate. During baseline, Nate's request was at low levels; however, his data pattern showed an increasing trend. His mean frequency of requests was 3 with a range of zero to 9. Following the second intervention session, the frequency of his requests increased to higher levels with an increasing trend with minimal overlap. During intervention, Nate's mean was 16 with a range of 3 to 23. This high frequency decreased during maintenance sessions, yet still remained higher than baseline sessions. During baseline, responses for Nate's second goal, identifying himself on the mirror or picture, was at low levels with a slight increasing trend. Once the intervention began. His responses increased to higher levels, with a slight increasing trend and had low variability and no overlap. During this phase, his data points had a mean of 6 and a range of 3 to 8, compared to his baseline

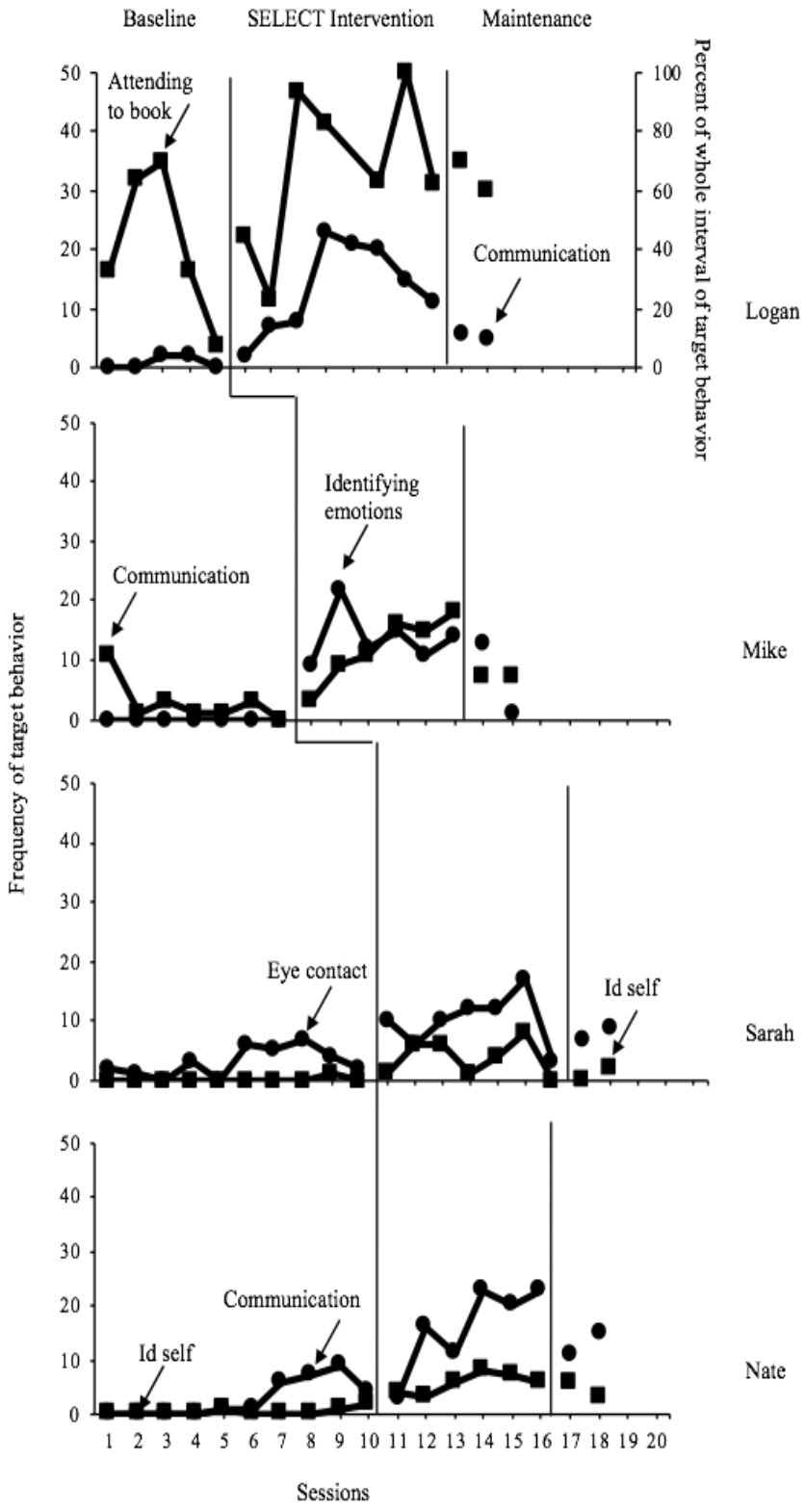


Figure 5. This graph represent data of child participants in the second multiple baseline.

mean of 0.4 and the range of zero to 2. Nate's responding remained high in the first maintenance sessions with a slight decrease in the second session.

Results of NAP

The non-overlapping data points were determined using an online calculator (singlecaseresearch.org) for parent and child participants. Parker and Vannest (2009) suggests that NAP ranges from 0 to .65 indicates weak effects; .66 to .92 indicates medium effects; and .93 to 1.00 indicates large effects of intervention. For Charlotte, the NAP score was 1.00 for goals of playing with caregiver and identifying self on the picture. For Kaiden, the same NAP score of 1.00 was found for both playing with his caregiver and identifying himself on pictures or mirror. For Dana, NAP scores were 94 for playing with caregiver, indicating large effects, and .84 for eye contact, indicating medium effects. For Quinn, NAP scores were .76 for playing with caregiver indicating medium effects, and .88 for eye contact, also indicating medium effects. Within the third parent-child dyad Allison's NAP score was 1.00 for both of the packaged strategies, indicating strong effects. For Jake's following direction skills, NAP was .73 and .90 for requesting. Both of these scores indicate medium effects. For Elisa's treatment fidelity on both the identifying self and focusing on items/events shown goals, NAP scores of 1.00 were found. These scores suggest strong effects. For Jody's goal of identifying self, NAP scores were .94, and a NAP score of 1.00 for focusing on items/events. Both calculations suggest strong effects. Within the second multiple baseline, NAP was calculated for Tina and Logan. Tina's treatment fidelity data points yielded NAP scores of 1.00 for both book reading and requesting suggesting strong effects. For Logan's book reading, the NAP score of .71 suggests medium effects and a NAP score of .98 for requesting

suggests large effects. For the second dyad NAP of the treatment fidelity on identifying emotions and Mike's identifying emotions were both 1.00, which indicates large effects. NAP for Steph's fidelity on requests was .92 and NAP for Mike's requests was also .92. These scores indicate medium effect. Aiden's NAP on the goals of eye contact and identifying self were 1.00, demonstrating strong effects. Sarah's NAP for both her goals was .91, indicating medium intervention effects. Overall, NAP analysis yielded either medium or large effects for all parent and child participants. Table 8 summarizes parent participants' NAP results and Table 9 summarizes child participants' NAP results.

Table 8.

NAP results of parent participants.

	NAP	
Participants	DV 1	DV 2
Charlotte	1.00	1.00
Dana	.94	.84
Allison	1.00	1.00
Elisa	1.00	1.00
Tina	1.00	1.00
Steph	1.00	.92
Aiden	1.00	1.00
Melanie	1.00	.98

Results of statistical analysis of the single-case data using GLS method

The regression-based Generalized Least Squares analyses were run using a computer program, SINGSUB (Rogers & Swaminathan, 2009). These analyses were run for each multiple baseline separately and each dependent variables both for parent and child participants.

Table 9.

NAP results of child participants.

	NAP	
Participants	DV 1	DV 2
Kaiden	1.00	1.00
Quinn	.76	.88
Jake	.73	.90
Jody	.94	1.00
Logan	.71	.98
Mike	1.00	.92
Sarah	.91	.91
Nate	1.00	.93

Parent participant analyses. For Charlotte's treatment fidelity data for playing with caregiver strategies, a standardized effect size of 3.14 was found (p = .142), indicating insignificant effect size. The analysis on Charlotte's treatment fidelity on her child identifying himself on the picture strategies, an effect size of 4.33 (p <. 05) was calculated, indicating a large effect size. For Dana, the analyses of her treatment fidelity on the playing with caregiver strategies, an effect size was calculated as 4.32 (p <. 05), indicating a large effect. Her treatment fidelity data on the eye contact strategies, however, had an effect size of 0.72 (p = .58), which indicates an insignificant effect size. Allison's effect size of the strategies for following directions was 0.99 (p = .358) which demonstrates insignificant effects and for the strategies on initiating communication an effect size of 3.16 (p <. 05) was calculated indicating a large effect. Finally, Elisa's data on the treatment fidelity of strategies for focusing on events produced an effect size of

2.18 (p = .052) and indicated an insignificant effect. For the second set of strategies of her child identifying himself in the pictures, the standardized effect size was calculated as 13.53 (p < .001), indicating large effects. Within the second multiple baseline, Tina's data on the use of strategies for attending to a book yielded an effect size of 3.48 (p = .174), showing an insignificant effect; on the use of strategies for communication, the effect size was 1.87 (p = .311), which also showed no effect. Steph's treatment fidelity data on identifying emotions yielded an effect size of 35.55 (p < .01) and 4.45 (p < .01) on requesting help, attention, or comfort. These indicated a large effect. Aiden's effect size calculation yielded an effect size of 8.34 (p < .001) on the strategies for eye contact and 12.35 (p < .001) on identifying self in pictures strategies, both indicating large effects. Finally, analyses of Melanie's data on fidelity of communication strategies yielded an effect size of 16.70 (p = .51), which indicates an insignificant effect and the effect size for the identifying self on picture strategy use was 0.71 (p = .328), also indicating no effect. See Table 10 for GLS results.

Child participant analyses. The GLS analyses for Kaiden's playing with caregiver goal, the standardized effect was 23.02 (p = .23), which indicated no significant effect; for identifying himself on pictures, the effect was 3.51 (p = .07) also showing an insignicant effect. Effect size for Quinn's playing with caregiver was 3.36 (p < .01), indicating large effect and 1.70 (p = .15) for eye contact indicating no effects. For Jake's following directions, the standardized effect was 0.35 (p = .78), indicating no effect and 1.08 (p = .48) for initiating communication, which also showed no effects. The effect size for Jody's focusing on events shown to him was 2.28 (p < .05), showing large effect and for identifying himself on the picture, it was calculated 1.92 (p = .22), showing no effect. As

Table 10.

GLS results for parent participants.

Participant	Autocorrelation	Standardized effect	*p*
Charlotte			
DV 1	-0.215	3.142	.142
DV 2	-0.277	4.327	.049*
Dana			
DV 1	-0.648	-4.318	.002*
DV 2	-0.241	0.723	.576
Allison			
DV 1	-0.187	0.994	.358
DV 2	-0.080	3.163	.013*
Elisa			
DV 1	-0.154	2.180	.052
DV 2	-0.236	13.525	.000*
Tina			
DV 1	-0.215	3.479	.174
DV 2	-0.470	1.869	.311
Steph			
DV 1	-0.648	35.553	.000*
DV 2	-0.104	4.450	.006*
Aiden			
DV 1	-0.187	8.337	.000*
DV 2	-0.362	12.354	.000*
Melanie			
DV 1	-0.154	-16.694	.511
DV 2	-0.645	-0.705	.328

Note. *$p < .05$.

for the child participants placed in the second multiple baseline, the effect size for Logan's attending to book reading was 2.06 (p = .30) and 1.33 (p = .61). Both of these results indicate insignificant effects. For Mike, the effects of intervention on identifying emotions was computed as 4.86 (p = .001) and 6.31 (p = .00) for requesting help, attention, or comfort, both indicating large effects. The effect size calculated for Sarah's eye contact was 1.72 (p = .11) and 2.02 (p < .05) for identifying herself in the pictures. These showed no effect for eye contact, whereas, showed large effect for identifying herself in the pictures. Finally, Nate's standardized effect sized were calculated as 1.72 (p = .17) for his communication goal, indicating no effect and 4.09 (p < .01) for his identifying himself in the pictures goal, indicating large effects. See Table 11 for these results.

Pre and post SEAM assessments

Pre and post SEAM ratings of parents were compared with a focus on the intervention targets identified by parents. For seven out eight children, parents reported an improved scores on the SEAM for at least one of their identified target skills. For six of the children, parents changed their ratings from "concern" to "not a concern". The comparison of the target skills for each child participant is presented in Table 12.

Social validity ratings of parents

Self-evaluations of social validity of this study were collected from parents at the end of the study. The ratings on the effectiveness and feasibility of this study were generally high. The self-evaluation form had questions from the least acceptable (rated 1) to the most acceptable (rated 5) as well as some reversed questions from least acceptable (rated 5) to the most acceptable (rated 1). For the latter type of questions, results were

Table 11.

GLS results for child participants.

Participant	Autocorrelation	Standardized effect	*p*
Kaiden			
DV 1	-0.137	-23.023	.225
DV 2	-0.523	3.514	.069
Quinn			
DV 1	-0.644	-3.263	.009*
DV 2	-0.495	1.696	.150
Jake			
DV 1	0.084	1.395	.232
DV 2	0.318	1.084	.477
Jody			
DV 1	-0.106	2.277	.049*
DV 2	0.384	1.922	.219
Logan			
DV 1	-0.314	2.059	.299
DV 2	0.447	1.326	.607
Mike			
DV 1	-0.615	4.860	.001*
DV 2	-0.301	6.306	.000*
Sarah			
DV 1	-0.063	1.720	.114
DV 2	-0.404	2.018	.028*
Nate			
DV 1	-0.405	1.147	.173
DV 2	0.076	4.085	.003*

Note. *$p < .05$.

Table 12.

Pre and post SEAM ratings for target skills

Participant	Pre SEAM	Post SEAM
Kaiden		
1.3. Toddler talks and plays with people whom he knows well	Rarely true	Rarely true
7.1. Toddler points to self in pictures	Rarely true	Somewhat true
Quinn		
1.3. Toddler talks and plays with people whom he knows well	Not true*	Not true*
5.1.Toddler makes eye contact with caregivers and peers	Not true*	Somewhat true
Jake		
1.4.Toddler initiates and responds when you communicate with him	Not true*	Very true
9.1.Toddler cooperates with simple requests	Rarely true*	Somewhat true
Jody		
5.2.Toddler focuses on events that you show him	Rarely true*	Very true
7.1. Toddler points to self in pictures	Rarely true*	Very true
Logan		
1.3. Toddler talks and plays with people whom he knows well	Rarely true*	Very true
8.4. Toddler looks at book or listens to story for 5 minutes or longer	Not true*	Very true
Mike		
1.1.Toddler lets you know if they need help, attention, or comfort	Somewhat true*	Somewhat true

Table 12 (Cont)

Participant	Pre SEAM	Post SEAM
2.4.Toddler identifies own emotions	Not true*	Somewhat true
Sarah		
5.1.Toddler makes eye contact with caregivers and peers.	Rarely true*	Rarely true*
7.1. Toddler points to self in pictures	Somewhat true*	Rarely true*
Nate		
1.4.Toddler initiates and responds when you communicate with him	Somewhat true*	Somewhat true
7.1. Toddler points to self in pictures	Not true*	Very true

Note. * indicates "concern" rated on the SEAM.

reversed to report mean ratings and the range of the ratings. The overall average rating, including all questions, was 4.51 with a range from 1 to 5. The highest rated questions were "How willing were you to carry out this intervention?" with a mean of 5 and "To what extent did you notice desirable side-effects from this intervention?" also with a mean of 5. The lowest rated questions were "How much time was needed each day for you to carry out the SELECT intervention strategies?" with a mean of 3.13 (range 1 to5) and "How willing were other family members to help carry out this intervention?" (range 3 to 4). The questions on the social validity form and mean rating are presented in Table 13.

Treatment fidelity

Treatment fidelity data were collected for 30% of the intervention sessions through videos. These data indicated an average of 100% for Charlotte's, 73 (range 63-83) for Dana's, 80% (range 75- 91) for Allison's, 90 (range 83- 100) for Elisa's, 100%

Table 13

The social validity questions and mean ratings.

Questions	*M*	Range
1. How acceptable did you find this intervention?	4.875	4-5
2. How willing were you to carry out this intervention?	5	
3. To what extent do you think there might have been disadvantages in following the SELECT intervention?	4.125	2-5*
4. How much time was needed each day for you to carry out the SELECT intervention strategies?	3.125	1-5*
5. How confident are you that the intervention was effective for your child?	4.625	4-5
6. How likely is this intervention to make permanent improvements in your child's social emotional skills?	4.75	4-5
7. How disruptive was it to carry out this intervention?	4.75	4-5*
8. How much do you like the procedures used in this intervention?	4.75	4-5
9. How willing were other family members to help carry out this intervention?	3.625	3-4
10. To what extent did you notice desirable side-effects from this intervention?	5	
11. How much discomfort did your child experience during this intervention?	4.375	2-5*
12. How willing would you be to change your routines to continue to carry out this intervention at home?	4.625	4-5
13. How well did carrying out this intervention fit into your existing routines?	4.375	4-5
14. How effective was the intervention in teaching your child social emotional skills?	4.75	4-5

Table 13 (Cont)

Questions	*M*	Range
15. How well did the goal of intervention fit with your goals for your child?	4.875	4-5

Note. *Item ratings were reversed.

for Tina's, 75 (range 67- 83) for Steph's, 89 (range 88- 89) for Aiden's, and 100 for Melanie's coaching sessions.

CHAPTER IV

DISCUSSION

In this chapter, findings of the current study are interpreted. First, a summary of the purpose and methods are provided. Second, results are interpreted for each research question. Finally, implications for practice, limitation of the study, and suggestions for future research are discussed.

Social-emotional skills are crucial intervention targets for young children, as social-emotional competency and skills are related to future academic success and quality of life (Powell & Dunlap, 2009). Although not directly associated, the lack of social-emotional skills in early school years may hinder success due to increased likelihood of the child engaging in challenging behavior and missing learning opportunities. Young children with developmental delays may especially experience difficulty with social-emotional development, such as expressive and receptive communication (Case-Smith, 2013), that in turn may affect their development in other domains. High quality EI programs are characterized by developmental appropriateness and natural settings. This highlights the importance of focusing on social-emotional development within family home environments for infants and toddlers (Odom & Wolery, 2003). Furthermore, a myriad of curricula focus on social-emotional development; however, few curricula focus solely on the social-emotional development of infants and toddlers. In addition, the scope of these curricula do not particularly align with the differentiated intervention needs of children with developmental delays.

Multiple published reviews of the literature suggest that parent-implemented interventions are effective to increase a variety of adaptive skills and to decrease

challenging behavior for children with intellectual and developmental disabilities (Duda, Clarke, Fox, & Dunlap, 2008; Gentry & Luiselli, 2008; Machalicek, Lang, & Raulston, 2015; Meadan et al., 2009). In another literature review conducted by Barton and Fettig (2013), findings showed that the majority of participants were between the ages of 3 and 5. When these results are taken together with the findings from another study that reported a compelling percentage of children entering into classroom who engage in challenging behavior associated with lack of social-emotional skills (Barbarin, 2007), another limitation in the literature appears for interventions to increase social-emotional skills for infants and toddlers through parent-implemented interventions, in their natural environments.

Limited curricula and research exist in the literature on training and coaching parents targeting social-emotional development of infants and toddlers. The current study aims to address these gaps in the literature, regarding social-emotional curriculum for EI service providers to train and coach parents within home visits, for young children with developmental delays or disabilities. The purpose of the present study was to evaluate the effectiveness of parent coaching on the use of SELECT intervention strategies on the treatment fidelity of parents and the effectiveness of parent-implemented SELECT intervention strategies on the increased child social-emotional skills.

Three EI service providers and eight parent-child dyads were recruited from a local educational agency. Each parent identified two intervention goals with a number of corresponding SELECT intervention strategies. These strategies were packaged for each targeted child skill by researchers. Following baseline data collection, parents received immediate performance feedback and coaching on their use of intervention strategies

from their existing EI service providers. Data on the parents' fidelity of intervention implementation in each session and on children's targeted social-emotional skills were collected. Additionally, parent perceptions of the acceptability, effectiveness, and feasibility goals, procedures, and outcomes of the intervention were collected through self-evaluation forms.

Summary of Findings

This study aimed to address several experimental and non-experimental research questions. A concurrent and a nonconcurrent randomized multiple baseline design across parent-child dyads were employed to address these questions.

Research question one

Is there a functional relation between the parent training and coaching on the SELECT intervention and an increase in level of intervention fidelity of parents of young children with disabilities? To answer this research question, data were collected on parents' intervention fidelity on the use of two packaged SELECT intervention strategies to target two SEAM intervention targets. The data collected were graphed, visually analyzed and analyzed through non-parametric and parametric analyses. Visual analyses of the concurrent multiple baseline graph indicate a strong basic effect for both dependent variables for Charlotte, Aiden, and for Elisa however, there was no basic effect for Dana. Therefore, overall, there was a strong functional relation between the parent training and coaching on the SELECT intervention and an increase in level of fidelity of parents. The non-overlap analysis (i.e., NAP) yielded mixed results with no overlap for three of the four parent participants (i.e., Charlotte, Aiden, and Elisa). The regression-based GLS

analyses also indicated mixed results. There were significant effects found for Charlotte, Dana, Allison, and Elisa; however, these were found only for one of the packages.

Visual analysis of the nonconcurrent multiple baseline graph indicate strong basic effect for Tina, Steph, and Aiden on both of the dependent variables, therefore, there was a strong functional relation between the parent training and coaching the SELECT intervention and an increase in level of fidelity of parents. However, for Melanie, there was an increasing trend in baseline and overlapping data points between baseline and intervention. Therefore, there was no basic effect for this participant for both of the dependent variables. The non-overlap analysis yielded similar results with minimal overlap, except for Melanie's data. In addition, GLS analyses of parent intervention fidelity data indicated significant and large effects for both dependent variables of Steph and Aiden but no significant effects were found for Tina and Melanie.

Research question two

I*s there a functional relation between the increased parent intervention fidelity and increased rate of targeted social-emotional skills of young children with disabilities?* To answer this question, data were collected using dimensional and nondimensional properties of behavior. For some participants, data on the rate of target behavior were collected, whereas, for continuous behavior such as attending to book reading, a whole interval data collection procedure was used. Visual analysis for Kaiden and Jody suggest that there were basic effects for both of the target skills. For Quinn, however, visual analysis suggests no basic effect for either of the target skills due to overlapping data points and variability. Finally for Jake, there was a basic effect for the second dependent variable and a weak effect was observed for the first dependent variable, based on visual

analysis. The NAP findings also indicate mixed results due to overlapping data points of three of the four child participants. Finally, GLS analyses yielded significant effect sizes for Quinn's and Jody's first dependent variables. The visual analysis of the second multiple baseline indicated an overall moderate to strong effect. Specifically, for first data patterns, there was a clear basic effect for Mike, and moderate effects for Logan, Sarah, and Nate. For the second data patterns, there was a clear basic effect for Logan, Mike, and Sarah, and moderate effect for Nate, due to increases in baseline. The NAP results support the findings of visual analyses, and the GLS results showed significant effects for both dependent variables of Mike, second dependent variable of Sarah and Nate. No significant effects were found for Logan.

Research question three

Is there a functional relation between the parent training and coaching on the SELECT intervention and generalized parent fidelity of intervention across activities? This research question was anticipated to be addressed through parent recorded videos across different activities such as snack time, bed time, bath time, both during baseline and intervention. The parents were prompted to make 3-5 minute videos and were provided with flip cameras. However, a number of parent participants did not provide these videos, which resulted in no available data on the generalization of strategy use. In addition, the videos that were available were watched and it was clear that the parents recorded these videos only during play time, instead of different activities. Moreover, the videos available did not allow for experimental evaluation due to insufficient number (i.e., less than 3 for each phase) and insufficient length (i.e., shorter than 3 minutes with both participants in the video).

Research question four

Is there a functional relation between generalized parent fidelity of intervention and increased generalization of child social-emotional skills across activities? This research question was also not answered due to the reasons explained above for research question three.

Research question five

How will parents rate the acceptability and social validity of the SELECT interventions and child outcomes? To answer this research question, the parents rated a Likert scale, TARF-R, which included 15 questions related to the acceptability, effectiveness, and feasibility of the current study and procedures. The findings from these ratings were overall positive in the direction of acceptable, effective, and feasible. The mean rating of all of the questions was 4.5 with a range of 3.13 to 5. The lowest rated question was related to how much time was needed to carry out the intervention; the highest rated questions were related to parents' willingness to carry out the intervention and how effective they found it for their children.

Research question six

What is the agreement between EI/ECSE provider rated parent implementation of SELECT strategies using a global measure and the researcher examined parent implementation of SELECT strategies using a molecular measure of implementation fidelity? This research question was not answered due to a number of reasons. First, during each session, the data collector recorded the video of the whole session. The existence of a video camera in the room was distracting for some of the child participants, therefore, the data collector was required to hold the camera in their hand in order to

ensure adequate view of the parent-child interaction and to avoid children from moving the camera. Because of this effort to videotape, it was not possible to record the session with high quality and to also collect data in person. Therefore, the videos were coded through videos and no in vivo session data were collected, which resulted in having no data to compare with the provider ratings. Second, the providers and the data collector faced time constraints due to the high number of sessions within short availability. Therefore, either the providers or the data collector had no time to check in to compare the fidelity ratings at the end of each session. Also considering the previous limitation, no data were available to compare to address this research question.

Overall, the results of the study can be interpreted according to the findings of parent participants and the findings of child participants. For parent participants, the key findings were mixed; however, the study appears to produce mostly positive effects for parents. Six out of eight parents had strong effects for both of the packaged intervention strategies that they received coaching on. Two of the parents that had weak effects were Dana and Melanie. There were known factors that resulted in weak effects for these two parents. In the beginning of the study, Dana reported that she participated in a research study within the last year for her older son who was diagnosed with autism. She stated that the research study focused on communication strategies for her older son. Her baseline data showed highly variable data that ranged from zero to 100. Considering this finding, it is possible that she had similar strategies in her repertoire that she generalized to baseline sessions in this intervention study. Another possible factor might be that, although Quinn met the inclusion criteria for the current study, his developmental needs may necessitate more intensive, targeted interventions. The SELECT curriculum was

designed as a low dose low intensity program for young children with developmental delays. Anecdotally, following the study, Dana reported that Quinn engages in stereotypical behaviors and that their family had started the process for autism evaluation at a local clinic. Another interesting finding was the increasing baseline trends for Melanie and Nate for both of the dependent variables. This could have been apparent due to multiple reasons. First, before the current study, Nate was diagnosed with ASD; however, because he did not engage in disruptive behaviors, he met the inclusion criteria to participate in the study. However, Nate's parents were informed that he had hyperlexia during baseline phase. After this information, Melanie started to incorporate Nate's ability to read in the baseline sessions. Specifically, Melanie used a white board to give Nate options to choose from, which was an identified strategy in the SELECT curriculum, and Nate read the choices and communicated verbally to have access to one of the options. Therefore, even though Nate was working on initiating communication to request items without written stimuli, he was able to choose when written stimuli were present and when asked to read the board. Second, Melanie had experience teaching children with autism, as a paraeducator. Therefore, it is highly likely that she was already aware of a number of targeted intervention strategies. It appeared that Melanie used a number of strategies for Nate to respond, such as using the least-to-most prompting hierarchy in the baseline phase for Nate to identify himself on the pictures.

In addition to the two dyads discussed above, there were mixed results for two child participants. First, visual analysis of Jake's following directions showed weak effects, although the mean rate of following requests increased from baseline to intervention. The NAP results differed from visual analysis and indicated medium

effects. However, the results the GLS analyses yielded also nonsignificant intervention effects. Therefore, it can be concluded that there was no functional relation between the intervention and increased rate of following directions. There were no known factors for this weak effect. Anecdotally, Allison reported that Jake had a difficult time following directions when transitioning from preferred activities to less preferred activities. Specifically, Jake engaged in minor challenging behavior when he was asked to go back home from the playground. However, because this was a home-based research study, it was not possible to address this concern. Instead, the parent and the provider worked on this skill during transitioning from playing with novel toys to playing with toys that existed in his home. Similarly, visual analysis of Logan's data path for attending to books showed weak to moderate effects. The results of the NAP was in agreement with the visual analysis, showing moderate effects. The effect size found from the GLS however differed from the visual and NAP analyses and was large. Surprisingly, Logan's visual analysis of the second data path showed strong basic effect for increased requests that he initiated. Further, the NAP findings also showed large effects. However, the GLS analyses yielded insignificant p values.

Implications for Practice

The current study evaluated the effectiveness of a curriculum that is specifically designed for EI service providers to use during their home visits to coach parents on social-emotional intervention strategies. In this way, the study provides preliminary results as well as unique implications. First, intervening on social-emotional development of young children in their natural environment through their caregivers reflects recommended practices in EI/ECSE (Dunst, Bruder, Trivette, & Hamby, 2006).

Incorporating recommended practices may increase parents' use of supporting strategies for their children's social-emotional development, therefore, may increase children's school readiness, decrease the likelihood of challenging behavior that occurs due to lack of social-emotional skills.

Second, the first and primary resource for parents of young children with developmental disabilities or delays is their EI service providers (National Association for the Education of Young Children, 2011), which brings the attention to trained service providers. It is critical that EI service providers provide these supports to families, using evidence-based practices (Lang et al., 2012). Previous research suggests that only one third of practices used by EI providers were evidence-based practices (Stahmer et al., 2005), which may suggest limited opportunities for training and professional development and/or knowledge of evidence-based practices. Previous studies also have shown that didactic training for EI/ECSE providers or early childhood professionals does not produce long-term behavior change (Joyce & Showers, 2002; Rispoli, Neely, Lang & Ganz, 2011); therefore, it is essential to provide effective coaching to service providers to ensure high quality EI/ECSE services. Prior to the current study, the EI provider participants were recruited to receive didactic training that was followed by behavioral skills training including role play with coaching and subsequent emailed feedback on their strategy use with a pilot family over several weeks until they reached high fidelity.

With a focus on evaluating the effects of performance feedback on the sustained use of recommended practices of early childhood teachers, Barton and colleagues (2018) evaluated the use of such emailed feedback. The emailed feedback included examples of target teacher behavior, positive feedback, and corrective feedback if and when needed.

The findings from this study showed that the brief performance feedback via email was effective to increase the sustained use of these strategies. Similarly, in the current study, brief emailed performance feedback was utilized to increase treatment fidelity and support the sustained high fidelity with a focus on the implementation of the SELECT curriculum. Within the field of EI/ECSE, emailed performance feedback may be effective when supporting the long-term behavior change of EI/ECSE service providers, whether this is use of curricula or evidence-based strategies.

Third, this study employed a four level cascading intervention model. This model can be described as an intervention model that involves 1) a specialist research team that trains 2) early intervention providers serving as coaches who then coaches 3) parents to implement the intervention for their 4) children with developmental disabilities or delays. Results of this study indicates that there were changes in parent behavior and there were related changes in child behavior. This is not an uncommon finding of studies evaluating effects of parent-implemented interventions. For instance, McDuffie and colleagues (2013) utilized distance video-teleconferencing to coach parents in implementation of a naturalistic parent-implemented language intervention to mothers of eight young children with ASD. The authors reported that as the parent's use of naturalistic language intervention strategies increased, child responses increased as well. In addition, Erturk, Hansen, Machalicek, and Kunze (in press) conducted a study, in which two mothers of young children with ASD were trained and coached on the use of three different naturalistic intervention strategies (i.e., imitation training, environmental arrangement, and joint attention intervention) to increase three different child responses (i.e., imitation, behavioral request, and response to joint attention), using two independent multiple

baseline design across three behaviors. The findings from this study supported the findings of the current study, also showing increases in parent behavior that were followed by increases in child behavior.

Fourth, related to both of the aforementioned implications, because the setting of this study was home and the implementers were natural change agents, goodness of fit was crucial. Although the concept of goodness-of-fit has been described in different ways, it is characterized by the idea that the best prediction of outcome is the match between the family and intervention (Simeonsson, Bailey, Huntingtin, & Comfort, 1986). Within the current study, there were elements that supported the goodness-of-fit and contextual fit in multiple ways. For example, the intervention occurred during daily activities that reflected the families' lives (Gallimore, Goldenberg, & Weisner, 1993). Specifically, one parent chose to implement the intervention while the child was seated at the table, because it was the expectation from the child and was characteristic of the typical parent-child interaction in this family. In addition, the target skills identified as dependent variables were operationally defined based on the individuals' skills. For example, for a child who communicated using words, the communication goal was defined with verbal communication, whereas, for a child who communicated using gestures, the communication goal was defined with gestures, even though they both had the same goal identified on the SEAM. Finally, the packaged intervention strategies were individualized when parent-child interactions and family context were taken into consideration. To ensure that the strategies were a good fit for a dyad, the parents were asked for input, although they were not directly involved in the selection of the intervention strategies. For example, if a parent selected "identifying emotions" as a

target skill, before "book time" was added in the packaged intervention, the provider asked the parent if the parent regularly reads books to the child and if the child attends to book reading. In summary, the SELECT curriculum offers a myriad of strategies for each skill that is directly mapped onto the SEAM. Therefore, it is flexible to allow for enhanced contextual fit.

Limitations and Future Directions

The current study had several limitation that are worth noting. First, although methodological rigor was sought, due to challenges in recruitment of families, the second multiple baseline was non concurrent. Utilizing randomization techniques came with advantages to control for the different start points of data collection for each dyad in the multiple baseline. Because the dyads were randomly placed within the multiple baseline tiers and the intervention start point was also randomized, the degree to which the study had internal validity does not cause concern. However, due to limited external validity, which is inherent to any single single-case experiment, this study should be replicated across research teams. Moreover, in the current study, baseline data were collected using a "business as usual" approach. Although parents were prompted to focus on the goals they identified earlier, a limited number of opportunities were available during baseline sessions. This may have caused a floor effect for child participants' dependent variables. One way future research can address this limitation is by providing the packaged strategies before baseline data collection begins, to evaluate the frequency of the use of these strategies as well to evaluate the correct use of these strategies without any coaching provided.

In addition, there was a large variety of child and parent characteristics in this study. As discussed earlier, one of the participants was diagnosed with autism at the end of the study and one participant is suspected to have autism symptoms. The results of the study showed differential effects potentially associated with these participant characteristics. Considering that the SELECT intervention is a low dose, relatively low intensity curriculum designed for young children with disabilities and delays that are not in need for intensive services, it is likely that this curriculum may not be highly effective for children with autism or children who need intensive support to make clinically significant developmental gains. Future research may benefit from evaluating the effectiveness of the curriculum for children with similar levels of needs, that is within the scope of the SELECT curriculum.

Next, because this was the first experimental study that investigated the effects of the newly developed SELECT curriculum, there were variables that were highly controlled. One example is that each target goal identified by parents was operationally defined after discussions between the researcher, EI service providers and parent. These operational definitions differed from child to child, even though the goals were the same. For instance, if a child was working on initiating communication and was not using words to communicate, the goal was operationally defined using the child's communication modality (e.g., gestures and nonword vocalizations). Similarly, due to highly controlled procedures during the pre-baseline phase, the intervention strategies were selected and packaged mostly by the researcher, in collaboration with the EI service providers. When packaging these interventions, at least two strategies that included active ingredients were included within the package. However, this process was also highly

individualized based on the family factors, parent and child preferences, and the ease of use parents with existing materials in their homes. Therefore, there are no guidelines as to how to package SELECT intervention strategies nor guidance on how to operationally define parent and child behaviors that allow objectivity during progress monitoring. Moreover, ensuring contextual fit of the packaged intervention strategies for families may increase the complexity of packaging these interventions for EI service providers. Thus, with the addition of guidelines or support for the targeted users of the SELECT curriculum, future research may uncover differences of the independent use of the curriculum from implementation with researcher support.

Finally, no generalization data were available for experimental conclusions. Parents were asked to video record a 3 to 5 minute parent-child interaction during a second daily routine or activity outside of parent child play without coaching from the researcher or early intervention provider within each experimental phase of the study. Unfortunately, the videos received from parents were within the same parent child play context as the study. Thus, there was no clear opportunities to assess generalization across setting or activities. In addition, although the parents were asked to interact with their child and use the strategies during their interaction, the number of opportunities during this intended generalization probe were anecdotally observed to be nonexistent to very limited. For these reasons, future research should focus on evaluating the effects of coaching on the generalized parent use of SELECT strategies as well as the effect of generalized parent use of strategies on the child behavior within different settings or activities.

Conclusion

The current study provides preliminary evidence that the SELECT curriculum was effectively implemented for parents, when coached by their EI service providers during their home visits. These results are promising in that, coaching parents on the SELECT strategies showed increases in the parents' correct use of strategies, which then resulted in increases in child behavior. The findings of the study were positive for the majority of the parent and child participants and provided positive ratings as to what extent the study was acceptable, feasible, and perceived effective. The results of the study contribute to the small body of literature of social-emotional curriculum designed for EI service providers to increase the quality of services and the quality of coaching practices during home visits.

APPENDIX A

SELECT Intervention Provider Guide for Benchmark 4.0

PROVIDER GUIDE

BENCHMARK: *TODDLER BEGINS TO SHOW EMPATHY FOR OTHERS*
(SEAM Benchmark C 4.0)

DEVELOPMENTAL LEVEL: TODDLER

Description of Benchmark

The term empathy refers to the ability to notice and respond compassionately to the feelings of another person. Toddlers are not yet developmentally ready to fully express empathy, it is something that evolves over time. Children develop the ability to show true empathy around the age of six. A child's development of empathy is influenced by their environment and experiences. Safe, secure emotional attachments to others are the basis for learning empathy.

Empathy is a complex skill. It involves being able to think about something from another person's perspective instead of your own. Although toddlers are not yet developmentally able to demonstrate true empathy, toddlerhood is a time when children begin to learn some of the precursors to empathy. This includes being able to match their responses to another person's emotional reactions, comfort someone else when they are upset, and talk about another person's feelings.

Toddlers learn skills related to empathy through their interactions with others, particularly their caregivers. When a child's caregiver displays empathy towards their child it helps them learn to respond to others in similar ways. For example, when a child gets hurt his father comforts him by rubbing his back and talking to him calmly. When the child sees a friend at school crying they rub their friend's back and talk to them quietly. In addition, when caregivers name their child's emotions, and point out the emotions of others, toddlers start to expand their understanding of feelings. They pay more attention to the emotional reactions of others. For example, when a toddler cries her grandmother holds her and asks, "*Are you feeling sad*?" During an outing, the toddler sees another child crying and tells her grandmother, "*She's sad*."

If a child receives inconsistent or negative responses when they are upset (e.g., child cries but no one responds to their distress, caregiver yells at crying child) the child learns to withdraw or stop showing their feelings. In addition, they learn to ignore or respond negatively to another person's feelings. Therefore, it is important to support caregivers in responding to their child in empathetic ways. Helping caregivers model kindness and compassion towards their child supports the child's understanding of empathy. This benchmark focuses on key skills that build the foundation for empathy.

Skills within this Benchmark include:

- Toddler matches response to others' emotional responses. (*SEAM Item 4.1)*
- Toddler tries to comfort others when they are upset. (*SEAM Item 4.2*)
- Toddler uses words to talk about another child's emotions. (*SEAM Item 4.3*)

Learning how to pay attention to and respond to another person's feelings helps children build strong relationships. The ability to show empathy leads to better social skills and school and work success later in life.

Encouraging Empathy: Toddler and Caregiver Behaviors

Toddlerhood is a time to expand on the foundation for empathy through responsive caregiving. Caregivers teach empathy when they name their child's emotions and respond in caring ways. For example, a child becomes startled by a passing dog that barks at her. Her mother picks her up and says, "*That dog is barking loudly. He really scared you. I will hold you so you feel safe*." This action models empathy for the child. She learns that her mother cares about her feelings and will do something to help her.

Theory of Mind

The term theory of mind is used to describe a child's ability to understand that others have their own thoughts and feelings, separate from the child's. Having this ability allows the child to start considering the other person's feelings when they make decisions. This is a complex skill that typically begins to emerge between the ages of 3 to 4. There are several earlier skills that children need to develop before they establish theory of mind. These foundational skills start developing during infancy and toddlerhood. They include the abilities to attend to others, mimic others, recognize one's own feelings and the feelings of others (through facial expressions, tone of voice), and beginning to label one's own emotions and the emotions of others. In addition, children must also understand what causes emotions (e.g. If I take my friend's toy it will make him angry*)*.

It takes a long time for children to develop the ability to take into account another person's perspective. Toddlers are, by nature, self-centered. They must first learn about their own needs and feelings before they can focus on the needs and feelings of others. Caregivers begin to help toddlers tune into the feelings of others by pointing out and explaining feelings when they see them. For example, when another child is crying his mother explains why the child is upset *("Mario is sad because his grandma had to go bye-bye"*). In addition to helping toddlers learn to notice other people's emotional reactions, when caregivers label other people's feelings it helps their toddler begin to recognize that others feel things just like they do.

Toddlers will begin to display additional skills related to the development of empathy, such as going to another child when they are upset and mimicking a caregiver's loving response. For example, when a child experiences having their caregiver comfort them when they get hurt, they will go to sibling when they fall and give them a hug. When caregivers provide positive attention to their toddler for displaying these behaviors *("Thank you for helping your brother. That helped him feel better"*) they help reinforce the child's actions. By noticing these early pro-social behaviors, caregivers create natural opportunities to begin teaching toddlers to recognize the feelings of others. Caregivers can also support their child in developing empathy by acknowledging their feelings and empathizing with them. For example, a child starts crying when his mother leaves. His father picks him up and says, *"You sound sad. It's okay Mommy will be home soon. I will take care of you until she comes back."*

Talking with Caregivers about Encouraging Empathy

The most important message to give caregivers about empathy is that they help their child learn it by modeling it through their own actions. Every time their child sees them treat others in a kind and loving way they see an example of empathy. Every time their child experiences loving responses from their caregiver they have an example to follow. Help point out ways the caregiver is showing empathy to their child (e.g., *"I notice that he came to you right away when he was scared. When you picked him up and held him, you showed him that you are here for him and he is safe"*).

Caregivers may need support in understanding how empathy develops. They may have expectations around empathy that aren't developmentally appropriate for their toddler. For example, a caregiver may feel that their toddler is being selfish when they take a toy away from another child. Help caregivers understand that it is developmentally appropriate for their child to be focused on themselves, rather than thinking about others. Explain that a toddler's first job is to get to know their own needs and feelings. Children don't start to understand the concept of sharing until around two or two and a half years old. Before then caregivers can provide experiences and gentle guidance to help their child start to learn how to consider the feelings of others.

Help caregivers understand and focus on foundational skills that toddlers learn earlier. Some of the skills that are pre-cursors to empathy are:

- A child's understanding that they are a separate person from their caregiver and others around them
- The ability to recognize and label their own feelings
- The ability to recognize the feelings of others and the signs of those feelings (e.g., smiling, laughing, crying)
- The understanding and use of appropriate responses to another person's feelings (e.g., patting a child on the back when they are crying)

Encourage caregivers to talk about other people's feelings with their child. For example, they can help their child notice what a sibling is feeling ("*Look at Gina's face. She looks sad*") and think about ways to respond ("*What do you think we can do to make her feel better?")*. When a toddler is playing with friends, caregivers can help their child think about how their actions impact another child. For example, "*When you took Frankie's train it made him mad. Give his train back to him and choose another toy*." Help caregivers model and prompt empathy as situations arise. For example, if someone gets hurt they can help their child bring over a band aid, or get out an ice pack.

Support caregivers in thinking about other ways to build empathy into their child's day. Book time and pretend play are great times of day to focus on empathy. Help caregivers find books that talk about or show feelings. Model how they can ask questions about feelings as they look at

the book with their child. For example, point to a character in the book and say *"Look at his face. How do you think he is feeling?"* Help caregivers think of simple pretend play scenarios that incorporate empathy. For example, caring for a child doll who is sick, or helping a stuffed animal find his mommy when he is lost.

Developmental Milestones of Empathy

Age	Milestone
12 - 18 months	○ Offers objects to others (e.g., child sees another child is upset and hands them a toy. ○ Children begin to change their behavior in response to other people's feelings.
2 years	○ Toddlers notice and respond to the feelings of family members and friends ○ Child recognizes self in mirror
3-4 years	○ Children start to develop theory of mind (begins to understand that others have their own thoughts and feelings, separate from his/her own) ○ Children begin to connect their own feelings to the feelings of others ○ Begin to be able to think about a situation from the perspective of another person (e.g., When someone says they are feeling sick the child comes over to comfort them).
5 years	○ Children are able to think about hypothetical situations (e.g., "How would you feel if…) ○ Begin to be able to read the feelings of others through body language and facial expressions

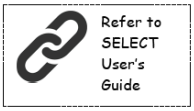
Routines

Routines are a great time for caregivers to demonstrate empathy toward their child and point out and label the feelings of others. As a home visitor, getting to know a family's daily routines can help you assess for consistency and identify routines that are difficult for the family. Consistent routines help ensure that a child's basic needs are met. Children who have their own needs met are better able to pay attention to how others around them feel. If there are routines that are more difficult for a child you can help caregivers problem solve ways to empathize with their child and make them more successful.

Guidelines for Choosing Appropriate Routines
Help caregivers identify routines where they can work with their child on skills related to empathy. Several considerations should be kept in mind when selecting appropriate routines. First, think about routines where caregivers can easily address the skill with their child. For example, mealtimes are a great time to share how everyone in the family is feeling. Outings are good time to help children notice other children and how they are feeling. Additionally, help caregivers identify the routines where they feel they have the most time to focus on the skill. Refer to information you have gathered from the family during the SELECT interview. This includes information regarding which routines and times of day typically go well for the child and their caregiver, as well as those that are more difficult. Depending on the skills you are focusing on, it may be more appropriate to address them during activities that go well, or during activities where more support is needed. For example, if the caregiver is trying to help their child learn how to comfort others when they are upset, they might want to model this for their child by comforting them during difficult routines. However, if you are working with the child on noticing the emotions of others, it would be important to do it during routines that are going well, so the child can focus on someone other than themself.

Things to consider when helping caregivers select routines to help their child work on skills related to empathy:

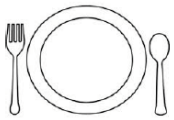
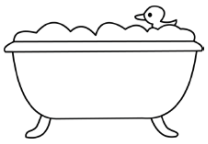
- What routines provide the most opportunities for practicing the skill(s)?
- During which routines do caregivers feel they have the most time to work on the skill? This could include thinking about which routines are most consistent and which routines are less rushed.
- Does it make more sense to work on the skill during routines that are more difficult for the child or routines where the child is having the most success?



NOTE: If families are lacking consistent routines in their daily lives it can often create a more chaotic environment for both the caregivers and their child. This can be a barrier to helping families focus on ways to build healthy interactions. If you are working with a family who is struggling during daily activities due to the lack of consistent routines, you may need to first support them by helping them build consistent routines. See the chapter on Ways to Support Families in Building Routines to help guide you in addressing this concern.

Links to SELECT Activities

The following table provides examples of simple ways caregivers can model empathy and encourage precursor skills during regular daily routines. This information is provided for caregivers within the SELECT Activities.

Routine	Modeling and Supporting Empathy
Feeding/Meal Time 	• Seat child so they can easily see everyone at mealtime. This will help them attend to the facial expressions of others. • Comment on child's emotional reactions during mealtimes *("You were hungry! Do you feel better now?", "Oh, you don't like that. Does it taste yucky?")* • Do a check-in and take turns talking about how everyone in the family is feeling during mealtimes ("*I am feeling happy because I had such a fun time at the park today*", "*I am feeling sad because Auntie Susan had to leave today*"). • Ask the child how they are feeling and help them label their emotions.
Bath Time 	• Provide appropriate support so that child feels safe. • Play with water toys (e.g., rubber ducks, plastic fish) and make up play scenarios where you talk about the toy's feelings ("*Duck feels lonely now that his fish friend swam all the way to the other side of the tub*.") • Notice and comment on child's reactions to the bath. Label feelings *("Does that water feel good? You look relaxed.")* • Be playful with the child as they are taking their bath (e.g., splash water, make silly sounds and faces) and see if child matches your responses. • If child gets upset while bathing respond to them in a caring way. Take child out of tub, wrap them in a warm towel and hold them to help them calm down.
Play Time	• Eliminate distractions (e.g., turn off cell phone, turn off television) so you can fully engage with child. • Get face to face with child and make exaggerated facial expressions as you play. Wait and see if the child imitates back. • Pretend that child dolls or stuffed animals are upset or sick. Model taking care of them. Come up with other scenarios that involve emotions. • Talk about feelings during pretend play *("The elephant*

	*is mad because zebra stepped on him. Giraffe is going to see if he is okay."*) • Empathize with child when they have to wait or share (*"I know it is hard to wait. It will be your turn soon."*) • If child is playing with sibling or peer, point out the other child's emotions as you play. "*Look at Andre smiling. He is happy playing with his fire truck!"*, "
Bed Time 	• Create a quiet space by dimming lights, turning off screens, and minimizing household distractions • Figure out a transition strategy that helps support the child in getting ready to sleep (e.g., get on pajamas, pick out a book, tuck child in bed). • Comfort child if they have a difficult time transitioning to bed. • Give child a special blankie or stuffed animal to take to bed with them. • Read bedtime stories that discuss or highlight different character's feelings. Find books that show characters being empathetic to one another. • Notice and comment on child's reactions. Label feelings. *("You look tired. It's okay to go to sleep". "It's okay, I am right here. You don't have to be worried.")*
Toileting/Dressing 	• Make silly faces at child while you change or dress them. Wait for child to imitate back. If child makes a different face, copy them back. • Notice and comment on child's reactions. Label feelings. ("*You like your new outfit. It makes you happy.*") • For toddlers who are starting to potty train, or are potty trained, read stories with them as they sit on the potty. Choose stories that discuss or highlight different character's feelings. Find books that show characters being empathetic to one another. • Validate child's feelings if they become upset ("*It's okay, we will be done soon*") and comfort them.
Outings	• Plan errands around the child's schedule so that they can keep a consistent routine. • Make sure child is fed, changed, and well rested before heading out.

	• Reassure child when you go into unfamiliar places *("It's okay, I am here with you. You can stay close to me", "We are going to your new friend's house. We are going to have fun!"*) • Point out and label other children's feelings when you are out and about (*"That child sounds sad. Her Daddy is going to help her."*) • Model empathy when a friend's child is upset or hurt *("It looks like Jenna got hurt. Let's go see if she is okay.")*

Strategies for Encouraging Empathy

The following suggestions are strategies you can promote with caregivers to encourage foundational skills related to the development of empathy. Help caregivers choose and implement the following strategies during the "Try Something" component of the teaching sequence. The SELECT Activities for this benchmark each incorporate some of the strategies from this list. There is also a section where you can write in suggested strategies.

When deciding on what strategies to use with families it is important to understand the underlying circumstances that may be impacting the child's ability to learn and use skills related to empathy. Understanding the child and caregiver's temperament, environmental factors, and the child's developmental level will help you choose appropriate adaptations and strategies. In addition, support caregivers in thinking about why their child.

STRATEGIES

Ask & Wait. Ask the child simple questions about emotions throughout the day and wait for their response. For example, during outings when another child is crying ask, "*Why do you think he is crying*?" During playtime ask the child, "*You gave her the toy. How did that make her feel*?" Ask open-ended questions, "*How do you think she is feeling*?" (4.3)

Book Time. During your reading times pick out books that talk about feelings and where the characters show empathy. As you read books point to the character's faces and label their emotions (e.g., "*Her friend looks sad*"). Point out ways the characters help others (e.g., *"She is sharing her toy to help him feel better"*) (4.3)

Call on Child! Call to the child by name to get their attention. Use motion or additional sounds if they aren't responding (e.g., fly a favorite toy towards them making swooshing noises). When the child looks at you show excitement, make an animated face, and greet them ("*Hi Carlos! I'm happy to see you!").* See if child matches your excited expressions. (4.1)

Catch Your Child Being Caring Notice and acknowledge when the child does something caring towards you or another person. Be specific in describing what the child did and how it makes the other person feel ("*Thank you for giving me a hug, that makes me feel good!*", "*You gave Daniel your toy to play with. That made him so happy*!"). (4.2, 4.3)

Copy Child: Join child in their activities and imitate their expressions and emotional responses. For example, if child is clapping and laughing, clap and laugh with the. Wait for the child to respond, and imitate back. Continue to do this back and forth exchange. Make a new expression and wait to see how the child responds. (4.1)

Exaggerate. Make exaggerated faces to demonstrate how you or someone else is feeling. Label the feelings when you make the face. *("I feel so sad"* and give a sad face, *"That made me happy!"* and give a big smile). See if the child will make the faces back at you. (4.1)

Gentle Touch. Use gentle touch (e.g., rubbing back, massaging their legs, giving a hug) to start an interaction with the child. In addition, respond to the child's distress by using gentle touch. This helps the child learn that touch can be a way to show care for another person. (4.2)

Help Child See. Make sure the child is an area where they can have interactions with others (e.g. playing in the living room versus their bedroom). Set them up so they can see and participate in what is happening around them. For example, place child near siblings or peers in a play area so they can watch and join in. Position child so they are face-to-face with you or others. (4.1)

Make it a Game. Turn daily interactions with the child into a fun game. Play peek-a-book with a washcloth during bathing, or clothes when folding laundry. Exaggerate your voice and reactions to show happiness and surprise. Respond to child's smiles and giggles. (4.1)

Name Feelings. Help the child name their own feelings and the feelings of others. Start by noticing the child's feelings and labeling them (*"You have a big frown. You look mad").* Help the child notice feelings that are happening around them. Label what the feeling is and describe it *("Look, Hannah is laughing. She is happy going down the slide!"*). Encourage child to think about what they can do ("*Jerome looks sad. What can we do to make him feel better*?"(4.2, 4.3)

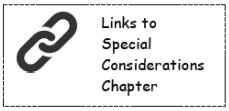
Notice and Respond to Others' Feelings. Point out to the child when another person is upset. Prompt them to think about what the child is feeling and what they can do to comfort the other person. For example, when a younger sibling is crying ask them "*Oh, look at Eli he seems sad. What should we do*?" (4.2, 4.3)

Pretend Play. During playtime help the child act out scenarios where you are caring for others. For example, put a "sick" child doll to bed and take care of her by taking her temperature and patting her gently. (4.1, 4.2, 4.3)

Show Child How to Care. Be consistent in responding to the child in a caring way when they are upset. Model how to show empathy through words (e.g. *"Did that scare you? It's okay, I am here")* and actions (e.g. hold child close and rub their back). Help child learn how to care for others by showing them how to respond to another's distress. For example, when a sibling is upset tell them "*It looks like Hannah is sad. I'm going to give her a special blankie*." (4.2, 4.3)

Sing Along. Sing or talk to the child during all routines, leaving pauses for the child to respond. Incorporate songs that talk about emotions (e.g., "If You're Happy and You Know It") and use exaggerated expressions to act out the emotions. (4.1)

Special Considerations



A child's social emotional skills can be impacted by other special considerations, such as physical and environmental needs. For example, a child with hearing loss may not be as responsive to their caregiver's initiations. A child who is medically fragile may have significantly fewer opportunities to interact with peers. Children who experience these types of concerns benefit from additional adaptations and strategies to support their social emotional growth. As you get to know the children and families you are working with monitor for special considerations that could be impacting the child's social emotional skills. Refer to the *Special Considerations* Chapter for additional information and strategies specific to working with young children who have any of the following concerns:

- Hearing loss
- Visual impairment
- Motor concerns
- Feeding concerns
- Medically fragile

The table below provides a quick guide for monitoring hearing, vision, and motor concerns.

Signs of possible hearing concerns	✓ Child doesn't respond to sounds ✓ Child doesn't imitate sounds or words ✓ Child isn't using words or 1-2 word sentences ✓ Child doesn't follow simple commands ✓ Child doesn't point to common objects or body parts when named ✓ Child doesn't respond to questions
Signs of possible vision concerns	✓ Child's eyes cross inward or drift ✓ Child's eyes don't appear to be working together ✓ Child has difficulty tracking objects ✓ Child sits very close to television or holds books up close to face ✓ Child's eyes are sensitive to light
Signs of possible motor concerns	✓ Child doesn't walk by 18 months ✓ Child has stiff limbs ✓ Child has muscles that seem floppy or loose ✓ Child only walks on their toes ✓ Child has trouble grasping and holding objects (e.g., utensils, crayons) ✓ Child has a difficult time feeding themselves ✓ Child uses one hand predominately ✓ Child favors use of one side of their body

SELECT Activities that Address Empathy

Caregivers can focus on promoting their child's development of empathy by implementing the following SELECT activities. They have been created with an emphasis on common daily routines: diapering, bathing, eating, time to play, going on an outing, and bedtime. Encourage the family to choose a naturally occurring routine to try out the ideas you share. Use the teaching sequence to coach them in how to use the activity with their child.

APPENDIX B

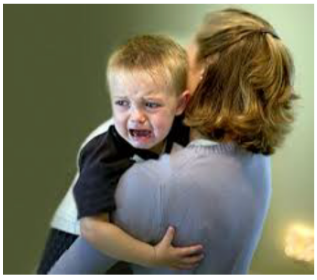
SELECT Intervention Parent Guide for Benchmark 4.0

BENCHMARK INTRODUCTION

SEAM BENCHMARK C 4.0*: Toddler Begins to Show Empathy for Others*

Empathy refers to the ability to imagine how someone else is feeling and respond with care. Empathy is a complex skill that takes many years to develop. At this age, toddlers are not yet able to experience and show true empathy. However, this is an important time for your child to learn some of the skills that lead up to empathy. For example, your child is just starting to notice that other people have feelings. You can help by pointing out other people's feelings and talking to your child about how they can respond.

- Learning how to pay attention to and respond to another person's feelings helps children build strong relationships.
- Children must first have their own needs met and feelings acknowledged before they are able to focus on the needs and feelings of others.
- Your child learns empathy from you. When you respond to them, or others, with care it helps them learn how to be caring too.



SEAM items that show how children begin to show empathy for others.

4.1 Child catches response to others' emotional response.

4.2 Child tries to comfort others when they are upset.

4.3 Child uses words to talk about another child's emotions.

Keep in Mind

I feel a lot! Your child experiences many feelings such as happiness, sadness, fear and anger. Acknowledge your child's feelings and empathize with them. This will help them learn how to respond to the feelings of others.

Talk about your own feelings. Share your own feelings throughout the day. This helps your child start to notice that other people have feelings too—sometimes feelings that are different from their own. When you talk about your feelings it helps your child see and understand what different feelings look like. For example, *"**I'm so happy!** We're having so much fun laughing and playing at the park.!" or "**I'm so mad.** I just broke my favorite glass."*

Monitor Screen Time. If your child ever watches screens, monitor what they see and hear. Make sure images provide caring, loving messages about how to treat and take care of each other. Watch shows together and explain what they are seeing. *"Oh look. He fell down. His friend is helping him get up."*

Examples of Strategies

The following strategies can be used during daily routines to support your child's ability to begin showing empathy for others.

Skill *(SEAM Item 4.1): Matches response to others' emotional response.*

Exaggerate. Make exaggerated faces to demonstrate how you or someone else is feeling. Name the feelings when you make the face. Say, "*I'm so sad"* while making a sad face. Does your child make the face back at you?

Pretend Play. During playtime, act out situations where characters express different emotions. Model emotional reactions that match the situation. For example, set up a birthday party and "celebrate" by laughing and singing. Encourage your child to laugh and sing along with you. Pretend that a teddy bear is sick. Put him to bed. Act concerned and tell your child, "*Let's be quiet so Teddy can sleep. He feels so sick."* See if your child acts concerned and gets quiet with you.

Skill *(SEAM Item 4.2): Tries to comfort others when they are upset.*

Show Your Child How to Care. Throughout the day, help your child notice other people's feelings and show them how to respond in a caring way. For example, when their sibling is upset, say "*It looks like your sister is sad. Let's get her special blankie and give it to her."*

Book Time. Pick out books that talk about feelings and show characters that are caring towards others. Point to the characters' faces and label their emotions. "*Look at her face. She looks sad."* Point out ways the characters help each other. "*He is sharing his toy to help her feel better."*

Catch Your Child Being Caring. Notice and acknowledge when your child does something caring for another person. "*You gave Daniel your toy to play with. That made him so happy*!"

Skill *(SEAM Item 4.3): Uses words to talk about another child's emotions.*

Name Feelings. As you see other people express feelings, point them out and name them for your child. "*Look, Hannah is smiling. She is happy going down the slide!* "

Ask & Wait. Ask your child simple questions about other people's emotions. For example, "*Why is Charlie crying?"* or "*You gave her a toy. How did that make her feel*?" Wait for your child's response.

Example of How to Use a Strategy During a Routine

Here is one example of how you can use a strategy to support a child beginning to show empathy for others within a daily routine.

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Skill: *Uses words to talk about another child's emotions. (SEAM Item 4.3)*

Routine: Time to Play

Strategy: Ask and Wait

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Child*
Ask & Wait. During a play date with a friend, stay close and notice the children's feelings during play. When different emotions come up, ask child to describe how their friend feels. "*You have all the blocks and he has none. How do you think he feels?"*	☺ **I'm Engaged.** Child says, "*He sad*." ☹ **I'm Not Engaged.** Child does not respond.	☺ Respond to their comment. *"That's right. He's sad. What can we do to help?"* ☹ Draw attention to the friend's face and name their feelings. **"***Look at his face. He's sad because he has no blocks.***"** Comfort the other child. *"Here Jamal. You can have some of my blocks."*

APPENDIX C
SELECT Intervention Example Play Activity for Benchmark 4.0

SEAM BENCHMARK C 4.0: *TODDLER BEGINS TO SHOW EMPATHY FOR OTHERS*

Developing an Awareness of Other's Feelings: Time to Play!

Empathy refers to the ability to imagine how someone else is feeling and respond with care. Empathy takes time to develop. Your child first starts to develop skills related to empathy by becoming aware of their own feelings as well as the emotions of others. Playtime provides many opportunities to notice, point out, and respond to your child's feelings. Activities such as pretend play can also help your child act out the feelings of others. During play you can demonstrate empathy toward your child by responding to their positive emotions with joy and their difficult feelings with compassion.

Tips:

- Find times to play when your child is rested, fed and you can focus. Turn off screens and mute phones to minimize distractions.
- Gather materials for social play that your child enjoys (e.g., favorite stuffed animals, dress up clothes).
- Include books with pictures that show different emotions to help teach empathy.

Ideas:

- Get face to face with your child so they can watch your face and try to copy your expressions.
- Use mirrors to explore different facial expressions. Exaggerate your facial expressions and the tone of your voice to act out emotions.
- Create simple scenarios with toys to express different feelings during play. For example, play doctor or veterinarian with dolls or stuffed animals to practice caring for others. *"Ooo. Poor kitty. I'm sad she is sick."*
- Join your child in play. Name their feelings, and yours, as you play together. *"Look at that tall tower! You look proud! I am proud of you!"*
- If your child gets upset, provide comfort while naming their emotion. *"That's hard. You look frustrated. Can I give you a hug?"*

Think About:

- Does your child act out different feelings and facial expressions during play?
- Does your child use any emotion words? What emotions words do you use with them?
- How does your child react when other people are upset? Do they show concern?

Strategies for Promoting an Awareness of Other's Feelings During Play Time

Here is an example of how the strategy **Pretend Play** can be used to support a child in learning about the feelings of others.

Skill: *Toddler tries to comfort others when upset (SEAM Item 4.2)*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Child*
Pretend Play. Bring a doll or stuffed animal over to child and say, "*Uh oh, Dolly's got an owie. She's crying. She's sad. Can you hold her and give her kisses?*"	☺ **I'm Interested.** Child hugs, kisses or comforts doll. ☹ **I'm Not Interested.** Child does not respond.	☺ Acknowledge child's caring response as comforting to the doll. "*Oh, Dolly feels better. Your hugs really helped her.*" ☹ Act out getting an owie with the doll. For example, have Dolly fall down. "*Oh no--Dollie fell!. We need to help her*!" Model caring for Dolly. Ask child to help.

Strategies to Try with My Child

My Child's Focus Skill: _____

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
	☺ ☹	☺ ☹
	☺ ☹	☺ ☹

Don't Forget! Activities should be supervised at all times by an adult. Any materials, food, or toy given to a young child should be reviewed for safety.

APPENDIX D

"Try, Watch & Wait, Respond" Planning Sheets

Child's Name: _Kaiden_____ Provider's name:___1.1.6_____

Target Benchmark Skill: *7.1. Toddler points to self in pictures.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
SIMPLE CHOICES (Provide a picture of 2 different people and ask "Which one is you?" or look at the mirror and ask "Which one is you?")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards choices • Point out to the child on the picture or mirror • Hold the child's hand gesture toward the child
THAT'S YOU (Point out to the child on the picture or mirror and asks "Where is X?"	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Give verbal support (Show me X) • Point out to the child • Hold the child's hand gesture toward the child

SHOW CHILD HOW (Ask the child where you are and points out to yourself, then ask "Show me where you are")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards picture or mirror, repeating "Show me where you are" • Point out to the child • Hold the child's hand gesture toward the child

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Kaiden_____ Provider's name:___1.1.6_____

Target Benchmark Skill: *1.3: Toddler talks and plays with whom he knows well*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
MAKE IT A GAME (Turn the interaction into a fun game for him by silly and exaggerated movement in his eye sight)	☺ Child engages in reciprocal play with caregiver by imitating caregiver's play actions, taking turns, or visually attending to caregiver during play. ☹ Child does not interact with caregiver, does not take turns or imitate caregiver's play actions.	☺ Reinforce the child respond by continuing the activity and praise "I like playing with you" ☹ Try other strategies (Copy child, piece by piece)
COPY CHILD (Join in his game and imitate his sounds and actions. Say or do something new and wait if he imitates you)	☺ Child engages in reciprocal play with caregiver by imitating caregiver's play actions, taking turns, or visually attending to caregiver during play. ☹ Child does not interact with caregiver, does not take turns or imitate caregiver's play actions.	☺ Reinforce the child respond by continuing the activity and praise "I like playing with you" ☹ Offer more support: • Tell him "Now you do it" • Model the action again • Provide gentle physical guide

PIECE BY PIECE (Give small amounts of toys at a time to encourage him to request more)	☺ Child engages in reciprocal play with caregiver by imitating caregiver's play actions, taking turns, or visually attending to caregiver during play. ☹ Child does not interact with caregiver, does not take turns or imitate caregiver's play actions.	☺ Reinforce the child respond by continuing the activity and praise "I like playing with you" ☹ Offer more support • Verbal support (Ask "What do you want?) • Show child how

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Quinn_____ Provider's name:___1.1.4_____

Target Benchmark Skill: *5.1. Toddler makes eye contact with caregivers.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
PAUSE THE ACTION (When playing with him, pause the activity to encourage him to communicate with you through eye gaze)	☺ Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second. ☹ Child does not look at the caregiver.	☺ Reinforce the child respond, tell "That's great looking!" ☹ Try next strategy **(TRY SOMETHING EXCITING OR NEW)**
TRY SOMETHING EXCITING OR NEW (Include new toys or activities to encourage him to look at you. These could be a light up toy in front of you)	☺ Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second. ☹ Child does not look at the caregiver.	☺ Reinforce the child respond, tell "That's great looking!" ☹ Try next strategy **(CALL ON CHILD)**
CALL ON CHILD (Call him by name to get his attention)	☺ Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second. ☹ Child does not look at the caregiver.	☺ Reinforce the child respond, tell "That's great looking!" ☹ Offer more support: • Gesture towards your eyes • Tap him and gesture towards your eyes • Position him to face you

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Quinn_____ Provider's name:___1.1.4_____

Target Benchmark Skill: *1.3: Toddler talks and plays with whom he knows well*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
MAKE IT A GAME (Turn the interaction into a fun game for him)	☺ Child engages in reciprocal play, imitates caregiver's play actions, attends to caregiver during play. ☹ Child does not interact with caregiver, does not take turns or imitate caregiver's play actions.	☺ Reinforce the child respond by continuing the activity and praise "I like playing with you" ☹ Try other strategies (Pause the action or point and talk about it)
PAUSE THE ACTION (Stop the interaction or games to encourage him to communicate that he wants to continue) (Stop tickling and wait for his reaction or eye contact/gesture)	☺ Child engages in reciprocal play, imitates caregiver's play actions, attends to caregiver during play. ☹ Child does not interact with caregiver, does not take turns or imitate caregiver's play actions.	☺ Reinforce the child respond by continuing the activity and praise "I like playing with you" ☹ Offer more support: • Verbal support ("What do you want?") • Model sign • Show child how "You want more"

POINT AND TALK ABOUT IT (Point to objects, people or events in the environment to draw his attention to what is happening around him) "I am driving the fire truck!"	☺ Child engages in reciprocal play, imitates caregiver's play actions, attends to caregiver during play. ☹ Child does not interact with caregiver, does not take turns or imitate caregiver's play actions.	☺ Reinforce the child respond by continuing the activity and praise "I like playing with you" ☹ Offer more support: • Verbal support ("Look at my truck!") • Tap the child to draw attention • Position him towards the event

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Jake_____ Provider's name:___1.1.4_____

Target Benchmark Skill: *9.1. Toddler cooperates with simple requests.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
KEEP IT SIMPLE (Give short and simple instructions "Hold cup", "Get shoes", "Put in" instead of stating directions as questions)	☺ Child follows directions by engaging in the behavior that was asked by caregiver within 5 seconds following the direction. ☹ Child does not follow direction, walks away, engages in other behaviors.	☺ Reinforce the child respond, tell "Good listening!" or "Great job" ☹ Offer more support: • Gesture towards the task • Show child how • Gentle physical guidance
SIMPLE CHOICES (Offer child 2 choices "Want to put the bear on or the bunny on?") Note: This strategy may interrupt the natural play interaction, you can use this when and if you think is necessary.	☺ Child follows directions by engaging in the behavior that was asked by caregiver within 5 seconds following the direction. ☹ Child does not follow direction, walks away, engages in other behaviors.	☺ Reinforce the child respond, tell "Good listening!" or "Great job" ☹ Offer more support: • Gesture towards the choices • Show child how

FIRST/THEN (Verbally state the direction as the first task, and then a preferred activity "First clean up, then play") Note: This strategy may interrupt the natural play interaction, you can use this when and if you think is necessary.	☺ Child follows directions by engaging in the behavior that was asked by caregiver within 5 seconds following the direction. ☹ Child does not follow direction, walks away, engages in other behaviors.	☺ Reinforce the child respond, tell "Good listening!" or "Great job" ☹ Offer more support: • Gesture towards the task and repeat first/then • Gentle physical guidance • Hand over hand, position the whole body

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Jake_____ Provider's name:___1.1.4_____

Target Benchmark Skill: *1.4: Toddler initiates and responds when you communicate with him.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
ASK & WAIT (Withhold materials he might ask for, and ask child "What do you want?" or "Do you want more?")	☺ Child uses a gesture (finger point) or sign to request an item while making eye contact with the caregiver who has access to the item ☹ Child does not gesture towards item, does not react.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Try the next strategy: **SIMPLE CHOICES**
SIMPLE CHOICES (Show the child choices of 2 items/toys and ask "Which one do you want?" or "Want X or Y?"	☺ Child uses a gesture (finger point) or sign to request an item while making eye contact with the caregiver who has access to the item ☹ Child does not gesture towards item, does not react.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Try the next strategy: **SHOW CHILD HOW**
SHOW CHILD HOW (Model how the child can ask for what he needs, "You want the car" and gesture towards the car)	☺ Child uses a gesture (finger point) or sign to request an item while making eye contact with the caregiver who has access to the item ☹ Child does not gesture towards item, does not react.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Model the appropriate request by saying and gesturing what is expected from the child (e.g., "You want more")

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Jody_____ Provider's name:___1.1.3_____

Target Benchmark Skill: *5.2. Toddler focuses on events that you show him.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
POINT AND TALK ABOUT IT (Point to an event or object around and describe what you see "Look, there is the teddy bear!")	☺ Child moves the head or torso to shift the eye gaze towards an item or event pointed out by parent for at least 2 seconds. ☹ Child either does not look at event you show him or looks elsewhere.	☺ Reinforce the child respond, tell "Yeah you saw the __!" ☹ Try next strategy: **GENTLE TOUCH**
GENTLE TOUCH (Tap on his shoulder gently to get his attention and point at the event/object again and describe)	☺ Child moves the head or torso to shift the eye gaze towards an item or event pointed out by parent for at least 2 seconds. ☹ Child either does not look at event you show him or looks elsewhere.	☺ Reinforce the child respond, tell "Yeah you saw the __!" • ☹ Try next strategy: **HELP CHILD SEE**
HELP CHILD SEE (Position his torso and head towards the event/object and repeat pointing and describing)	☺ Child moves the head or torso to shift the eye gaze towards an item or event pointed out by parent for at least 2 seconds. ☹ Child either does not look at event you show him or looks elsewhere.	☺ Reinforce the child respond, tell "Yeah you saw the __!" ☹ Make a comment about the event/object.

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Jody_____ Provider's name:___1.1.3_____

Target Benchmark Skill: *7.1. Toddler points to self in picture.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
SIMPLE CHOICES (Provide a picture of 2 different people and ask "Which one is you?" or look at the mirror and ask "Which one is you?")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards choices • Point out to the child on the picture or mirror • Hold the child's hand gesture toward the child
THAT'S YOU (Point out to the child on the picture or mirror and asks "Where is X?"	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Give verbal support (Show me X) • Point out to the child • Hold the child's hand gesture toward the child

SHOW CHILD HOW (Ask the child where you are and point out to yourself, then ask "Show me where you are")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards picture or mirror, repeating "Show me where you are" • Point out to the child • Hold the child's hand gesture toward the child

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Logan_____ Provider's name:___1.1.3_____

Target Benchmark Skill: 8.4.*Toddler looks at book or listens to story for 5 minutes or more.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
POINT AND TALK ABOUT IT (point out to pictures to draw his attention, describe what's happening)	☺ Child looks at the book, listens to caregiver while remaining eye gaze on the book or holding the book and turning the pages. ☹ Child does not look at the book, walks away, pushes the book away, etc.	☺ Reinforce the child respond by providing praise "I love reading a book with you", "Great job reading the book with me!" ☹ Try the next strategy: **EXAGGERATE**
EXAGGERATE (Exaggerate facial expressions, movements, and sounds to gain his interest)	☺ Child looks at the book, listens to caregiver while remaining eye gaze on the book or holding the book and turning the pages. ☹ Child does not look at the book, walks away, pushes the book away, etc.	☺ Reinforce the child respond by providing praise "I love reading a book with you", "Great job reading the book with me!" ☹ Try the next strategy: **FIRST/THEN**
FIRST/THEN (let him know that he will do something he likes after the book "First book, then it's time for ___"	☺ Child looks at the book, listens to caregiver while remaining eye gaze on the book or holding the book and turning the pages. ☹ Child does not look at the book, walks away, pushes the book away, etc.	☺ Reinforce the child respond by providing praise "I love reading a book with you", "Great job reading the book with me!" ☹ Offer more support: • Use the actual object to show "First book, then __"

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Logan_____ Provider's name:___1.1.3_____

Target Benchmark Skill: *1.3. Toddler talks and plays with other people whom he knows well.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
PIECE BY PIECE (give small amounts of toy items at a time to encourage him to request for more)	☺ Child asks for a specific item during play with verbal request or approximations along with eye contact with the caregiver who has access to the items.☹ Child does not interact or request or walks away.	☺ Reinforce the child respond by providing the item and praise "Great asking!" and say the single word "__" ☹ Try next strategy: **SIMPLE CHOICES**
SIMPLE CHOICES (provide 2 choices for pieces of toys to encourage him to request for one of them, you can ask "Car or train?")	☺ Child asks for a specific item during play with verbal request or approximations along with eye contact with the caregiver who has access to the items. ☹ Child does not interact or request or walks away.	☺ Reinforce the child respond by providing the item and praise "Great asking!" and say the single word "__" ☹ Try the next strategy: **SHOW CHILD HOW**

SHOW CHILD HOW (Model how to say things he wants “Car!”	☺ Child asks for a specific item during play with verbal request or approximations along with eye contact with the caregiver who has access to the items. ☹ Child does not interact or request or walks away.	☺ Reinforce the child respond by providing the item and praise “Great asking!” and say the word “__” ☹ Offer more support: • Ask the child to say the item. For example “Car?” • Ask the child to say the approximation of the item “say ca”

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Mike_____ Provider's name:___1.1.6_____

Target Benchmark Skill: *2.4. Toddler identifies own emotions*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
BOOK TIME (Read to him, choose books with emotions. As you read, point to pictures that show feelings, label them, and ask questions)	☺ Child verbally labels own emotions such as "happy", "sad", "mad", or points to a picture that matches his emotions when asked "how are you feeling?" on a book or pieces with faces on. ☹ Child either does not express verbally or by point, walks away, etc.	☺ Reinforce the child respond by praising him. ☹ Offer more support: • Model the emotions (Facially and verbally) • Ask the child to do it
PRETEND PLAY (Give feelings to toys/animals, label those feelings and encourage him to imitate or name his own feelings)	☺ Child verbally labels own emotions such as "happy", "sad", "mad", or points to a picture that matches his emotions when asked "how are you feeling?" on a book or pieces with faces on. ☹ Child either does not express verbally or by point, walks away, etc.	☺ Reinforce the child respond by praising him. ☹ Offer more support: • Ask him to imitate • Model and ask him to imitate • Show him how he can imitate by providing physical guidance (if applicable)

SIMPLE CHOICES (Catch him demonstrating emotions and ask him how he feels by giving him choices. “You are smiling, are you happy or sad?”)	☺ Child verbally labels own emotions such as “happy”, “sad”, “mad”, or points to a picture that matches his emotions when asked “how are you feeling?” on a book or pieces with faces on. ☹ Child either does not express verbally or by point, walks away, etc.	☺ Reinforce the child respond by praising him. ☹ Offer more support: • Model (Show an emotion and name it) • Repeat the choices • Show child how

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Mike_____ Provider's name:___1.1.6_____

Target Benchmark Skill: *1.1: Toddler lets you know, if he needs help, attention, or comfort.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
ASK & WAIT (Ask child "What do you need?)	☺ Child verbally requests for what he needs, may say "help", "go", "more", "hug", etc. ☹ Child does not interact, does not gesture or vocalize.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Try the next strategy: **OFFER AND WAIT**
OFFER AND WAIT (If he needs support asking for something, offer him what you think he needs by holding out, wait for him to respond.)	☺ Child verbally requests for what he needs, may say "help", "go", "more", "hug", etc. ☹ Child does not interact, does not gesture or vocalize.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Try the next strategy: **SHOW CHILD HOW**
SHOW CHILD HOW (Model how the child can ask for what he needs, "You want help, you can say help")	☺ Child verbally requests for what he needs, may say "help", "go", "more", "hug", etc. ☹ Child does not interact, does not gesture or vocalize.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Model the appropriate request by saying what is expected from the child (e.g., "You need help")

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Sarah_____ Provider's name:___1.1.6_____

Target Benchmark Skill: *5.1: Toddler makes eye contact with caregivers.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
PAUSE THE ACTION (When playing with him, pause the activity to encourage him to communicate with you through eye gaze)	☺ Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second. ☹ Child does not look at the caregiver.	☺ Reinforce the child respond, tell "That's great looking!" ☹ Try next strategy **(TRY SOMETHING EXCITING OR NEW)**
TRY SOMETHING EXCITING OR NEW (Include new toys or activities to encourage him to look at you. These could be a light up toy in front of you)	☺ Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second. ☹ Child does not look at the caregiver.	☺ Reinforce the child respond, tell "That's great looking!" ☹ Try next strategy **(CALL ON CHILD)**
CALL ON CHILD (Call him by name to get his attention)	☺ Child shift the eye gaze towards the caregiver's eyes and remains for longer than 1 second. ☹ Child does not look at the caregiver.	☺ Reinforce the child respond, tell "That's great looking!" ☹ Offer more support: • Gesture towards your eyes • Tap him and gesture towards your eyes • Position him to face you

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Sarah_____ Provider's name:___1.1.6_____

Target Benchmark Skill: *7.1. Toddler points to self in picture.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
SIMPLE CHOICES (Provide a picture of 2 different people and ask "Which one is you?" or look at the mirror and ask "Which one is you?")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards choices • Point out to the child on the picture or mirror • Hold the child's hand gesture toward the child
THAT'S YOU (Point out to the child on the picture or mirror and asks "Where is X?"	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Give verbal support (Show me X) • Point out to the child • Hold the child's hand gesture toward the child

SHOW CHILD HOW (Ask the child where you are and points out to yourself, then ask "Show me where you are")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards picture or mirror, repeating "Show me where you are" • Point out to the child • Hold the child's hand gesture toward the child

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Nate_____ Provider's name:___1.1.3_____

Target Benchmark Skill: *7.1. Toddler points to self in picture.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
SIMPLE CHOICES (Provide a picture of 2 different people and ask "Which one is you?" or look at the mirror and ask "Which one is you?")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards choices • Point out to the child on the picture or mirror • Hold the child's hand gesture toward the child
THAT'S YOU (Point out to the child on the picture or mirror and asks "Where is X?"	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Give verbal support (Show me X) • Point out to the child • Hold the child's hand gesture toward the child

SHOW CHILD HOW (Ask the child where you are and points out to yourself, then ask "Show me where you are")	☺ Child shifts their eye gaze towards the picture or the mirror and uses finger point to point to themselves in the picture or in the mirror. ☹ Child either does not look at the picture, does not point to any picture, or does not point to himself/herself.	☺ Reinforce the child respond, tell "That is right, that's you!" ☹ Offer more support: • Gesture towards picture or mirror, repeating "Show me where you are" • Point out to the child • Hold the child's hand gesture toward the child

"Try, Watch & Wait, Respond" Planning Sheet

Child's Name: _Nate_____ Provider's name:___1.1.3_____

Target Benchmark Skill: *1.4: Toddler initiates and responds when you communicate with him.*

Try *a Strategy*	**Watch and Wait** *for Child's Response*	**Respond** *to Your Child*
ASK & WAIT (Ask child "What do you want?" or "Do you want more?")	☺ Child verbally requests and activity to continue or an item, may say "I want more", "go again", "jellybeans please". ☹ Child does not interact, does not gesture or vocalize.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Try the next strategy: **SIMPLE CHOICES**
SIMPLE CHOICES (Ask child "Which one do you want?" or "Want X or Y?"	☺ Child verbally requests and activity to continue or an item, may say "I want more", "go again", "jellybeans please". ☹ Child does not interact, does not gesture or vocalize.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Try the next strategy: **SHOW CHILD HOW**
SHOW CHILD HOW (Model how the child can ask for what he/she needs, "You want more, you can say more")	☺ Child verbally requests and activity to continue or an item, may say "I want more", "go again", "jellybeans please". ☹ Child does not interact, does not gesture or vocalize.	☺ Reinforce the child respond by continuing the activity and praise "Nice asking!" ☹ Model the appropriate request by saying what is expected from the child (e.g., "You want more")

APPENDIX E
Social Emotional Assessment Measure- Toddler

SEAM™
Social-Emotional Assessment/ Evaluation Measure
RESEARCH EDITION

Toddler

for developmental range 18–36 months

Child's name: _____ Child's date of birth: _____

Family's name: _____ Today's date: _____

Name of person completing form: _____ Date of administration: _____

INSTRUCTIONS: Please read each SEAM item and think about your child's behavior before selecting an answer. You may need to observe your child before selecting a response to the item. Each item is accompanied by several examples to give you ideas about how the behavior *might* look. These behaviors may be displayed in different ways depending on your child's age, the developmental stage of your child, and the expectations of your culture and family. The way in which your child displays these behaviors may or may not be illustrated by the examples. It is not expected that all children will exhibit every behavior.

The four scoring options include *very true*, *somewhat true*, *rarely true*, and *not true*. For example, when indicating whether your child talks and plays with adults he knows well, check the box under

- *Very true* if your child talks and plays with adults he knows well consistently or most of the time
- *Somewhat true* if your child talks and plays with familiar adults sometimes, though not consistently
- *Rarely true* if your child talks and plays with familiar adults rarely or only once in a while
- *Not true* if your child does not talk and play with familiar adults

In addition, each item has a circle that you can check to indicate if an item is a concern. Each item also has a triangle that you can check if you would like this item to become a focus area for your child.

Please read each item carefully and check the box ✓ that best describes your child's behavior. Check the circle ✓ if this item is a concern. Check the triangle ✓ if this item will become a focus area for your child.

	Very true	Somewhat true	Rarely true	Not true	Concern	Focus area
C-1.0 TODDLER PARTICIPATES IN HEALTHY INTERACTIONS						
1.1 Toddler lets you know if he needs help, attention, or comfort.	☐	☐	☐	☐	○	△
Some examples might be *Asks for a drink of water by pointing or showing you* *Pulls on you or other adult or raises arms to be picked up* *Goes to you or other familiar adults when hurt* *Seeks attention from you and other familiar adults; babbles and "shows off" for you* *Asks for a drink of water using one- or two-word utterances* *Calls for you when he needs help (e.g., "Daddy help")*						
1.2 Toddler initiates and responds to affection.	☐	☐	☐	☐	○	△
Some examples might be *Comes when you ask or gesture for her to follow* *Hugs you; smiles back at you* *Hugs and kisses people, pets, and stuffed animals* *Returns hugs, kisses, or other affectionate gestures* *Walks to you with arms out, wanting a hug*						
1.3 Toddler talks and plays with people whom he knows well.	☐	☐	☐	☐	○	△
Some examples might be *Points to show you things* *Begins to include you or siblings in play, pretends to offer you or others food, tries to care for baby sibling or dolls* *Uses one or two words to communicate with peers (e.g., "Car go?")* *Talks to you about his activities (e.g., "I push car")*						
1.4 Toddler initiates and responds when you communicate with her.	☐	☐	☐	☐	○	△
Some examples might be *Answers your questions with one word (e.g., "juice")* *Asks questions (e.g., "Where mama?"), says, "Mama come" when she wants you to play* *Asks many questions (e.g., "Why?" "What?" "How?")*						

Please read each item carefully and check the box ✓ that best describes your child's behavior. Check the circle ✓ if this item is a concern. Check the triangle ✓ if this item will become a focus area for your child.

	Very true	Somewhat true	Rarely true	Not true	Concern	Focus area
C-2.0 TODDLER EXPRESSES A RANGE OF EMOTIONS						
2.1 Toddler smiles and laughs.	☐	☐	☐	☐	○	△
Some examples might be *Smiles when caregiver returns* *Smiles and laughs at people and children*						
2.2 Toddler expresses a range of emotions in a variety of ways.	☐	☐	☐	☐	○	△
Some examples might be *Expresses emotions physically and verbally (e.g., making faces and crying when frustrated, laughing and giggling when happy)* *Expresses a variety of feelings (e.g., happiness, sadness, fear, surprise, anger)*						
2.3 Toddler identifies own emotions, with your help.	☐	☐	☐	☐	○	△
Some examples might be *Can identify the feelings with you and make the feeling faces* *Answers accurately yes or no when asked if mad*						
2.4 Toddler identifies own emotions.	☐	☐	☐	☐	○	△
Some examples might be *Protests "No," says, "Me sad"* *Expresses why he is laughing (e.g., "Because I am happy")* *Says, "I'm mad at you," when angry*						
C-3.0 TODDLER REGULATES OWN SOCIAL-EMOTIONAL RESPONSES						
3.1 Toddler responds to soothing when upset.	☐	☐	☐	☐	○	△
Some examples might be *Stops crying when picked up and comforted* *Resumes playing after being hugged and kissed by caregiver when upset*						
3.2 Toddler can settle self down after periods of exciting activity.	☐	☐	☐	☐	○	△
Some examples might be *Calms self with your help after a game of chase* *Sits down and calms self after an exciting activity*						

Please read each item carefully and check the box ✓ that best describes your child's behavior. Check the circle ✓ if this item is a concern. Check the triangle ✓ if this item will become a focus area for your child.

	Very true	Somewhat true	Rarely true	Not true	Concern	Focus area
3.3 Toddler can calm self when upset.	☐	☐	☐	☐	○	△
Some examples might be *Calms self within 5–10 minutes after falling (may need your help)* *Holds favorite doll or blanket to help calm self* *Uses a favorite toy or game to distract self when upset*						
C-4.0 TODDLER BEGINS TO SHOW EMPATHY FOR OTHERS						
4.1 Toddler matches response to others' emotional responses.	☐	☐	☐	☐	○	△
Some examples might be *Quiets when you are upset* *Laughs and smiles when others do so*						
4.2 Toddler tries to comfort others when they are upset.	☐	☐	☐	☐	○	△
Some examples might be *Gives crying baby a hug, leads you to soothe an upset infant* *Kisses your "owie" if you hurt yourself* *Hugs you if you are sad*						
4.3 Toddler uses words to talk about another child's emotions.	☐	☐	☐	☐	○	△
Some examples might be *Says, "Baby cry, sad" when hearing a baby crying* *Returns toy to stop crying of another child, saying, "Here toy"* *Says, "That boy is mad" about a child who is screaming* *Describes a peer's feelings when watching him cry after being dropped off at child care: "He's sad because his mom is gone"*						
C-5.0 TODDLER SHARES ATTENTION AND ENGAGES WITH OTHERS						
5.1 Toddler makes eye contact with caregivers and peers.	☐	☐	☐	☐	○	△
Some examples might be *Makes eye contact with teacher as she walks in room* *Looks at others at kitchen table during dinner*						

Please read each item carefully and check the box ✓ that best describes your child's behavior. Check the circle ✓ if this item is a concern. Check the triangle ✓ if this item will become a focus area for your child.

	Very true	Somewhat true	Rarely true	Not true	Concern	Focus area
5.2 Toddler focuses on events that you show him.	☐	☐	☐	☐	○	△
Some examples might be *Looks at books with you and labels what pictures you point at* *Follows your gaze or looks where you point* *Looks at items like fire trucks or animals pointed at by other people*						
5.3 Toddler greets you and other familiar people.	☐	☐	☐	☐	○	△
Some examples might be *Looks at and says, "Hi" to you and familiar adults* *Seeks attention from you and family members but may act shy around strangers* *Looks at and says, "Hi" to other children* *Waves to familiar people* *Greets sibling by name*						
5.4 Toddler shares in daily activities.	☐	☐	☐	☐	○	△
Some examples might be *Helps you put on shoes* *Imitates household tasks and can put some toys away with your help* *Helps with routines (e.g., putting food in grocery cart)*						
5.5 Toddler plays alongside other children.	☐	☐	☐	☐	○	△
Some examples might be *Plays side by side with other children without sharing toys or materials* *Watches other children at play* *Passes toys to other children when playing* *Has a special friend she plays alongside*						
C-6.0 TODDLER DEMONSTRATES INDEPENDENCE						
6.1 Toddler tries new tasks before seeking help.	☐	☐	☐	☐	○	△
Some examples might be *Tries repeatedly to place block in hole or piece in puzzle before seeking help* *Tries to reach toy on high shelf before asking for help* *Wants to do things by self*						

Please read each item carefully and check the box ☑ that best describes your child's behavior. Check the circle ☑ if this item is a concern. Check the triangle ☑ if this item will become a focus area for your child.

	Very true	Somewhat true	Rarely true	Not true	Concern	Focus area
6.2 Toddler can separate from you in familiar environment with minimal distress.	☐	☐	☐	☐	○	△
Some examples might be *Frets or cries only a few minutes when you depart* *Lets you leave his sight for a few minutes without showing distress* *Leaves you to join play with peers, looking to make sure you are still around* *Gives you a hug and joins peers in play when arriving at child care*						
6.3 Toddler explores new environments while maintaining some contact.	☐	☐	☐	☐	○	△
Some examples might be *Walks over to sandbox but looks back to check in with you* *Walks with friend to see a new toy while looking at your face to make sure it is okay* *Wants to do things by self while you watch (e.g., "Me do it")*						
C-7.0 TODDLER DISPLAYS A POSITIVE SELF-IMAGE						
7.1 Toddler points to self in picture.	☐	☐	☐	☐	○	△
Some examples might be *Points to self or locates own picture* *Draws simple representation of self or others*						
7.2 Toddler tells you what she did or accomplished.	☐	☐	☐	☐	○	△
Some examples might be *Smiles when you comment, "Wow, you climbed the ladder," at the park* *Begins calling attention to self (e.g., "Look at me!")* *Tells you that she made a house of blocks (may be in short form: "I build")* *Tells about trip to store (may use incomplete sentences)*						
7.3 Toddler knows personal information.	☐	☐	☐	☐	○	△
Some examples might be *Calls self by name or "me"* *Knows own name and what he likes and dislikes* *Knows gender (e.g., "I'm a boy")*						

Please read each item carefully and check the box ☑ that best describes your child's behavior. Check the circle ☑ if this item is a concern. Check the triangle ☑ if this item will become a focus area for your child.

	Very true	Somewhat true	Rarely true	Not true	Concern	Focus area
C-8.0 TODDLER REGULATES OWN ATTENTION AND ACTIVITY LEVEL						
8.1 Toddler moves from one activity to another without problems.	☐	☐	☐	☐	○	△
Some examples might be *Moves on to another activity with some help from you* *Follows familiar routine at child care* *Makes choices for play during free time*						
8.2 Toddler participates in simple games.	☐	☐	☐	☐	○	△
Some examples might be *Watches you and uses hands to sing familiar songs* *Sings nursery rhymes* *Plays Hide and Seek with you*						
8.3 Toddler stays with motor activities for 5 minutes or longer.	☐	☐	☐	☐	○	△
Some examples might be *Plays with blocks for 5 minutes or longer* *Pedals tricycle outdoors for 5 minutes or longer*						
8.4 Toddler looks at book or listens to story for 5 minutes or longer.	☐	☐	☐	☐	○	△
Some examples might be *Sits with you and looks at book for 5 minutes or longer* *Listens to story being read for 5 minutes or longer*						
C-9.0 TODDLER COOPERATES WITH DAILY ROUTINES AND REQUESTS						
9.1 Toddler cooperates with simple requests.	☐	☐	☐	☐	○	△
Some examples might be *Comes near you when you wave "come" with your hand* *Responds when you say, "Bring me your shoes"* *Can follow two-step directions (e.g., "Shut the door and take off your coat")*						
9.2 Toddler follows routines.	☐	☐	☐	☐	○	△
Some examples might be *Helps take off clothes and puts on pajamas at bedtime* *Helps get ready to travel by getting in car seat* *Follows hand-washing routine with some help* *Participates in activities with other children (e.g., singing and dancing, tumbling classes)*						

Please read each item carefully and check the box ☑ that best describes your child's behavior. Check the circle ☑ if this item is a concern. Check the triangle ☑ if this item will become a focus area for your child.

	Very true	Somewhat true	Rarely true	Not true	Concern	Focus area
C-10.0 TODDLER SHOWS A RANGE OF ADAPTIVE SKILLS						
10.1 Toddler eats and feeds self a variety of foods without problems.	☐	☐	☐	☐	○	△
Some examples might be *Uses fingers and/or tries to use spoon or fork to eat a variety of foods* *Uses utensils to eat and drinks from a cup*						
10.2 Toddler accepts changes in routines and settings.	☐	☐	☐	☐	○	△
Some examples might be *Adjusts to playing in a different area* *Eats snacks or lunch at picnic table during family outings* *Accepts changes in a familiar routine at school (e.g., field trips)*						
10.3 Toddler falls and remains asleep with few problems.	☐	☐	☐	☐	○	△
Some examples might be *Remains in bed with favorite blanket or toy until asleep* *Follows a routine (e.g., calm activities after dinner, a warm bath, reading stories or singing songs that help her get to sleep)* *Sleeps through the night (may be taking one or two daytime naps)*						
10.4 Toddler shows an interest in using the toilet.	☐	☐	☐	☐	○	△
Some examples might be *Indicates when diaper needs changing* *Pulls down pants and sits on potty chair or toilet* *Sometimes uses potty chair or toilet*						

APPENDIX F

Treatment Acceptability Rating Form-Revised

Self-Evaluation: Evaluation, Monitoring, and Maintenance Social Validity

Please score each item by circling the number that best indicates how you feel about the intervention on joint attention.

1. How acceptable did you find the intervention?

1	2	3	4	5
Not at all acceptable		Neutral		Very acceptable

2. How willing were you to carry out this intervention?

1	2	3	4	5
Not at all willing		Neutral		Very willing

3. To what extent do you think there might have been disadvantages in following the SELECT intervention?

1	2	3	4	5
None likely		Neutral		Many likely

4. How much time was needed each day for you to carry out the SELECT intervention strategies?

1	2	3	4	5
Little time Was needed		Neutral		Much time was needed

5. How confident are you that the intervention was effective for your child?

1	2	3	4	5
Not at all confident		Neutral		Very confident

6. How likely is this intervention to make permanent improvements in your child's social-emotional skills?

1	2	3	4	5
Unlikely		Neutral		Very likely

7. How disruptive was it to carry out this intervention?

1	2	3	4	5
Not at all disruptive		Neutral		Very disruptive

8. How much do you like the procedures used in this intervention?

1	2	3	4	5
Do not like them at all		Neutral		Like them very much

9. How willing were other family members to help carry out this intervention?

1	2	3	4	5
Not at all willing		Neutral		Very willing

10. To what extent did you notice undesirable side-effects from this intervention?

1	2	3	4	5
No side-effects likely		Neutral		Many side-effects likely

11. How much discomfort did your child experience during this intervention?

1	2	3	4	5
No discomfort at all		Neutral		Very much discomfort

12. How willing would you be to change your routines to continue to carry out this intervention at home?

1	2	3	4	5
Not at all		Neutral		Very willing

13. How well will carrying out this joint attention intervention fit into your existing routine?

1	2	3	4	5
Not at all well		Neutral		Very well

14. How effective was the intervention in teaching your child social-emotional skills?

1	2	3	4	5
Not at all effective		Neutral		Very effective

15. How well did the goal of the intervention fit with your goals for your child?

1	2	3	4	5
Not at all		Neutral		Very much

Anything to add?

APPENDIX G
Interventionist Fidelity of Implementation Checklist
Implementation Fidelity Checklist

1. Check-In/Follow-up from last visit	
1.1 Check in with parent to see how things went since previous visit.	Y N
1.2 Review/Discuss Family Reflection Form from previous visit (if not completed, fill out with family during discussion)	Y N
2. Planning for Upcoming Week	
2.1 Review Benchmark Introduction with parent	Y N N/A
2.2 Review SELECT strategies that were identified	Y N
2.3 Review and discuss SELECT Parent Activity	Y N
2.4 Review and discuss "Strategies for Special Considerations" (Optional)	Y N N/A
3. Implementation Guidance	
3.1 Review SELECT "Strategies to Try With My Child" table on the SELECT Parent Activity	Y N
3.2 Discuss and describe how to implement the intervention sequence: Try a strategy, watch and wait for child's response, and respond to child.	Y N
3.2.1 Discuss how the strategies will be implemented within parent-child interaction	Y N
3.2.2 Discuss possible child response whether desired or other.	Y N

3.2.3 Discuss contingent parent responses for desired child response or other responses.	Y N
3.3 Prompt parents to try the SELECT strategy	Y N
3.4 Remind parents to try the SELECT strategy if parents do not try the strategy every other minute	Y N N/A
3.5 Model the use of strategy (if applicable)	Y N N/A
3.6 Provide immediate feedback with verbal praise contingent on parent behavior	Y N
4. Prepare for Upcoming Week	
4.1 Ensure Home Visit Notes and Family Reflection Form are completed and leave with parent.	Y N
4.2 Remind parents to complete the Family Reflection Form in the following week.	Y N
4.3 Remind parents to video record a 10min play while using the strategies.	Y N

APPENDIX H

PARENT AND CHILD DATA SHEET

	(INSERT STRATEGY)	Watch and wait	Child response	(INSERT STRATEGY)	Watch and wait	Child response	(INSERT STRATEGY)	Wait and wait	Child response	Respond to child
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										

19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

WHOLE INTERVAL DATA SHEET FOR CHILD PARTICIPANTS

Time	1	2	3	4	5	6	7	8	9	10
0-10										
10-20										
20-30										
30-40										
40-50										
50-60										

Time	11	12	13	14	15	16	17	18	19	20
0-10										
10-20										
20-30										
30-40										
40-50										
50-60										

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