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A Mixed Methods Approach to Examining the Getting Ready Intervention for Supporting Young Children with Challenging Behaviors

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A MIXED METHODS APPROACH TO EXAMINING
THE GETTING READY INTERVENTION FOR SUPPORTING
YOUNG CHILDREN WITH CHALLENGING BEHAVIORS

by

Miriam E. Kuhn

A DISSERTATION

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Families and preschool teachers of children with persistent challenging behaviors are taxed daily by difficulties presented in care and management of such children in their homes and early education settings. This study utilized a sequential explanatory mixed methods approach in three phases to better understand a collaborative partnership model of intervention, *Getting Ready* (Sheridan, Marvin, Knoche, & Edwards, 2008), for supporting preschoolers with challenging behaviors attending Head Start or state-funded pre-kindergarten programs. Preschool teachers received professional development and individual coaching to help them improve partnerships and collaboratively plan with parents to promote children’s growth, and enhance parent-child interactions.

In Phase 1, archival quantitative data for 19 children with challenging behaviors were analyzed for (1) relationships between teachers’ reports of problem behaviors and other child, parent, and teacher variables prior to beginning the intervention; and (2) change in 10 measures of child development/behavior, parent involvement in their children’s education, parent-teacher and teacher-student relationships after one year of preschool augmented by the *Getting Ready* intervention. In Phase 2, archival documents and audio-recordings from parent-professional team meetings, as well as newly collected data from interviews with parents, teachers, and early intervention coaches for
children from Phase 1 were qualitatively analyzed. Synthesis of quantitative and qualitative data in Phase 3 provided a rich description of children’s significant gains in expressive language skills and functional improvements at home and/or school despite some persistent difficulties with challenging behaviors, executive functioning, and social skills. In addition, participants described their engagement in, commitment to, and satisfaction with parent-professional partnerships, as well as frustration with some children’s persistent challenging behaviors, program limitations regarding the number of team meetings throughout the year, and some inconsistent efforts by adults in implementing strategies for children’s positive behaviors. Phase 3 highlighted promising implications for early identification of young children with challenging behaviors, the types and dosage of interventions for them, as well as training topics for teachers working with this population of children.
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CHAPTER 1
INTRODUCTION

Challenging behaviors are prevalent in preschool children. It has been estimated that 8% to 25% of preschoolers display such behaviors with a degree of severity that impedes their social competence (Conroy, Brown, & Olive, 2008). For preschoolers living in poverty, the outlook is even more troubling, with prevalence rates of challenging behaviors in these children approaching 30% (Kupersmidt, Bryant, & Willoughby, 2000; Qi & Kaiser, 2003). If these issues are not addressed they tend to persist into later childhood, adolescence, and adulthood (Lipsey & Derzon, 1998). Early challenging behaviors have been associated with or found to predict peer rejection (Bryant, Vizzard, Willoughby, & Kupersmidt, 1999; Wood, Cowan, & Baker, 2002), academic problems (Kazdin, 1993; McClelland, Acock, & Morrison, 2006; Raver & Knitzer, 2002), delinquency and substance abuse (Campbell, 1995; Reid, 1993), and poor mental health (Pierce, Ewing, & Campbell, 1999).

The skills of adults who have these children in their care are tested when they are confronted with children’s challenging behaviors (Hinshaw, Han, Erhardt, & Huber-Dressler, 1992; Qi & Kaiser, 2003, Rimm-Kaufman & Wanless, 2012). Families report pervasive impacts on their family routines and activities, family roles, and the emotional well-being of all family members (L.Fox, Vaughn, Wyatte, & Dunlap, 2002). Families can become increasingly isolated by their children’s challenging behaviors, feeling reluctant to venture into community settings (L.Fox, Vaughn, et al., 2002; Joachim, Sanders, & Turner, 2010). Preschool teachers report feeling strained by children’s challenging behavior as well (Smith & Fox, 2003). Both publicly- and privately-operated
preschools are expelling children due to behavioral concerns at alarming rates (Gilliam, 2005). Teachers reportedly lack knowledge of effective interventions for addressing challenging behaviors (Hemmeter, Santos, & Ostrosky, 2008; Jones, 2009; Stormont, Reinke, & Herman, 2011), and/or the consultative skills for conveying such interventions to families for daily implementation of the interventions across home and school environments (McWilliam, 2010).

Thus, when children with challenging behaviors are excluded from community and early education settings they have fewer opportunities than their typical peers to learn basic pre-academic skills and practice the social competencies with peers that are crucial for school success (Gilliam, 2005; Skiba & Peterson, 2000). Furthermore, such exclusions add stress to already stretched family systems as families must search for alternative and affordable care and educational placements, deal with employment disruptions, and/or resolve marital discord that results from children’s expulsion from preschools (L. Fox, Vaughn, et al., 2002; Helburn, 1995; Webster-Stratton, 1988).

Parents and teachers of young children with challenging behaviors need comprehensive approaches to interventions that enable them to anticipate, prevent, or address children’s challenging behaviors, and support children’s positive social, emotional, and behavioral development (Foot, Woolfson, Terras, & Norfolk, 2004; L. Fox, Benito, & Dunlap, 2002; Jones, 2009). If challenging behaviors become solidified in children’s behavioral repertoires, they “are not likely to decrease in the absence of intervention” (Horner et al., 2002, p. 423).

Factors that lead to and maintain young children’s challenging behaviors are multi-faceted, adding to the complexity that arises as scholars attempt to understand this
phenomenon and devise effective interventions. There are known biological, developmental, and environmental factors that contribute to young children’s challenging behaviors, and parent and teacher characteristics and practices may either mitigate or exacerbate the effects. Biological factors include health conditions, genetic disorders, and neurobiological differences (Hack et al., 2004; Horner, Carr, Strain, Todd, & Reed, 2002). Developmental factors include deficits in cognitive, language, and social skills (Campbell, 1995; Lavigne et al., 1996; Qi & Kaiser, 2003). Environmental contributors include child maltreatment and deprivation, poverty, and related challenges associated with detrimental parent characteristics and practices (Campbell, 1995; Lawler & Gunnar, 2012; Shonkoff & Phillips, 2000). Fortunately, the literature is replete with information regarding factors preventing or mitigating the development of challenging behaviors in young children such as positive parent/teacher characteristics and practices, and quality teacher-child and parent-teacher relationships (Hamre & Pianta, 2001; Howes & Hamilton, 1992; McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004; NICHD ECCRN, 1999).

Over the past several decades, there have been advances in the development of evidence-based approaches for addressing these key mitigating factors and the children’s challenging behaviors. Interventions have emerged from the fields of mental health, behavioral psychology, special education, and disability advocacy. Historically, a number of effective interventions such as play therapy (Bratton, Ray, Rhine, & Jones, 2005), Parent-Child Interaction Therapy (Eyberg, Boggs, & Algina, 1995), and the Positive Parenting Program (Sanders, 1999) were developed by mental health experts for use in therapeutic settings. Some therapists worked directly with children while others aimed to
help families ameliorate their children’s challenging behaviors. These therapies, however, have not been easily accessed by many families of children in need of intervention due to cost and/or geographical barriers. In addition, such therapies are not typically conveyed to teachers for use within classroom settings (Morrison & Bratton, 2010).

Behavioral psychologists have honed the science of applied behavior analysis yielding evidence-based approaches for addressing learning and behavioral needs in children. Mental health and educational professionals utilize principles of applied behavior analysis to design treatments for addressing young children’s challenging behaviors (Dunlap et al., 2006; Eikeseth, Smith, Jahr, & Eldevik, 2002; Strain and McConnell, 1992). Extensive research into these practices has been driven, in no small part, by the needs of children with moderate to severe developmental delays or autism spectrum disorders. Effectiveness of behavioral strategies is high (Horner et al., 2002), but again, knowledge of and ability to design strategies such as these are often held by more highly trained individuals (e.g., school psychologists, applied behavior analysts, or mental health professionals). Parents and preschool teachers, while often recruited to deliver behavioral strategies, do not typically have extensive knowledge of this array of useful interventions.

Over the past decade, the science of applied behavior analysis has further evolved, influenced by movements toward inclusive practices and person-centered values that have emerged from the world of disability advocacy. Families, educators, and other stakeholders embraced the practical tools of applied behavior analysis for use in normalized, inclusive settings for the purposes of achieving person-centered goals. The
paradigm of positive behavioral support (PBS) emerged from this confluence of applied behavioral science, inclusive philosophy, and person-centered values (Carr et al., 2002).

Sugai and Horner (2002) developed a tiered model of school-wide PBS for elementary and secondary school settings as a comprehensive approach to promoting positive behavior. Efforts have been made, subsequently, to apply the principles of PBS to preschool settings utilizing universal strategies to support the positive behavior of all children at its first tier, explicitly teaching social-emotional skills to selected groups of children at its second tier, and developing individualized interventions for children whose persistent challenging behaviors are unresponsive to lower levels of support at its third tier (Hemmeter, Ostrosky, & Fox, 2006). Such models stress the importance of partnering with families across all tiers to maximize benefits to young children. While there is supporting research for each level of these tiered models, further investigation is warranted regarding implementation of these practices and what is needed to build the capacity of early childhood programs, practitioners, and parents to implement all tiers of support within preschool and home settings in a coordinated and effective manner (Hemmeter et al., 2006).

Furthermore, Smith and Fox (2003) discovered a number of practices with robust evidence of effectiveness that could be useful for professionals working with young children with challenging behavior and their families, including (a) using family-centered approaches in service delivery; (b) linking family, school, and community resources when designing supports; (c) nurturing collaboration among caretakers and teachers across children’s natural environments; and (d) preparing teachers to provide high-quality education and evidence-based intervention for meeting the needs of this population of
children. Many intervention packages, however, have not integrated all of these approaches effectively.

Several exemplary programs that aim to intervene when young children demonstrate challenging behaviors integrate some of the above-described practices with varying degrees of effectiveness (Dunlap, Lee, & Strain, 2013). These include *First Step to Success* (Walker et al., 1998), *Living with a Purpose Self-Determination Program* (Forness et al., 2000), *Incredible Years* (Webster-Stratton, Reid, & Hammond, 2001), and *Prevent-Teach-Reinforce for Young Children* (Dunlap, Wilson, Strain, & Lee, 2013). In addition, there is a model of intervention, *Getting Ready* (Sheridan et al., 2008), that has demonstrated promise for engaging parents and teachers in collaborative partnerships with aims of increasing parents’ confidence and competence in promoting children’s learning, strengthening parent-teacher relationships, and preparing parents and children alike for future school success (Knoche et al., 2012; Sheridan, Knoche, Edwards, Bovaird, & Kupzyk, 2010; Sheridan, Knoche, Kupzyk, Edwards, & Marvin, 2010.)

In a previous randomized control trial (RCT) of the *Getting Ready* intervention, Head Start children realized improvements on several social-emotional competencies, such as enhanced attachment to adults, greater increases in taking initiative, reductions in teacher-reported anxiety and withdrawal (Sheridan et al., 2010). When controlled for disability and gender, the *Getting Ready* intervention had a significant direct effect on an important learning-related behavior, the reduction of activity level, for children in the treatment group (Sheridan et al., 2014). Over the two-year study period, however, significant changes in additional externalizing behaviors such as anger, aggression, lack of self-control, or other challenging behaviors were not observed in the children
participating in the *Getting Ready* group. Further exploration of this model of intervention was warranted (Sheridan et al., 2010).

A current RCT of the *Getting Ready* intervention bolsters attention to collaborative planning by an Early Intervention (EI) coach, preschool teacher, and parent as a means of enhancing the model’s effectiveness for improving child, family, and classroom outcomes for young children evidencing developmental concerns. It is believed that this heightened focus on the collaborative process will result in a reduction of children’s challenging behaviors and improvement in their social competencies across home and preschool settings, however, preliminary data have not yet been published (Sheridan, Knoche, & Edwards, 2012). This study represents preliminary information about the Year 1 outcomes and experiences of a subset of children with challenging behaviors, their parents, teachers, and EI coaches in the *Getting Ready* project with an aim of providing valuable insight regarding recent revisions and the intervention’s strengths for this population of children.

The purpose of this study was to provide a more in-depth examination of the *Getting Ready* intervention for a vulnerable population of young children with challenging behaviors. The study aimed to (a) explore relationships among child, parent, and teacher characteristics when the children demonstrated risk factors associated with challenging behaviors; (b) discover how young children with challenging behaviors, their parents, and preschool teachers changed over the course of one year’s participation in the *Getting Ready* intervention; and (c) describe parents’, teachers’, and EI coaches’ experiences with the collaborative partnership process, in an effort to ascertain the
practical utility and meaningfulness of the Getting Ready intervention for these participants.

A sequential explanatory mixed methods design in three phases was used providing an approach in which data collection, analysis, and results from one methodological phase informed another methodological phase designed and conducted to follow-up on and explain findings from the first phase (Creswell & Plano Clark, 2011). The phases were integrally related to each other, with the second phase building on the first, allowing for an extension of the scope and range of inquiry (Greene, Caracelli, & Graham, 1989), and the third phase yielding a discussion of findings that resulted from integration and synthesis of results from the first two phases.

Phase 1 of the study utilized nonparametric statistical analyses of a set of archival quantitative data for a group of 19 young children who were identified as displaying challenging behaviors, their parents, and preschool teachers who participated in one year of the Getting Ready intervention. Qualitative methods were used in Phase 2 to collect and analyze data for a subset of four children who participated in Phase 1 in efforts to develop a thick, rich description of how the children, families, teachers, and EI coaches experienced one year of participation in the Getting Ready collaborative partnership process. Two sources of qualitative data were explored: (a) archival collaborative team documents and audio-recordings from Year 1 of the Getting Ready project, and (b) newly conducted interviews of participants, including parents, preschool teachers, and EI coaches who were still engaged mid-way through Year 2 of the project. A constant comparative method of data analysis was performed with these data. In Phase 3 of the study, results from the earlier phases were integrated and synthesized, and four findings
emerged regarding the experiences of these participants with the *Getting Ready* intervention, as well as preliminary outcomes for children, parents, and teachers. These findings and related implications are discussed in Chapter 5 of this dissertation.

This study purposed to answer five research questions. Phase 1 of the study aimed to answer these two questions:

1. What relationships existed between children’s challenging behaviors at baseline (Time 1), defined as standardized scores at or above the 75th percentile on a measure of this construct, and other child, parent, and teacher characteristics (e.g. children’s cognitive, language, social skills, and executive functioning; parents’ involvement in children’s education; and, parent-teacher and teacher-student relationships)?

2. For children with challenging behaviors, again defined as standardized scores at or above the 75th percentile on a measure of this construct, what changes were noted for the children’s developmental and behavioral skills, their parents’ involvement in their children’s education, and the relationships of children and parents with preschool teachers from Time 1 to Time 2, over the course of one school year’s participation in the *Getting Ready* intervention?

Phase 2 of the study focused on answering the following two questions:

3. What was the process various teams of parents, teachers, and EI coaches used to address their individual and collective needs related to interactions with the child with challenging behaviors?

4. How did the parents, teachers, and EI coaches of the children with challenging behaviors describe their experiences with the *Getting Ready* intervention in terms of importance of intervention targets, ease of implementation of strategies, the effectiveness
of the strategies, and their assessment of child, family, and classroom functioning during the intervention (Strain, Barton, & Dunlap, 2012)?

Finally, both quantitative and qualitative results were integrated and synthesized in Phase 3 to answer this remaining research question:

5. With regard to supporting young children with challenging behaviors, what understanding of the particular processes utilized in the Getting Ready intervention emerged from integrating the explanatory qualitative data about participants’ experiences with Getting Ready with quantitative outcome data from child assessments, and parent and teacher rating scales?
CHAPTER 2
REVIEW OF LITERATURE

This chapter will begin by defining challenging behavior. This will be followed by a review of literature regarding (a) factors contributing to young children’s challenging behaviors, (b) factors that minimize or prevent young children’s challenging behaviors, (c) evidence-based approaches for addressing challenging behaviors in young children, and (d) the utility of mixed methods designs for studies of early childhood interventions.

Definition of Challenging Behavior

Smith and Fox (2003) propose the following definition of challenging behavior in young children: “any repeated pattern of behavior, or perception of behavior, that interferes with or is at risk of interfering with optimal learning or engagement in pro-social interactions with peers and adults” (p. 5). It is a global term that often describes behaviors that injure self or others, damage property, interfere with learning, or isolate children (Conroy et al, 2008). Occasional challenging behaviors in young children are normative and expected over the course of children’s typical early development. These behaviors are often responsive to structure, adult vigilance, and appropriate guidance. Scholars continue to search, however, for effective interventions for behaviors that are chronic and unresponsive to the usual approaches. Chronic behaviors of young children that prove most challenging to the development of children’s positive social interactions and most taxing for their caregivers and teachers fall into three broad categories: (a) destructive behaviors: aggression, self-injurious behavior, and property destruction; (b) disruptive behaviors: tantrums, making loud noises, and elopement; and (c) behaviors
that interfere with one’s own or others’ learning: noncompliance, repetitive/stereotypical/stigmatizing behaviors, and withdrawal (Dunlap & Fox, 2007; Powell, Dunlap, & Fox, 2006; Turnbull & Ruef, 1996).

While this list of challenging behaviors is not exhaustive, it does capture the behaviors most often targeted for amelioration in young children. Furthermore, many of the tools used to measure challenging behaviors do not hone in on a single challenging behavior, rather they focus broadly on measuring the presence, frequency, and/or intensity of several challenging behaviors. Such measures frequently tap so-called “problem behaviors,” including (a) externalizing behaviors, such as aggression, bullying, tantrums, and noncompliance; (b) hyperactive/ inattentive behaviors, such as high activity levels, impulsivity, and distractibility; (c) internalizing behaviors, such as withdrawal, irritability, anxiety, and sadness; and (d) stigmatizing behaviors, such as preoccupations, nonfunctional rituals, and repetitive movements.

Many young children who display these problem behaviors have not received formal mental health diagnoses per the Diagnostic and Statistical Manual of Mental Disorders- 5th Edition (DSM-5; American Psychiatric Association, 2013) protocol, nor have they been identified for services of special education per federal or state verification guidelines as children with serious emotional disturbances, behavioral disorders, or social or emotional developmental delays (Individuals with Disabilities Education Act; IDEA; 2004). However, when children’s scores on standardized measures of the construct of problem behaviors are higher than 75% of their peers, adults can comfortably consider the children at significant risk of displaying chronic challenging behaviors and in need of intervention to interrupt this maladaptive trajectory (Gresham & Elliott, 2008; Reynolds
& Kamphaus, 2004). For the purposes of this study, the term “challenging behaviors” is used to refer to the collection of problem behaviors young children may present that are greater in intensity, duration, or frequency than 75% of their peers.

**Factors Contributing to Children’s Challenging Behaviors**

The literature describes many factors that impact the development and maintenance of children’s challenging behaviors, including biological and developmental characteristics in children, detrimental environmental influences, and adverse parenting practices. Often these factors co-occur resulting in an accumulation of risks during a time when young children are in the process of developing key mechanisms for sensory processing and self-regulation, as well as foundational abilities for problem solving, executive functioning, communicating, and interacting socially (Vernon-Feagans & Cox, 2014). Furthermore, parents’ positive interactions with children and involvement in promoting children’s learning may be degraded by the influences of impoverished environments, difficulty implementing effective parenting practices, or particularly challenging characteristics of their children. The multi-faceted nature of these varied risk factors for children’s challenging behaviors make the development of coordinated, comprehensive interventions critical, yet difficult.

**Biological contributors.** Children who display challenging behaviors often have health conditions, genetic disorders, and/or neurobiological differences that play a role in the development of their social behaviors. Biological conditions may have deleterious impacts on brain and nervous system development, leading to difficulties with self-regulation, sensory processing, and executive functioning.
Sleep disordered breathing and preterm birth are but two examples of health conditions that have been associated with displays of challenging behaviors. Sleep disordered breathing in young children is characterized by intermittent periods of apnea and hypoxia that result in symptoms such as snoring, restless sleep, and daytime sleepiness (Molfese, Rudasill, & Molfese, 2013). This condition has been linked to behaviors likely to impact early learning, particularly hyperactivity and inattention (Ali, Pitson, & Stradling, 1993; Chervin, et al., 2002), and particularly so for young boys more than young girls. Poor sleep habits and reduced amounts of sleep have been associated with poorer adjustment in preschool for 4- and 5-year-old children and higher scores on a measure of challenging behaviors (Bates, Viken, Alexander, Beyers, & Stockton, 2002).

Preterm birth, defined as birth before 37 weeks’ gestation, often results in a variety of brain and nervous system issues for children (Rais-Bahrami & Short, 2007). The highest risk is for children born before 32 weeks’ gestation or at very low birth weight (below 3 ½ pounds). Preterm birth has been linked to greater risk of poor executive functioning, more withdrawal, less adaptability, poorer social skills, and less persistence in children’s later years (Anderson & Doyle, 2004; Rais-Bahrami & Short, 2007.) Symptoms of Attention Deficit Hyperactivity Disorder are more prevalent in preschool children who were born preterm, and they display more challenging behaviors such as tantrums and noncompliance when compared to full-term peers (Hack et al., 2004; Gray, Indurkhya, & McCormick, 2004). Furthermore, preterm birth has been associated with slightly higher rates of problematic behaviors when the children are preschoolers (Qi & Kaiser, 2003).
In addition to health conditions, genetic and neurobiological factors impact children’s behavioral and social development. Perhaps one of the best examples of neurobiological factors expressing themselves in behavioral manifestations is in the area of autism spectrum disorders (ASD). Genetic and brain research has furthered our understanding of the possible causes of autism and its resultant triad of core deficits in communication, social interaction, and stereotypical patterns of behavior and/or interests (Haney, 2013). In addition, the autism literature reports 42% to 88% of individuals with ASD display irregularities in sensory processing, resulting in difficulties with auditory processing, sensory modulation, attention, and arousal (Tomchek & Dunn, 2007).

Children’s sensory-seeking or sensory-avoiding behaviors can prove quite resistant to intervention (Gauvreau & Schwartz, 2013), and the cluster of core deficits result in young children with ASD being at high risk for demonstrating challenging behaviors. A review of published research indicates the most common targets for intervention in children under the age of 8 with ASD are disruptive behaviors, tantrums, aggression, destruction of property, stereotypy, and self-injury (Horner et al., 2002).

**Developmental contributors.** Young children’s cognitive delays, language and communication impairments, and social skill deficits may have no known biological etiology and uncertain environmental causes. For preschoolers, however, such delays have been associated with challenging behaviors.

A number of studies have pointed to the relationship between early cognitive deficits and challenging behaviors, although this has not been a universal finding. Children as young as 2 to 3 years of age who have cognitive delays have increased risk for behavioral problems (Eisenhower, Baker, & Blacher, 2005; R. Fox, Keller, Grede, &
Bartosz, 2007), and their challenging behaviors tend to persist into elementary school (E. Emerson, Einfeld, & Stancliffe, 2011). Preschoolers referred by their parents to a behavioral clinic due to disruptive behaviors were four times more likely to demonstrate cognitive delays than preschoolers in the general population (Szczepaniak, McHenry, Nutakki, Bauer, & Downs, 2013). Children with delays tended to use maladaptive strategies (e.g., distraction, expression of distress) when given a challenging task as compared to typically developing children who tended to use adaptive strategies (e.g., coping, asking for help) in the same situation (Gerstein et al., 2011). A number of studies have demonstrated links between lower cognitive ability and poorer self-regulation (Bryant et al., 1999; Lavigne et al., 1996, Owens, Shaw, Giovannelli, Garcia, & Yaggi, 1999).

One group of researchers, however, found that 2-year-olds identified with or at risk for cognitive delays did not have significantly more challenging behaviors than the control group of typically developing peers (Feldman, Hancock, Reilly, Minnes, & Cairns, 2000). On the other hand, Baker and colleagues found that by the age of 3, children with cognitive delays demonstrated more internalizing, externalizing, and total behavior problems than typical peers (Baker, Blacher, Crnic, & Edelbrock, 2002). So this is, perhaps, an issue that becomes exacerbated as children with cognitive deficits or delays grow older.

Behavior is communicative. In the population of young children with challenging behaviors, poor receptive/expressive language, speech impairments, and/or weaknesses in functional, socially appropriate communication skills are common, resulting in children’s use of disruptive, though often efficient, methods of conveying their thoughts,
desires, and emotions (Menting, von Lier, & Koot, 2011; Séguin, Parent, Tremblay, & Zelazo, 2009). In a large-scale study of toddlers and preschoolers, frequent physical aggression was found to be related to deficits in receptive vocabulary, after controlling for other neurocognitive abilities (Séguin et al., 2009). Expressively, as children attempt to “get their point across” to a listener, they sometimes resort to behavioral communications that become labeled as problem behaviors due to their unpleasant or coercive nature (Halle, Brady, & Drawgow, 2004). If children do not develop functionally equivalent language skills, they tend to utilize what has worked for them in the past (e.g., hitting, yelling, having tantrums) or even escalate to use of more severe forms of behavior (Carr & Durand, 1985; Halle et al., 2004; Luczynski & Hanley, 2013). Fortunately, study of ASD and functional communication in young children has resulted in numerous evidence-based practices for improving behavioral outcomes by promoting children’s socially appropriate communication skills (Wacker, Peck, Derby, Berg, & Harding, 1996). The practices include environmental and visual support, techniques from applied behavior analysis such as discrete trial training or pivotal response training, and a variety of low-tech, picture and manual communication systems (Beukelman & Mirenda, 2013; Haney, 2013; Koegel & Koegel, 2006; Simpson, 2005). These strategies have wide applicability for all children with challenging behavior.

Finally, practitioners and researchers have identified key social skills young children need for success in early education environments. These include abilities to develop and maintain positive relationships with adults and peers, concentration, persistence with challenging tasks, listening skills, self-confidence, appropriate strategies for communicating emotions, and abilities to solve social problems (Hemmeter et al.,
2006; Joseph & Strain, 2003). Many young children, however, do not enter preschool displaying these crucial social competencies. Children with difficult temperaments and from disadvantaged families that are characterized by abuse or exposure to community violence are at particular risk for delays in developing social skills (Joseph & Strain, 2003). Such children typically require intensive and explicit teaching to learn to play well with peers, recognize and express emotions, and negotiate conflicts with others (Copple & Bredekamp, 2009). When preschool children are identified as lacking social competencies, but provided embedded instruction to dramatically increase their learning opportunities, and monitored for progress, they display less aggression, are more often included with positive peer groups, have more friends, and improve their likelihood of school success (L. Fox, Lentini, & Binder, 2013; Joseph & Strain, 2003).

**Environmental contributors.** Studies have pointed to a number of environmental factors that influence the development of children’s challenging behaviors, often with long-lasting consequences for children, families, communities, and society in general (Shonkoff & Phillips, 2000). These include child maltreatment, such as abuse and neglect, environmental deprivation, poverty, and neighborhood violence (Flisher et al., 1997). There are occasions when environment and biology collide resulting in even higher risk of children displaying challenging behaviors. Studies of brain development and endocrine function in infants, toddlers, and young children have provided evidence of the neurobiological effects of child maltreatment and/or environmental deprivation. These effects include cognitive and language delays, internalizing problems, externalizing behaviors, attention deficits, and stereotypical behavior (Lawler & Gunnar, 2012).
Bradley, McKelvey, and Whiteside-Mansell (2011) found that levels of children’s developmental competencies and adaptive behaviors were contingent on the quality of social-emotional support and stimulation provided by their caregivers and environments. Children grow up in family environments that vary greatly in the quality of development-instigating experiences provided to the children (Dunst et al., 2001), and family socio-economic status as well as parent characteristics and practices are important influences on the development of children’s social behaviors.

**Poverty.** Economic hardship has been associated with many poor developmental outcomes for young children (Bradley, Corwyn, Burchinal, McAdoo, & Coll, 2001). Poverty increases the risk factors to which infants and young children are exposed, some of which include lower birth weight, malnutrition (prenatal and postnatal), disease, limited access to health care, inhibited neural connections in early brain development, parental depression, harsh parenting practices, less exposure to language, unsafe physical settings, dangerous communities, and less stimulating home learning environments (Bergsten, 1998; Brooks-Gunn, Klebanov, & Liaw, 1995; Hart & Risley, 2003; Macomber, Isaacs, Vericker, Kent, & Johnson, 2009; Park, 2008). The accumulation, as well as the interaction, of risk factors tends to exacerbate the negative influences of these factors on child development for children living in poverty (Garmezy, 1991; Rutter, 1987; Sameroff, 2010; Sameroff, Seifer, Baldwin, & Baldwin, 1993; Werner, 1989; Yates, Obradović, & Egeland, 2010). Frequently, a casualty of this accumulation of negative risk factors is the healthy social-emotional/behavioral development of young children living in poverty (Vernon-Feagans et al., 2013).
Children raised in poverty often exhibit impaired cognitive development, delayed language skills, poorer social competence, and more challenging behaviors (including acting out, aggression, fighting, social withdrawal, anxiety, and depression) when compared to peers from middle- and upper-socioeconomic groups (Brooks-Gunn & Duncan, 1997; E. Emerson, 2004; Hart & Risley, 2003; Peterson, Mayer, Summers, & Luze, 2010). Challenging behaviors, in particular in preschool children, have been associated with living in income-poor homes, residing in deprived neighborhoods, and having exposure to angry, harsh, or inconsistent parenting—all factors endemic in families living in poverty (E. Emerson et al., 2011). Low income parents are likely to have less education, work irregular hours, enter parenthood at younger ages, and become single parents, all dynamics that influence the language and literacy environment in the home, resources allocated to learning materials and activities, quality of parenting skills, and time and energy available to focus on children (Macomber et al, 2009; Park, 2008; Vernon-Feagans et al., 2013).

Although no direct causal links have been established, low income parents of children with developmental delays/disabilities appear to demonstrate less warmth, engage in lower quality parent-child interactions, and provide fewer learning experiences than their counterparts whose children do not evidence delays (Brooks-Gunn & Duncan, 1997; Eshbaugh et al., 2011). Thus, children with disabilities living in poverty are exposed to a multiplicity of risk factors linked to conditions that tend to result in the development of significant challenging behaviors.

**Parent characteristics and practices.** Parental stress can be exponentially higher for families in poverty who have children with delays or disabilities (Beckman, 1991; L.
Fox, Benito, et al., 2002), and heightened levels of stress have been found to contribute to or be exacerbated by children’s challenging behaviors. Tervo (2012) studied a group of parents of preschoolers with developmental delays and reported that higher levels of parental stress were associated with higher parent reports of emotional reactivity, withdrawal, and defiance in their children. Moreover, regardless of the presence of developmental delays/disabilities, high levels of parental stress have been associated with many adverse outcomes such as children’s negative behaviors, more parental negativity, and less parent involvement with children (Crnic, Gaze, & Hoffman, 2005; Repetti & Wood, 1997). Furthermore, there is some evidence that parental stress plays a causal role in the display of children’s challenging behaviors (Crnic et al., 2005).

Maternal depression is yet another parent characteristic that has long been considered a risk factor for a host of adverse child outcomes including child challenging behaviors (Murray, 1992). There are reports that, on average, 1 in 10 mothers admit experiencing depressive symptoms including physical exhaustion, a sense of isolation, and a lack of social support (Birkeland, Thompson, & Phares, 2005; Gelfand, Teti, Seiner, & Jameson, 1996). In addition to challenges coping with the day-to-day tasks of parenthood, other hallmarks of depressed mothers include fewer and lower quality mother-child interactions, less affective sharing, and disadvantageous parenting practices (Gelfand & Teti, 1990; Murray & Cooper, 1997; Murray, Fiori-Campbell, Hooper, & Cooper, 1996). Children as young as 18 months of age whose mothers are diagnosed with depression demonstrate challenging behaviors such as sleeping and eating irregularities, temper tantrums, and difficulty separating from their mothers more often than children of well mothers (Murray & Cooper, 1997).
In addition to parent characteristics such as stress or depression, some parenting practices have been linked to higher rates of challenging behaviors in young children. Harsh parenting, for example, is one such practice that, along with maternal rejection, has been found to consistently predict early externalizing behaviors in children (Shaw et al., 1998; Spieker, Larson, Lewis, Keller, & Gilchrist, 1999; Supplee, Shaw, Hailstones, & Hartman, 2004). Punitive approaches to discipline and controlling parent behaviors have been associated with children’s challenging behaviors and, subsequently, parental perceptions of having a difficult child (Coleman & Karraker, 2003).

Over-protectiveness, when carried to an extreme, can be a problematic parenting practice as well. Parents’ abilities to promote the autonomy of their children may be conceptualized as processes parents use to encourage children’s self-competence and promote individuation (Sheridan et al., 2008). Facilitating autonomy helps children pursue mastery motivation, develop self-control, tolerate frustration, and lengthen attention span, all critical skills for positive social interactions as well as effective learning. Parents must attempt to achieve a delicate balance between support for and over-regulation of their young children’s attempts to display autonomy. When parents are too restrictive, over-protective, and controlling of their children, opportunities for children to develop self-control by acting in autonomous ways are minimized.

**Impacts on children’s social-emotional/behavioral functioning.** Many of the above described biological, developmental, and environmental factors are associated with the exacerbation of challenging behaviors in young children due to their impacts on (a) children’s development of sensory processing skills, self-regulation, cognitive and executive functioning, language development, and social competencies; (b) parents’
interactions with children and involvement in promoting children’s development and educational growth; and, (c) teachers’ relationships with the children with challenging behaviors and their families, as well as teachers’ abilities to maintain warm, emotionally-responsive classroom environments.

Immature nervous systems and neurological differences may impede sensory processing, resulting in hypersensitivities to sounds, lights, textures, and/or physical contact, or hyposensitivities, a seeming lack of processing of such sensory information (Haney, 2013). Self-regulation, that is the ability to inhibit negative responses, to focus attention and stay on task, and to engage in learning activities, is an important component of young children’s development (Rimm-Kaufman & Wanless, 2012) that can be compromised by genetic irregularities, prenatal exposure to drugs or alcohol, prematurity, or neurological insults. Aspects of self-regulation such as soothability, attention, dysregulation, and emotionality in infancy have been found to be associated with later externalizing behavior (Harden et al., 2000).

Young children experience tremendous expansion in the development of cognitive ability and executive functioning during their early years. Cognitive abilities such as pace of learning, comprehension of abstract concepts, and social problem solving impact children’s success in social settings. Social problem solving has been defined as a child’s capacity to monitor an on-going social situation, to generate a variety of possible social responses to the situation, and then to select and evaluate a response that achieves the child’s desired ends (Odom, McConnell, & Brown, 2008). Typically-developing preschoolers demonstrate competencies in executive functioning in the form of planning, decision-making, inhibitory self-control, flexibility, working memory, and emergent
metacognition. Behaviors associated with executive functioning in young children may be reliably measured by age 2, and such competencies develop rapidly throughout the preschool years (Gioia, Isquith, Guy, & Kenworthy, 2000; Obradović, Portilla, & Boyce, 2012). Schoemaker and colleagues (2013) conducted a meta-analysis to determine if executive functioning deficits would also be found in preschool children displaying externalizing behaviors. Medium significant correlation effect sizes were found for overall executive functioning ($ES_{zr} = .22$) and for inhibition ($ES_{zr} = .24$), indicating that deficits in the purposeful, goal-directed processes of executive functioning are related to challenging behaviors in preschool children (Schoemaker, Mulder, Dekovic, & Matthys, 2013).

Health conditions, genetic disorders, and neurobiological differences commonly play pivotal roles as biological contributors to the development and maintenance of young children’s challenging behaviors. In addition, developmental delays that are of unknown etiology contribute to some children’s challenging behaviors. Interventions for children with these characteristics are critical and will require a thorough understanding of effective strategies for promoting children’s sensory processing, self-regulation, executive functioning, cognitive and language development, and improvement of social competencies. Interventions should offer adults strategies that address wide ranges of abilities with appropriate modifications and supports matching children’s individual strengths and limitations.

Factors that Prevent or Minimize Challenging Behaviors

Beyond addressing child characteristics such as those described above, effective interventions for this population of children and their families must acknowledge and
offer support for the challenges faced by parents regarding initiating positive parent-child interactions, promoting positive behavioral change, and engaging in parent behaviors that enable active involvement in children’s development and learning. Also, teachers of the children face challenges and are in need of support regarding their knowledge of effective strategies for supporting children’s positive behaviors, maintaining supportive emotional environments in classrooms, and working successfully with families to improve behavior across home/school environments. For parents and teachers of children with challenging behaviors, interventions that focus on factors that prevent or minimize challenging behaviors through joint efforts crossing home and school environments are key. The extensive body of literature regarding these factors highlight the conditions that promote resiliency of vulnerable children and the adults who care for and teach them. Mitigating factors that are particularly salient for this study include warm adult-child interactions, positive teacher-child relationships, and effective parent-teacher relationships.

**Warm adult-child interactions.** Positive parent-child interactions are characterized by warmth, nurturance, appropriate limit-setting, and support for children’s autonomy and learning. Warm and responsive parental interactions have been found to be associated with numerous positive behavioral outcomes for children such as compliance with reasonable parental requests, development of internalized locus of control, responsiveness to limit-setting, and the ability to relate to peers (Clark & Ladd, 2000; Davidov & Grusec, 2006; LeCuyer & Houck, 2006; Schmidt, DeMulder, & Denham, 2002). On a similar note, early childhood educators’ abilities to establish warm, emotionally-supportive classroom environments have been linked to growth in young children’s social skills, reductions in parent reports of internalizing behaviors for their
children, and increased child engagement in early education settings (Hamre & Pianta, 2001; NICHD ECCRN, 2003; Bryant et al., 2002).

**Positive teacher-child relationships.** Factors influencing teacher-child relationships are multi-dimensional. Studies indicate child characteristics such as gender, temperament, challenging behavior, and the presence of disabilities impact teacher relationships with particular children (Arnold, McWilliams, & Arnold, 1998; Keough & Burstein, 1988). Children who have negative relationships with their parents tend to replicate this interaction pattern with their teachers, however, many teachers are able to alter the pattern and form positive relationships with such children (Sroufe, 1983). Chung, Marvin, and Churchill (2005) found positive correlations between teacher-child relationships and teachers’ self-efficacy, educational backgrounds, and parent-teacher relationships. These investigators suggest that training teachers to focus on maximizing quality of relationships with both children and their parents has potential to influence children’s future school success. Furthermore, positive teacher-child relationships in preschool have been found to have protective qualities for children’s future social competence and reductions in withdrawal and aggression (Baker, 2006; Howes, 2000; Howes & Hamilton, 1992).

**Effective parent-teacher relationships.** Research on parent involvement in children’s education suggests that positive parent-teacher relationships influence child development, are associated with positive school experiences for children, and enhance parental feelings of empowerment (Bronson, Peirson, & Tivnan, 1984; Dunst & Dempsey, 2007; McWayne et al., 2004; Pianta, Nimetz, & Bennett, 1997). Positive parent-teacher relationships are generally characterized by mutual respect and
collaborative practices. Indeed, such collaborative partnerships have been found to correlate with improved behavioral and social-emotional outcomes for children (Sheridan et al., 2008). Thus, interventions that focus on strengthening parent-teacher relationships will be particularly important for the population of children with challenging behaviors and are more likely to result in improved teacher-child relationships as well.

**Approaches for Addressing Children’s Challenging Behaviors**

In spite of many sincere efforts to prevent the development of children’s challenging behaviors, the prevalence of children with significantly challenging behaviors remains alarming, and, for many practitioners, appears to be growing. “Preschool teachers and child care providers report that disruptive behavior is the single greatest challenge that they face and that there seem to be increasing numbers of disruptive and aggressive children in their classes each year” (Raver & Knitzer, 2002, p. 12). There is a growing body of scholarly work relevant for intervening with this population. This section of the chapter will focus specifically on approaches targeting children ages 3 to 6 with challenging behaviors, their families, and the early care providers or educators who serve them, and include reviews of (a) evidence-based interventions, (b) the role of coaching in delivering support to the adults who parent and teach children with challenging behaviors, (c) exemplary programs targeting improved social/emotional/behavioral development of children, and (d) characteristics of the *Getting Ready* model of intervention.

**Evidence-based interventions for young children.** Interventions for addressing young children’s challenging behaviors have emerged from the fields of mental health, behavioral psychology, education, and disability advocacy. In addition, the well-being of
young children is inextricably linked to their caregivers, thus, scholars have explored other family-centered and community-based practices that will be described here.

**Therapy-based interventions.** Historically, interventions to reduce children’s challenging behaviors were developed for use in therapeutic settings (Kazdin & Weisz, 1998). Over a hundred years ago, play therapies were created for working with young children with mental health problems. Play therapy was not considered to have empirical support, however, until recent techniques using meta-analysis were able to establish efficacy of these approaches. Bratton, Ray, Rhine, and Jones (2005) analyzed 93 controlled outcome studies of 3,248 children, finding a large effect size ($ES=.80$) for play therapy conducted by a therapist and an even more substantial effect size ($ES=1.05$) when caregivers delivered the therapy. Play therapy, however, has a number of limitations including a shortage of trained professionals to deliver the therapy or train caregivers in its use, disparate philosophical bases and techniques underlying the approaches, and difficulty establishing the generalizability of the practices from the clinic to natural settings, such as homes and preschool classrooms (Bratton et al., 2005).

**Parent-Child Interaction Therapy** (Eyberg et al., 1995) aims to train parents of young children ages 2 to 7 to pay positive attention to children’s positive behaviors, ignore negative behaviors, provide clear expectations when giving directions, and follow through with praise or time-out for children’s responses to directives. This practice has been deemed probably efficacious in a study by Eyberg, Nelson, and Boggs (2008). The therapy was superior to a waitlist condition in reducing young children’s disruptive (i.e., noncompliant, aggressive, and rule-breaking) behaviors. A limitation of this research,
however, was a lack of an alternative treatment or placebo condition, and no information on the therapy’s efficacy for other types of challenging behaviors is available.

Sanders (1999) developed the Positive Parenting Program (Triple P) as a multi-level approach to treatment, with the intensity of intervention matched to family needs. Triple P was, in many ways, a forerunner of positive behavioral support (PBS) and offered universal prevention strategies through public service communications, brief-therapy sessions for mild problems, and subsequently longer and more intense interventions for more serious challenging behaviors in young children. The top two levels of intensive intervention have been subject to four well-conducted studies and found to be probably efficacious (Eyberg et al., 2008) for reducing the intensity and frequency of disruptive behaviors in preschoolers, while the most intensive level of Triple P intervention was efficacious for children from dysfunctional families (Eyberg et al., 2008). These studies were also limited by a lack of comparison of the Triple P therapy to an alternative treatment or placebo condition.

For some children with challenging behaviors, mental health therapists may provide parents with behavioral training, attempt to improve parent-child relationships, or serve children in therapeutic preschool settings. Unfortunately, families of children with multiple risk factors have been shown to be less likely to seek these traditional mental health services in their communities (Morrison & Bratton, 2010), and such costly interventions can be beyond the reach of many families’ budgets, particularly if they lack health insurance coverage. Another limitation of mental health therapy is that while it may provide much needed support for the development of parenting skills and improving family functioning, such interventions rarely address environments such as preschools or
childcare settings where children spend a large portion of their time. In fact, for approximately 30% to 40% of children, parent training alone does not lead to long-term improvements in behavior (Bryant et al., 1999). Young children with challenging behaviors, their parents, and teachers are in need of interventions that generalize across the natural environments where these children spend their days.

**Applied behavior analysis.** Applied behavior analysis (ABA), with its roots in positivism, and operant psychology (Baer, Wolf, & Risley, 1968; Baer, Wolf, & Risley, 1987), has emerged over the past several decades as a source of evidence-based practices for addressing young children’s challenging behaviors. ABA contends that systematic assessment, consideration of antecedents and reinforcements, and the application of precise, objective, measureable interventions delivers positive changes in the displays of challenging behaviors. Over 45 years of research in ABA has resulted in expanded knowledge of powerful evidence-based behavioral practices (Carr, 1997; Carr et al., 2002; Strain & McConnell, 1992), in no small part driven by increased attention to the needs of individuals with severe intellectual disabilities or autism spectrum disorders.

Mental health and educational professionals utilize principles of ABA to design treatments for addressing young children’s challenging behaviors (Dunlap et al., 2006; Eikeseth et al., 2002; Strain and McConnell, 1992). Often the approaches include functional behavioral assessment, followed by the design of an intervention package with antecedent interventions, teaching of replacement skills, and contingent reinforcement strategies based on the findings of the functional behavioral assessment (Fouse & Wheeler, 1997; Kennedy, 1994; Luiselli, 2006). These intervention packages have been shown to reduce children’s aggressive and non-compliant behaviors when used by
parents or classroom teachers (Blair, Umbreit, & Bos, 1999; Dufrene, Doggett, Hemington, & Watson, 2007; LeBel, Chafouleas, Britner, & Simonsen, 2013; Stormont, 2002; Strain & Timm, 2001). Effectiveness of behavioral strategies is high. A research synthesis of studies completed on children with autism aged 8 or younger reported reductions of 90% or greater for all three classes of problem behavior--externalizing/destructive, internalizing/maladaptive, and socially disruptive--in the studies examined, and for individuals with a wide range of diagnostic labels (Horner et al., 2002).

*Functional Communication Training (FCT)* is one strategy, for example, that has demonstrated effectiveness for children with limited speech and/or language who utilize challenging behaviors to communicate wants, needs, and emotions (Reeve & Carr, 2000; Wacker et al., 1996). Functional behavioral assessment is conducted to determine the function of children’s negative behaviors so that a form of replacement communication (such as using a phrase, gesture, sign, or visual depiction) may be taught to the child. Adults prompt, teach, and reinforce the child’s use of the strategy. Again, knowledge of and ability to design strategies such as these are often held by more highly trained individuals (e.g., speech/language pathologists, school psychologists, applied behavior analysts, or mental health professionals). Although parents and teachers may play integral roles in delivering the interventions, they may not have awareness of the array of available techniques, and the trained ABA professionals need to ensure that parents and teachers deliver the interventions with high fidelity (Durlak & Dupree, 2008; Knoche, Sheridan, Edwards, & Osborn, 2010).
Positive behavioral support. Sugai and Horner (2002) developed a model of school-wide PBS for elementary and secondary school settings that captured use of empirically-based tools from ABA as a means of supporting goals of inclusive practice and person-centered approaches (Kincaid, 1996). This paradigm promoted the positive behavior of all students by fostering comprehensive, universally-applied approaches, yet addressed individual needs for those with persistent challenging behaviors. Over the past decade, efforts have been made to apply the principles of PBS to preschool settings. The Teaching Pyramid (Hemmeter et al., 2006) is one such 3-tiered model of PBS that advocates implementing universal strategies supporting the positive behavior of all children at its first tier, explicitly teaching social-emotional skills to selected groups of children at its second tier, and planning individualized interventions for children whose challenging behaviors are unresponsive to lower levels of support at its third tier. Another core component of the Teaching Pyramid model is the nurturing of positive relationships between educational staff and families. Hemmeter et al. (2006) contend that while there is supporting research for each level of the Teaching Pyramid model, further investigation is warranted regarding implementation of this set of practices. In particular, researchers have not yet explored what is needed to build the capacity of early childhood programs, practitioners, and parents to implement all tiers of support within preschool and home settings in a coordinated and effective manner.

Effective family-centered and community-based practices. A number of additional practices have robust evidence of effectiveness that informs the development of interventions for young children with challenging behaviors (Smith & Fox, 2003). First, a family-centered philosophy of service delivery is critical for engaging families as
partners in addressing the needs of this population of children. Interventionists must consider the family system as a whole (Turnbull, Turnbull, Erwin, Soodak, & Shogren, 2011) and approach family support from a strengths-based perspective (Dunst & Trivette, 1996; Trivette, Dunst, & Hamby, 2010; Vandenburg, 1993). Ultimately, all families make their own decisions, and failing to allow families authentic power in the partnership only leads to dissatisfaction with services or attrition from programs (Fernandez, Butler, & Eyberg, 2011; R. Fox & Holtz, 2009; Strain et al., 2012).

Second, to address the needs of children with challenging behaviors, intervention must be both comprehensive and individualized. The comprehensive nature of services refers to the provision of an array of appropriate and culturally sensitive options that may then be tailored to meet families’ or children’s individual needs. Linkages with both informal and formal supports in the community help attain this goal (DEC, 2014; Vandenburg, 1993). The individualized nature of services refers to committing to partnering with families to assess needs and develop customized service plans desired by families (DEC, 2014; Vinson, Brannan, Baughman, Wilce, & Gawron, 2001).

Next, collaboration across environments is crucial for children with challenging behaviors. Interventions that bring families and early care and education professionals together to support these children are able to address gaps in support and maximize teaching of positive behavior, allowing children many opportunities to practice and generalize skills throughout the day across their natural environments (Sheridan, Eagle, Cowan, & Mickelson, 2001; Sheridan et al., 2008; Webster-Stratton et al., 2001).

Finally, the preparation level of teachers strongly predicts high quality in early education programs (National Research Council, 2001) which is, in turn, a key factor
preventing children’s behavior problems. Much work remains in developing a competent work force, particularly in light of current needs of early childhood educators to have expertise in promoting children’s mental health, social skills, and positive behavior. Preparing personnel to provide high-quality care and education and evidence-based interventions for this population of children will require strong pre-service programming, extensive and coordinated in-service training, responsive and reflective supervision, and a commitment to compensation that will attract and retain proficient and gifted practitioners (Helburn, 1995; Gilkerson, 2004; Klein & Gilkerson, 2000; Knitzer, 2000; DEC, 2014).

**Role of coaching in delivering interventions.** Coaching has emerged as an evidence-based model for delivering effective support to parents and preschool teachers for early intervention targeting young children’s learning, social, and behavioral needs (L. Fox & Hemmeter, 2011; Rush & Shelden, 2008). Coaching in early intervention employs a set of strengths-based, adult learning strategies aiming to build capacity in parents, preschool teachers, and early intervention team colleagues for developing a new skill or improving an existing ability. It is a process that enables learners to gain deeper understanding of effective practices so that they can use them in existing, as well as future situations (Rush & Shelden, 2008). Coaches endeavor to promote learners’ abilities to consider their actions in light of their intentions, as well as reflect upon effectiveness of the actions, and how those actions may be refined or used to address learners’ present or future needs (Rush & Shelden, 2005b). Thus, coaching provides a set of evidence-based approaches useful for those attempting to engage in collaborative planning with adults caring for and/or teaching young children with learning and
behavior challenges, particularly when these adults are desiring to learn specific skills and/or coaches desire to build learners’ competencies for independently solving future problems (Hanft, Rush, & Shelden, 2004; Peterson, Luze, Eshbaugh, Jeon, & Ross Kantze, 2007; Salisbury, Woods, & Copeland, 2010; Rush & Shelden, 2005b).

Coaches draw upon five research-based practices during interactions with learners for purposes of assisting adults to support children’s access to, participation in, and learning from natural family and community contexts (L. Fox & Hemmeter, 2011; Hanft et al., 2004; Rush, Shelden, & Hanft, 2003). These characteristic practices include observation, action/practice, feedback, reflection, and joint planning (Rush & Shelden, 2008). Essential to an effective coaching interaction is that it be collaborative (learners select outcomes to be discussed in a series of conversations), performance based (focused on learners improving their performance in a particular situation), context driven (learners’ roles and particular situations guide the interaction), reflective (coaches prompt learners to examine their actions in light of their intentions), and reciprocal (both coaches and learners contribute knowledge and experience to the problem solving process) [Flaherty, 1999; Hanft et al., 2004].

Successful coaching interactions are grounded in a positive relationship between coaches and learners (McWilliam, Tocci, & Harbin, 1998; Wesley & Buysse, 2006). This supportive foundation is the basis for working partnerships that encourage problem identification and problem solving interactions between coaches and learners (Hanft et al., 2004), and increases the capacity of parents and preschool teachers to effectively care for and teach children (L. Fox & Hemmeter, 2011; Tschantz & Vail, 2000). Furthermore, effective implementation of coaching support has been linked to positive adult learner
outcomes such as adoption of innovative instructional practice, increased use of effective
teaching approaches and decreased use of ineffective ones, and improved responsiveness
to children (Kohler, McCullough, & Buchan, 1995; Miller, Harris, & Watanabe, 1991;
Rush & Shelden, 2005a; Tschantz & Vail, 2000). In addition, effective coaching has been
associated with improved child outcomes that are critical for children with challenging
behaviors, such as emotional and behavioral regulation, problem-solving, social
interaction, engagement in learning tasks, attention, initiative, exploration, adaptive
skills, and early literacy skills (Hendrickson, Gardner, Kaiser, & Riley, 1993; Kohler,
Crilley, Shearer, & Good, 1997; Korfmacher et al., 2008; Masten & Coatsworth, 1998;
Powell, Diamond, Burchinal, & Koehler, 2010; Sheridan et al., 2010; Sheridan, Knoche,

**Exemplary programs for improving children’s social/emotional/behavioral
development.** Several programs (see Table 1) successfully integrate many of the
previously described effective practices (Dunlap et al., 2006; Joseph & Strain, 2003;
Smith & Fox, 2003). All of the programs aim to teach parents and children new skills,
with the focus for children on social skill development, improved compliance and
regulation of emotions, and increased academic engagement, while parent training
focuses on behavior management and parental attention to children’s development. Most
of the programs emphasize family collaboration with educators, training for teachers with
a focus on classroom-wide management, and the delivery of social-emotional/behavioral
curriculum in classrooms, while some advocate universal screening for early
identification of children with challenging behavior (Joseph & Strain, 2003; Smith &
Fox, 2003).
First Step to Success (Walker et al., 1998). This intervention program targets at-risk kindergartners with a goal of diverting these students from an antisocial trajectory in their school careers. The target children evidence early signs of antisocial behaviors including aggression, rule-breaking behavior, tantrumming, oppositional-defiant behavior, and bullying. Components of First Step to Success include: (a) universal screening of all kindergartners to identify at-risk children; (b) school intervention with teacher, peers, and target children; and (c) parent training to support school adjustment. Trained school consultants deliver the intervention with intensive direct student contact in the first phase to manage the use of a point system for children’s academic engaged behavior, enabling children to earn immediate rewards of free-time activities with peers as well as home privileges arranged with parents. Subsequently, the consultant provides supervision and support for teachers who assume the delivery of the school intervention in the second phase, consultative support to teachers during the maintenance phase wherein teacher praise and occasional rewards gradually replace the point system, and delivery of six parent-training lessons over a six-week period of time. Intervention within the classroom typically lasts for 30 days.

Walker and colleagues (1998) conducted a randomized control study of this intervention using a wait-list control group design with 46 kindergartners in two cohorts over two school years. Maintenance assessments were completed in first and second grades for Cohort 1 students and in first grade for Cohort 2 students. Significant results were obtained for higher teacher ratings of children’s adaptive skills (ES = 1.17) and improvements in academically engaged time (ES = .97), as well as lower teacher ratings of children’s maladaptive skills (ES = .93) and aggression (ES = .99). Teacher ratings of
children’s withdrawal were not significantly different \((ES= .26)\) across groups. Effects persisted into first and second grades for target students. Limitations of this study include an absence of control groups for the cohorts resulting in uncertainty about the influence of setting, time, or other extraneous factors on these results (Walker et al., 1998). Children scoring within the clinical range on the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983) at baseline had the most difficulty with the demands of the intervention. Carter and Horner (2007) investigated the addition of functional behavioral assessment and an individualized behavior support plan to the *First Step to Success* intervention, and found enhanced academic engagement and reduced problem behaviors for a 6-year-old student. An additional limitation of the *First Step to Success* program is that it was designed to target kindergarten students. Earlier interventions, however, are needed for this population of children as challenging behaviors, left unchecked, can be difficult to ameliorate by the time children enter formal school settings (Duncan, Forness & Hartsough, 1995). Recently, researchers explored use of a preschool version of *First Step to Success* in a pilot study with 12 subjects (Frey et al., 2013). Children’s social skills improved and problem behaviors decreased. Social validity data were collected, and parents rated the intervention favorably while preschool teachers rated it acceptable.

*Living with a Purpose Self-Determination Program (Forness et al., 2000).* This program advocates early detection of behavioral disorders in preschoolers ages 3 to 5 through universal screening, and the provision of prevention programming through a self-determination curriculum delivered to entire preschool classrooms. The curriculum aims to train children to improve social skills, listening, self-regulation, and problem solving
(Forness et al., 2000) through a multi-modal presentation that incorporates stories and role-playing. Four training sessions are offered to parents and preschool program service coordinators or family liaisons to familiarize them with the skills the children are learning.

A study of Head Start students compared 53 children in three classrooms who had participated in the Living with a Purpose program with 31 children in three control classrooms. The curriculum was co-taught in two half-day sessions per week for 12 weeks by a trained teacher and the Head Start teacher. One of the measures used in the study, the Problem Behaviors subscale of the Social Skills Rating System (Gresham & Elliott, 1990), was a forerunner of a measure used in the current study, the Social Skills Improvement System: Rating Scales (Gresham & Elliott, 2008). The researchers found that control group scores worsened over time on the outcome measures, while treatment group scores improved. Significant changes were reported for social interaction, adaptive behavior, inattention, and problem behaviors (Serna, Nielsen, & Lambros, 2000). Qualitative data from parents and teachers in both groups suggested higher consumer satisfaction with the self-determination curriculum than with the “business as usual” procedures of the control classroom.

This approach has a number of limitations, however, in that it pays little attention to the needs of children who require targeted interventions for persistent, challenging behaviors not responsive to the self-determination curriculum. The researcher concludes that prioritizing children identified with significant needs for immediate intense intervention may be more desirable than waiting to see if they respond to the curriculum’s primary prevention approach (Forness et al., 2000).
Incredible Years (Webster-Stratton et al., 2001). Webster-Stratton and her colleagues (2001) studied the implementation of two empirically validated programs for intervening with oppositional and conduct-disordered children preschool aged through first grade. One program was directed at parent training and one at teacher training. For purposes of the study, academic as well as social targets for intervention were included. Thirty-six Head Start classrooms were randomly assigned to treatment (Incredible Years Parent and Teacher training) and control (Head Start business as usual) conditions. In addition to the 61 Head Start teachers and assistant teachers for these classrooms, 272 4-year-old children and their primary caregivers participated. For the treatment group, parent training was provided in weekly group meetings for 12 weeks and focused on using positive discipline, parenting strategies, coping with stress, and promoting child social skills. The teachers and their assistants participated in workshops one day a month for six months wherein training focused on classroom-wide discipline and management, as well as strategies for promoting social competencies.

There were a number of significant findings in this study, including lower negative parenting scores, higher positive parenting scores, higher parent-teacher bonding, and fewer child conduct problems at preschool for treatment group participants on average. Fewer aggressive and noncompliant behaviors were observed in treatment children at school, and teachers reported fewer symptoms of attention/ hyperactivity problems and more social competencies for these children. Compared to the control group, treatment group children demonstrated significantly fewer conduct problems at home when their parents attended at least six parent training sessions. One year later, this effect was maintained.
This study highlighted the utility of training teachers as a relatively inexpensive and sustainable approach to improving children’s behavioral and social outcomes. Parent training, however, had mixed results, impacted by poor attendance and low parental readiness to change. Fully 37% of the parents did not attend any of the parent training sessions, while only 51% attended 6 or more of the 12 sessions. This suggests that flexibility in methods and locations for delivering such parent training are warranted. Home-based models of parent training or technologies such as computers or Ipads hold promise for responding to family schedules and needs when interventions seek to promote parent training. Another concern expressed by the researcher was that positive treatment effects for parent-teacher bonding were not maintained one year later. Interventions are needed that enable parents to become empowered such that they feel competent in establishing goals to meet their children’s needs and confident as educational advocates for them, both in current preschool settings and as children transition into formal school settings.

**Prevent-Teach-Reinforce for Young Children (PTR-YC; Dunlap et al., 2013).**

Dunlap and colleagues (2013) developed an individualized and intensive system of intervention for use with toddlers and preschoolers who display persistent challenging behaviors that have not responded to universal approaches to positive behavioral support within a preschool classroom or direct teaching of classroom expectations and social skills. *PTR-YC* is a five-step intervention process comprised of (a) forming a collaborative team and setting a behavior change goal; (b) designing a feasible classroom data collection system; (c) conducting a functional behavioral assessment; (d) devising a behavior intervention plan with one or more strategies to address the intervention’s three
core components— to prevent, teach, and reinforce; and (e) collecting progress monitoring data to inform the team’s next steps. The intervention model was designed for use in inclusive preschool settings, and has been manualized to promote treatment fidelity. Controlled trials of PTR-YC are currently underway, thus, efficacy data is not yet available for this intervention. The researchers, however, describe evidence for the model’s effectiveness from the literature on PBS (Dunlap & Fox, 2009), functional assessments for developing behavioral plans (Dunlap & Fox, 2011), and effective behavioral changes when the prototype intervention was used in elementary school settings (Iovannone et al., 2009).

PTR-YC’s strengths include its structured, team-based approach to intensive intervention and its use of ABA principles to devise appropriate, individualized antecedent conditions, teaching strategies, and reinforcements to address children’s behavioral goals. The intervention process is guided by data-based decision making. A limitation of this intervention, however, is its failure to recruit parents as active partners in delivering similar preventative, teaching, and reinforcement strategies to children with challenging behaviors in the home and community settings where they spend many hours outside of preschool classrooms.

While all of the above programs have, to one degree or another, demonstrated effectiveness for addressing some of the needs of children with challenging behaviors, their parents, and teachers, limitations remain for each. Some require highly trained consultants to facilitate implementation making them expensive to utilize and prohibiting attempts to bring them to scale. Several do not address the sorts of individualized strategies required for children in need of intensive, individualized interventions.
Although most of these interventions attempt to utilize parent training approaches, they are not doing so through collaborative parent-teacher partnerships. Reliance on group training of parents is beset by a host of problems. Interventions that engage parents and teachers in collaborative partnerships for increasing positive adult-child interactions, setting goals for behavior change, and developing individualized, effective plans for helping children learn positive social skills are critical for children with the most challenging of behaviors.

**Characteristics of the Getting Ready model of intervention.** Another model of intervention that has potential for providing an approach for this population that is ecological in nature, integrated, family-centered, collaborative, and research-based is the *Getting Ready* model of intervention (Sheridan, et al., 2008). *Getting Ready* holds promise for building the sort of collaborative partnerships between parents and teachers that are essential for addressing the needs of children with challenging behaviors across the environments where they typically spend their days (Sheridan et al., 2008). The relationship-based intervention was developed to promote school readiness in low-income children below the age of 5 who were enrolled in early education programs. *Getting Ready* aims to use ecological approaches such as strengthening parent-child relationships to foster children’s learning and strengthening parent-professional relationships to encourage effective partnerships. Stronger relationships serve as mechanisms for promoting school readiness for both at-risk children and their families.

The *Getting Ready* intervention integrates two key approaches in its efforts to promote positive outcomes for children and their families. First, triadic coaching strategies (McCollum & Yates, 1994) support positive professional-parent-child
interactions and encourage parent engagement in promoting children’s learning and development. Secondly, conjoint behavioral consultation principles (Sheridan & Kratochwill, 1992) add a framework for collaborative planning among parents, preschool teachers, and Early Intervention (EI) coaches to identify desired outcomes for children, plan behavioral strategies to attain those outcomes, implement plans, and formulate data-based decisions about the effectiveness of strategies (Sheridan et al., 2008).

**Triadic coaching strategies.** Harsh parenting practices, as well as maternal rejection and depressive symptoms have been found to consistently predict early externalizing behavior problems in children (Shaw et al., 1998; Spieker et al., 1999; Supplee et al., 2004). These effects may be buffered through the promotion of parents’ positive engagement with their children. The *Getting Ready* intervention targets improvements in the following qualities of parental engagement that have been found to be particularly salient for boosting children’s adaptive characteristics: (a) warmth and sensitivity, (b) support for autonomy, and (c) active involvement in children’s learning (NICHD Early Child Care Research Network, 2002; Weigel, Martin, & Bennett, 2006).

Classroom teachers, trained in using *Getting Ready* interventions, employ triadic coaching strategies with parents to improve dyadic parent-child interactions. The triadic strategies include establishing a strong relationship with parents, prompting parents to observe and share children’s strengths, affirming parents’ competencies in observed interactions with their children, promoting and supporting a context for dyadic interactions, providing developmental information, brainstorming, modeling, and making suggestions to strengthen parent competencies and confidence for interacting in a positive manner with children now and in the future (Knoche et al., 2010; Sheridan et al., 2008).
These strategies support quality dyadic parent-child interactions, so that parents achieve optimal balance between stimulating and supporting children’s learning (McCollum & Yates, 1994).

**Collaborative planning.** The collaborative planning process (Knoche et al., 2010; Sheridan, Clarke, Knoche, & Edwards, 2006) featured in the *Getting Ready* intervention harnesses the power of evidence-based behavioral strategies. Parents and preschool teachers, with the assistance of the EI coach as facilitator, prioritize concerns for and needs of children and select behavioral targets/goals and relevant strategies that may be readily implemented in partnership across home and educational settings. Some commonly used strategies include differential reinforcement for positive behavior, antecedent interventions, shaping, modeling, and practice of social skills. The collaborative team, composed of EI coach, parent, and preschool teacher, plans for the implementation of each strategy and how the child’s response to the strategy will be measured. Subsequent team meetings address evaluation of measurement data and decisions are made about continuing or adapting the plan or changing the behavioral target. Thus, the *Getting Ready* model of intervention offers parents and preschool teachers a system for sharing responsibility for fostering needed changes in children.

**Potential benefits of Getting Ready for children with challenging behaviors.**

This approach has the potential for effecting noticeable reductions in children’s challenging behaviors in several ways. First, the approach provides the tools needed for interventionists to promote positive parent-child interactions, increasing parents’ abilities to respond warmly to children, set appropriate limits, and offer development-instigating home experiences. Secondly, parents and teachers are prompted to jointly identify and
address specific concerns for children’s development. Through collaborative planning these partners are able to devise concrete, readily-useable strategies with a goal of consistent implementation across children’s primary environments of home and preschool, and employ a data-driven decision making process to evaluate the effectiveness of the strategies (Sheridan et al., 2006). This collaborative parent-teacher partnership nurtures parents’ active involvement in their children’s educational development and allows parents to gain competence as their children’s educational advocates. All of this has the potential to advance children’s social, emotional, and behavioral skills both in the present, as well as the future.

**Studies of Getting Ready to date.** Early studies of the Getting Ready model of intervention have demonstrated that implementation yields improvements in a host of child and family outcomes. To date, enhanced social-emotional skills, reduced activity levels, increased language use, and stronger early reading and writing skills have been found for preschool-aged children enrolled in Head Start programs using the Getting Ready intervention (Sheridan et al., 2010; Sheridan et al., 2014; Sheridan et al., 2011). There have been particularly salient results for preschool children with a multiplicity of risk factors for difficulty with future school success. A significantly greater rate of growth in children’s expressive language was found when children in the treatment group evidenced developmental delays relative to children without such concerns who received Getting Ready and children in the comparison group (Sheridan et al., 2011). When the mothers of preschoolers participating in Getting Ready suffered from depression, the children showed significantly greater gains in positive affect and use of verbalizations than children of the non-depressed mothers in the intervention and the children in the
comparison group (Sheridan et al., 2014). When families of infants and toddlers participated in *Getting Ready*, parents displayed higher quality of warm and sensitive parent-child interactions and support for their children’s autonomy, as well as more appropriate use of directives with and support for learning of the children (Knoche et al., 2012), while children evidenced improved language skills (Marvin, Kuhn, & Knoche, 2014).

In a randomized control trial (RCT), Head Start teachers who had been trained in *Getting Ready* strategies, delivered the intervention primarily during five home visits and two parent-teacher conferences of about an hour each conducted throughout the school year. Preschool children in the *Getting Ready* treatment group displayed gains relative to the control group for several interpersonal competencies such as attachment to adults, initiative, and less anxiety and withdrawal (Sheridan et al, 2010). In addition, when gender and disability concerns were controlled, children in the treatment group evidenced significantly reduced levels of activity compared to those in the control group (Sheridan et al., 2014). A well-regulated activity level, indicating fewer challenges related to children’s higher activity levels such as difficulties sitting still, or tendencies to fidget or run around, is considered an important learning-related behavioral competency (Hinshaw, 1992; Li-Grining, Votruba-Drzal, Maldonado-Carreño, & Haas, 2010). No significant differences, however, were seen between groups for other externalizing behavioral concerns such as anger, aggression, or poor self-control. The researchers found the above result regarding the children’s anger, aggression, and poor self-control surprising, given the literature demonstrating an association between warm, sensitive parenting and young children’s self-control (Sheridan et al., 2010).
Further exploration of this model of intervention for children with these sorts of challenging behaviors is, therefore, warranted (Sheridan et al., 2010). A large RCT of the Getting Ready intervention, focusing more specifically on children with identified developmental needs is underway, but preliminary data regarding its effects have not yet been reported. The new study sample for this RCT included children demonstrating delays or concerns in cognitive, language, and/or social/emotional development. EI coaches were assigned to all parent/teacher teams during Year 1 to provide targeted support for collaborative planning. Additional attention to collaborative planning by teams of EI coaches, preschool teachers, and parents is believed to enhance the model’s effectiveness for improving child, family, and classroom outcomes for this high risk population of preschoolers, including a reduction of children’s challenging behaviors and improvement in their social competencies across home and preschool settings (Sheridan et al., 2012).

Furthermore, gathering information about Getting Ready participants’ experiences with the intervention would provide a description of the process and explore the social validity of the intervention, particularly for parents and teachers of children with challenging behaviors. It would be helpful to understand these participants’ perspectives of (a) the importance of the intervention targets, (b) the level of ease of implementation of behavioral strategies, and (c) the effectiveness of the strategies for changing the behavioral trajectories of children with challenging behaviors.

**Mixed Methods Designs in Early Intervention Research**

Over the past two decades, researchers in the field of early intervention have employed mixed methods strategies to better understand a variety of topics, such as
inclusion (Buysse, Wesley, Keyes, & Bailey, 1996; Li, Marquart, & Zercher, 2000), young children’s social-emotional/behavioral development (Branson & Demchak, 2011; Schwartz & Olswang, 1996), and family functioning (Povee, Roberts, Bourke, & Leonard, 2012). This practice flows from the pragmatic stance of scholars who hold that social research can benefit from the multiple perspectives offered by the different methods employed, thus gaining an enriched understanding of the topic of study (Li, et al., 2000).

Parent and teacher perceptions of early intervention services have, in particular, been the focus of several mixed methods studies. Murphy, Lee, Turnbull, & Turbiville (1995), for example, utilized an exploratory sequential mixed methods design to develop an instrument that assessed practitioners’ use of family-centered services. The instrument was developed from qualitative information gathered in a focus group interview with parents and early intervention practitioners, and subsequent quantitative measures were used to determine its validity and reliability as a measure of the construct of family-centered service delivery. Branson & Demchak (2011) used a concurrent explanatory mixed methods design to better understand teachers’ use of evidence-based practices associated with the Teaching Pyramid, a tiered model of positive behavior support, in toddler classrooms. Qualitative data was collected through structured interviews with the classroom teachers, while quantitative data was collected through the completion of two instruments that yielded information on (a) evidence-based practices related to preventing challenging behaviors in the classroom, and (b) the quality of the early care and education environment. After data analyses were completed, qualitative and quantitative results were reported and discussed in an integrated fashion. The researchers reported that
toddler teachers used some evidence-based practices associated with universal, secondary, and tertiary levels of the Teaching Pyramid. Other potentially helpful practices, however, were missing or partially implemented, with more robust implementation of this set of evidence-based practices associated with higher quality classroom environments. Studies such as these demonstrate that a mixed methods design is particularly well-suited to gain a deeper understanding of parents’, teachers’, and EI coaches’ experiences of the Getting Ready intervention process being tested in a larger experimental study. The proposed study, using a mixed methods approach, offers multiple ways of viewing potential benefits and issues (Creswell & Plano-Clark, 2011) of the Getting Ready intervention for a subset of children demonstrating challenging behaviors and their families and teachers.

**Purpose of the Study**

The purpose of this study is to provide a more in-depth examination of the Getting Ready intervention for a vulnerable population of young children, those with multiple risk factors including challenging behaviors. The study aims to (a) explore relationships among child, parent, and teacher characteristics when the children demonstrate risk factors associated with challenging behaviors; (b) discover how young children with challenging behaviors, their parents, and preschool teachers changed over the course of one year’s participation in the Getting Ready intervention; and (c) describe parents’, teachers’, and EI coaches’ experiences with the collaborative partnership process, in an effort to ascertain the practical utility and meaningfulness of the Getting Ready intervention for these participants.

**Research Questions and Hypotheses**
A mixed methods approach in three phases was used in this study to answer five research questions. Phase 1, the quantitative phase of the study, aimed to answer these two questions:

1. What relationships existed between children’s challenging behaviors at baseline (Time 1), defined as standardized scores at or above the 75th percentile on a measure of this construct, and other child, parent, and teacher characteristics (e.g. children’s cognitive, language, social skills, and executive functioning; parents’ involvement in children’s education; and, parent-teacher and teacher-student relationships)?

The researcher hypothesized that higher scores, reflective of greater frequency and/or intensity of children’s displays of challenging behaviors, would be associated with lower ratings of parent involvement in the children’s education and lower ratings of teacher-parent and teacher-child relationships. The researcher also hypothesized that while there would not be a significant association between children’s challenging behavior scores and children’s cognitive development due to the selection criteria for participation in this study, there would be a negative association between such scores and children’s language abilities, social skills, and executive functioning as they began their preschool programs at age 3.

2. For children with challenging behaviors, again defined as standardized scores at or above the 75th percentile on a measure of this construct, what changes were noted for the children’s developmental and behavioral skills, their parents’ involvement in their children’s education, and the relationships of children and parents with preschool teachers from Time 1 to Time 2, over the course of one school year’s participation in the Getting Ready intervention?
The researcher hypothesized that children’s social skills, language skills, and executive functioning would improve, while parent and teacher reports of children’s challenging behaviors would decrease over one school year of enrollment in preschool and participation in the Getting Ready intervention. Further, it was hypothesized that parents would report stronger relationships with the teacher and increased parent involvement in their child’s education. For teachers, it was hypothesized that ratings of teacher-child and teacher-parent relationships would improve.

Phase 2, the qualitative phase of the study, focused on the following two questions:

3. What was the process various teams of parents, teachers, and EI coaches used to address their individual and collective needs related to interactions with the child with challenging behaviors?

4. How did the parents, teachers, and EI coaches of the children with challenging behaviors describe their experiences with the Getting Ready intervention in terms of importance of intervention targets, ease of implementation of strategies, the effectiveness of the strategies, and their assessment of child, family, and classroom functioning during the intervention (Strain et al., 2012)?

Finally, both quantitative and qualitative results were integrated and synthesized in Phase 3 to answer this research question:

5. With regard to supporting young children with challenging behaviors, what understanding of the particular processes utilized in the Getting Ready intervention emerged from integrating the explanatory qualitative data about participants’ experiences
with Getting Ready with quantitative outcome data from child assessments, and parent and teacher rating scales?
CHAPTER 3

METHODS

Study Design

A mixed methods approach was used to answer the research questions because this type of research design blends elements of qualitative and quantitative research approaches to provide a broader and/or deeper understanding of a central phenomenon, in this case, interventions that work and are socially valid for young children displaying challenging behaviors (Johnson, Onwuegbuzie, & Turner, 2007). This process was accomplished by collecting, analyzing, and integrating qualitative and quantitative data at specified phases within a single study (Creswell & Plano Clark, 2011). The core premise of this methodological design is that use of a combination of qualitative and quantitative approaches will result in a more complete understanding of the research topics under study than either approach would in isolation (Creswell & Plano Clark, 2011; Greene et al., 1989).

The study utilized a sequential explanatory mixed methods design executed in three phases, beginning with a quantitative strand (Phase 1), utilizing those emergent findings to inform a qualitative strand (Phase 2), and concluding with an analysis that integrated the results of the two strands (Phase 3). Phase 1 focused on relationships between and changes in measured child, parent, and teacher variables of interest. Phase 2 endeavored to follow up on and/or explain initial results of the quantitative strand in more depth (see Figure 1). Phase 2 also aimed to describe the experiences of parents, preschool teachers, and Early Intervention (EI) coaches who utilized the Getting Ready intervention as well as examine the process used by the collaborative teams to intervene with young
children with challenging behaviors (Sandelowski, 1996). The qualitative approaches enhanced the meaning of the quantitative findings, and together, provided the opportunity for a richer, deeper understanding of the Getting Ready intervention for children with challenging behaviors, their parents, preschool teachers, and EI coaches.

A sequential explanatory design can pose challenges. First, these sorts of designs frequently require a lengthy time frame to complete. Quantitative data for the variables of interest in this study, however, were available from the larger Getting Ready project archived data base. Secondly, a number of child, parent, and teacher variables were examined in the quantitative strand, but decisions regarding what results warranted further exploration in the qualitative strand were made promptly at the conclusion of the quantitative data analysis. The flexibility in this design offered options to choose to select both significant and non-significant results from the quantitative strand for further study in the qualitative strand (Creswell & Plano Clark, 2011). Thirdly, decisions regarding criteria for participant selection for the qualitative strand were easily made, since access to parents, teachers, and EI coaches for interviews was a priority for this investigator. The only four children from Phase 1 who continued to participate in the larger Getting Ready project after one year were logically selected as cases for further study in Phase 2. Finally, it can be challenging to integrate the quantitative and qualitative results when different research questions are being answered by the two strands of the study. The researcher, however, aimed to address some questions with quantitative results, address other questions with qualitative results, and then synthesize the findings from both strands, using the qualitative results to expand upon and explain the quantitative findings (Greene et al., 1989). Mixing of the results from both strands, therefore, provided an
enriched understanding of the impact of a collaborative partnership intervention for this population of children with challenging behaviors that quantitative or qualitative strands alone could not deliver.

**Setting and Participants**

This study focused on a subset of participants from Cohort 1 of a project investigating a larger sample of preschool children in rural and urban areas of a Midwestern state. The preschoolers were enrolled in Head Start or state-funded pre-kindergarten programs for children with multiple risk factors for school success and their families. For the larger project, 200 3-year-olds, their families, preschool teachers, and subsequent kindergarten teachers were enrolled in two cohorts to participate in a three-year randomized control trial (RCT) of the effects of the Getting Ready intervention on a variety of child, family, and teacher outcomes from 2012 to 2015. In the first year of the RCT, preschool teachers were recruited for the project from four collaborating agencies, and teachers who consented to participate were randomly assigned into treatment and control groups. One hundred thirty-three families provided consent for children to be screened to determine eligibility for participation in the RCT. For Cohort 1, 95 children met the project criteria for educational risk since they fell at or below the 25th percentile on the concepts, language, or social development domain on the Developmental Indicators for the Assessment of Learning-4 (DIAL-4; Mardell & Goldenberg, 2011). Seven of these children’s families moved or later declined to participate. Eighty-eight children remained in Cohort 1. These children and their families were assigned to the experimental condition based on their teacher’s assigned condition. This resulted in 45 children assigned to the treatment group and 43 children assigned to the control group.
This researcher was interested in investigating a subset of the 45 children assigned to the treatment group of Cohort 1. The *Getting Ready* intervention was implemented with and data collected from the children, their parents, and preschool teachers in the Cohort 1 treatment group for two years (Year 1 and Year 2), while the children attended preschool. Follow-up data was collected when the children attended kindergarten in Year 3. Quantitative data for this subset of children from the Cohort 1 treatment group were collected for the current study during Year 1, while qualitative data from documents and audio-recordings were collected during Year 1 and interviews were conducted during Year 2. There were 26 male and 19 female children in the Cohort 1 treatment group and their mean age was 3.8 years (range = 3.2 to 4.4). They were served by 16 preschool teachers, and four EI coaches were assigned to individual teachers to provide support for their implementation of the *Getting Ready* intervention.

**Selection criteria for current study.** The researcher accessed the de-identified project data base from Year 1 for all 45 of the Cohort 1 children in the treatment group, retrieved available raw scores, and calculated percentile scores for the parent and teacher versions of the Problem Behaviors domain of the Social Skills Improvement System-Rating Scales (SSIS; Gresham & Elliott, 2008). Those children whose scores fell at or above the 75th percentile on either version of this measure at Time 1 (baseline data collected in the fall of Year 1) were selected for the current study because their scores indicated a frequency, intensity, and/or duration of challenging behaviors greater than 75% of their peers. Nineteen children were thus identified for this study.

None of these 19 children had received formal mental health diagnoses per the Diagnostic and Statistical Manual of Mental Disorders- 5th Edition (DSM-5 or earlier
versions; American Psychiatric Association, 2013) protocol. Six children had been identified for services of special education per federal and state verification guidelines and had current Individualized Education Programs (Individuals with Disabilities Education Act; IDEA; 2004). Details regarding the nature of their developmental delays/disabilities or focus of their educational plans were not, however, available to the researcher.

The 19 children selected for participation in the current study included 13 males and six females. Their mean age was 3.9 years (range = 3.8 to 4.3). The children were served by one of 11 preschool teachers, and one of three EI coaches, assigned to support teachers’ efforts to implement the Getting Ready intervention with the children and their families. Table 2 provides additional demographic and background information about this sample of children, their parents, and preschool teachers. These 19 children were the focus of Phase 1, the quantitative strand, of the study.

Four cases from the 19 cases identified in Phase 1 were purposively selected for further investigation in Phase 2 of the study. These four cases were selected because the families, teachers, and EI coaches had a complete set of data from Year 1 participation in the larger RCT study and had all agreed to continue into Year 2. This assured they all had a similar length of experience with the Getting Ready intervention and were available for recruitment to participate in this additional phase of the current study.

Procedure

**Intervention—Getting Ready.** As part of the larger RCT study, preschool teachers in the treatment group received an initial 2-day training on the strategies that are foundational to the Getting Ready intervention, and on-going professional development
twice monthly from an EI coach (one 60-minute individual coaching session and one 60-minute small group session with other treatment group teachers). Teachers were expected to utilize the strategies to develop collaborative partnerships with parents, promote positive parent-child interactions, and increase parental attention to children’s learning during two parent-teacher conferences and up to four home visits throughout the school year, as well as during other casual family contacts, such as school pick-up and drop-off. One home visit per family each year was video-recorded and both parent-teacher conferences were audio-recorded. These recordings were used to assess teachers’ and EI coaches’ fidelity to the intervention protocol.

The EI coaches, assigned to provide on-going support to teachers in their use of *Getting Ready* strategies, were highly qualified, experienced early childhood professionals. Members of the research team provided EI coaches five days of initial training in foundational principles and strategies of the *Getting Ready* model, approaches for promoting adult learning through coaching, and strategies for engaging parents and teachers in collaborative, problem-solving partnerships. Research team members maintained on-going contact with EI coaches through individual reviews of collaborative team meetings and group sessions to ensure fidelity to the *Getting Ready* model and to address implementation challenges. EI coaches observed in each teacher’s classroom eight hours per month in Year 1. They also facilitated collaborative goal selection, problem-solving, and intervention planning and monitoring (Sheridan & Kratochwill, 2008; Sheridan et al., 2008) during meaningful parent contacts scheduled up to six times throughout the year. These contacts included twice yearly parent-teacher conferences as well as the additional home visits during Year 1 of the project. During these contacts,
parents and professionals aimed to use data-based, shared decision-making strategies to address children’s learning or behavioral challenges. Thus, in addition to the typical educational, parenting, and social supports provided by participation in the preschool programs, parents and children in the treatment group received an added value—the Getting Ready intervention.

**Data collection and analyses.** The current study was conducted in three phases. Phase 1 addressed the first two research questions and relied on a subset of archival quantitative data from the larger RCT for the 19 cases under study. Phase 2 addressed the third and fourth research questions and relied on three sources of information: a subset of archival documents and audio-recordings collected throughout Year 1 of the intervention for the purposive sample of four cases, and new interview data from parents, teachers, and EI coaches for these four cases collected mid-way through Year 2 of the intervention. In Phase 3, the fifth research question was addressed through integration and synthesis of findings from the earlier phases.

**Phase 1: Quantitative strand.** The RCT project staff collected quantitative data at Time 1 (baseline in September—October prior to intervention) and Time 2 (April—May after one school year of intervention) during Year 1 of the project. It should be noted that participants received about 5 months of the Getting Ready intervention between the Time 1 and Time 2 data collection points. The archival data for the 19 selected cases in Cohort 1 were analyzed in the current study. Ten measures focused on child development and behavioral constructs, parent involvement in children’s learning, and parent-teacher and teacher-child relationships. Table 3 offers a detailed description of the 10 measures, the type of data yielded, and information regarding their reliability.
**Child measures.** Children were assessed at Time 1 and Time 2 through a variety of formats. Trained and reliable data collectors used direct, individually-administered tests with children within their preschool settings. These tests measured children’s cognitive skills (Bracken Basic Concept Scale Third Edition: Receptive; BBCS; Bracken, 2006) and language development (Peabody Picture Vocabulary Test- Fourth Ed.; PPVT-4; Dunn & Dunn, 2007; Expressive Vocabulary Test- Second Ed.; EVT-2; Williams, 2007). Parents and teachers completed checklists for some child measures. Parents did so independently or with the support of research assistants during scheduled family assessment sessions held at the preschool site or other public location, at Time 1 and Time 2. The parent-completed checklist tapped parent perceptions of two aspects of children’s social-emotional/behavioral development, namely problem behaviors and social skills (Social Skills Improvement System- Rating Scales- Parent Version; SSIS; Gresham & Elliott, 2008). Teachers independently completed checklists regarding their perceptions of the children’s executive functioning (Behavior Rating Inventory of Executive Function- P; BRIEF-P; Gioia, Isquith, Guy, & Kenworthy, 2000), as well as children’s problem behaviors and social skills (Social Skills Improvement System-Rating Scales- Teacher Version; SSIS; Gresham & Elliott, 2008).

**Parent-completed measures.** Assessments of parent variables also occurred at Time 1 and Time 2. Each time, parents were asked to complete two parent measure checklists and a demographic questionnaire, in addition to the child measure checklists. The parent measure checklists tapped parental involvement in their children’s education (Family Involvement Questionnaire; FIQ; Fantuzzo, Tighe, & Childs, 2000) and the
parents’ perceptions of their relationships with their children’s teachers (Parent-Teacher Relationship Scale- Parent Version; PTRS-P; Vickers & Minke, 1995).

*Teacher-completed measures.* Two teacher variables were assessed at Time 1 and Time 2. Teachers were asked to complete two rating scales exploring the teachers’ perceptions of the teacher-child relationship (Student-Teacher Relationship Scale; STRS; Pianta, 2001), and parent-teacher relationship (Parent-Teacher Relationship Scale-Teacher Version; PTRS-T; Vickers & Minke, 1995), in addition to the child measure checklists. Teachers completed a demographic questionnaire at Time 1 as well.

*Data analyses.* The frequency and distribution of scores for each of the 10 measures were plotted and examined, and most variables displayed non-normal distributions. In light of this fact, and the small sample size, nonparametric statistical methods were chosen to further analyze the data.

Univariate statistics, including the median and inter-quartile range, for each measure were calculated. One-sample median tests and goodness of fit Chi-square tests were computed to compare characteristics of this sample at Time 1 to what is known about the population from which it was drawn (Gravetter & Wallnau, 2009). No significant differences were found between the sample and the larger population of participants in Cohort 1 of the RCT for age of child ($t (18) = .982, p = .339$), age of parent ($t (18) = .687, p = .501$), or highest level of parent education ($\chi^2 (1) = .211, p = .646$). Furthermore, there were 13 boys and 6 girls in the sample of children with challenging behaviors. This distribution was not significantly different than the hypothesized distribution that 52% of the children would be boys and 48% girls ($\chi^2 (1) = 1.9, p = .168$). Studies to date regarding gender differences in preschool children with
challenging behaviors have produced inconsistent findings (Campbell, 1995; Prior, Smart, Sanson, Pedlow, & Oberklaid, 1992).

Relationships between children’s challenging behavior scores and the other child, parent, and teacher variables at Time 1 were analyzed using Spearman’s correlation to test the rank order relationship between them. In addition, changes in the median scores on all measures from Time 1 to Time 2 were evaluated with the Wilcoxon signed-ranks test. This procedure compared the distributions of scores on the quantitative variables obtained for the participants’ repeated measures. Thus, the scores that were compared were from the same variable for the same participants measured at Time 1, prior to any treatment, and Time 2, after one school year of Getting Ready intervention. This provided an evaluation of the change in the scores from Time 1 to Time 2 during the school year that the subjects participated in the Getting Ready intervention (Gravetter & Wallnau, 2009). Effect sizes for the results of the Wilcoxon signed-ranks tests were calculated using the following formula, were $z$ is the test statistic and $N$ the total number of the samples:

$$ r = \frac{z}{\sqrt{N}} $$

Effect sizes below .3 were considered negligible, while those .3-.5 were considered of medium magnitude, yet indicating some practical benefit, and effect sizes over .5 were considered large (Cohen, 1988).

Point of mixing. Results from Phase 1 informed the methods and procedures used in Phase 2 of the study. A brief summary of the Phase 1 results is provided here to explicate this process. Essentially, children’s problem behaviors as reported by their teachers were found to be related to children’s difficulties with executive functioning,
fewer social skills, and lower quality teacher-child relationships. In addition, over the course of one year’s participation in preschool augmented by the *Getting Ready* intervention, children with challenging behaviors did not evidence reduced problem behaviors or difficulties with executive processing, increased social skills, or improvements in teacher-child relationships, as reported by their teachers or parents. The children did, however, improve in expressive language skills. These results were explored in greater detail in Phase 2 in a desire to explain what participants did or did not experience in the *Getting Ready* intervention.

**Phase 2: Qualitative strand.** The approach selected for this strand was a basic qualitative study. This phase focused on gaining a deeper understanding of the *Getting Ready* experiences for four children with challenging behaviors, their parents, preschool teachers, and the EI coaches. This phase was designed to better understand (a) the process used to select targets and develop strategies to address parents’ and teachers’ concerns regarding children’s development, (b) how participants interpreted the *Getting Ready* intervention process, and (c) what meaning or impact they ascribed to their experiences with the *Getting Ready* intervention (Merriam, 2009).

*Data collection and analysis.* A four-step iterative process was used to collect and analyze two sources of data for Phase 2. Qualitative data collected in conjunction with the larger *Getting Ready* project during Year 1 was used along with new interview data collected in Year 2 of the project for four selected cases. See Table 4 for a summary of these data sources and collection points.

Step 1. Selected documents completed by parents, teachers, and EI coaches during each of their five collaborative team meetings included collaborative planning
documentation forms, home-school plans, and *Getting Ready* performance rating scales (used by parents and teachers for data collection); one child’s team met six times resulting in a total of 21 sets of documents for review in this study. In addition, parents and teachers were audio-recorded during the two parent-teacher conferences in Year 1. The audio-recording from the second half of Year 1 for each case was selected for qualitative analysis. Finally, all parents in the larger study were called by a research assistant up to three times during the first year of the study and a modified version of the *Parent Daily Report* (PDR; Chamberlain & Reid, 1987) was completed through phone interviews. Two PDRs for three of the four selected children were analyzed as part of Phase 2. One was completed in March/April and one in May/June of Year 1. Research assistants were unable to contact the fourth child’s parents to complete the phone interviews. Reliability information for the modified version of the PDR used in the project was not available, however, overall test-retest reliability (.60), inter-interviewer reliability (.98), and inter-parent reliability (.51) were reported for the original PDR (Chamberlain & Reid, 1987).

As documents were collected, the researcher read through them and jotted down preliminary observations for future analytic consideration directly in the margins of the documents (Saldaña, 2013). Next, a coding protocol was used while reviewing each archival document and audio-recording to enable systematic recording of specific data units gleaned from across all these sources of information (see Appendix A). The following guiding questions were used as the researcher reviewed the artifacts; impressions, concepts, and/or quotes were typewritten on the protocols:

1. What are people doing? What are they trying to accomplish?
2. How, exactly, do they do this? What specific means and/or strategies do they use?

3. How do members “talk” about, characterize, and understand what is going on?

4. What assumptions are they making?

5. What do I see going on here?

6. What did I learn from these artifacts? (R. Emerson, Fretz, & Shaw, 2011, p. 177)


Step 2. One-on-one interviews were scheduled with individual parents, preschool teachers, and EI coaches for the four cases. It was possible in the interviews to ask follow-up questions related to initial impressions or missing information from the documents and audio-recordings.

The researcher contacted parents by phone, seeking their agreement to participate in one-on-one interviews for this phase of the study. Similarly, preschool teachers and EI coaches were contacted by phone or e-mail and invited to participate in one-on-one interviews as well. All participants agreed to meet with the researcher. The consent form was explained to the participants and their questions were answered prior to asking them to sign the form and begin the interview. Interview participants were offered $35 as compensation for their participation in the study. It was felt that this compensation offered the participants a small incentive to donate their time for the interview, but it was not a large enough amount to be coercive.

The researcher conducted the one-on-one interviews with a total of nine participants: four parents, three pre-school teachers (one teacher taught two of the children), and two EI coaches (one coach supported three of the children’s teams and another supported one child’s team). Interviews lasted 30 to 40 minutes, and were
completed over the course of one month. When professionals served more than one child, they were interviewed repeatedly to focus their attention on the characteristics of and experiences with each child’s particular team. The interviews occurred during the participants’ second year of enrollment in Getting Ready, thus, the information provided by this method uniquely reflected the status of children, parents, teachers, and coaches after 1½ years of Getting Ready intervention. The parents, all mothers, chose to be interviewed in their homes, and three of the selected children were present when their parents were interviewed. The researcher traveled to the preschools to interview teachers, while the coaches were interviewed in a conference room on the university campus.

Parent, teacher, and EI coach interview protocols were developed (see Appendix B) to guide data collection. Inquiry conducted during this phase aimed to further the researcher’s understanding of the meaning, utility, and acceptability of the Getting Ready intervention for those who participated in it. Therefore, questions were designed to explore the lived experiences of the participants, their assessment of the importance of the targets for children’s learning chosen by each team, the ease of implementation of the strategies used with the children, anything they might change about the process, and their perspectives on child, family, and classroom functioning during the Getting Ready intervention process. Follow-up questions allowed the researcher to probe for additional information or clarification of participant statements. The researcher took notes during the interviews, and interviews were audio-recorded and transcribed verbatim by the researcher.

Step 3. Transcriptions of audio-recorded interviews and coding protocols for the reviewed artifacts were uploaded to MAXQDA (Kuckartz, 2007) software for data
storage and organization, ease of coding, and thematic development. A constant comparative method of analysis was performed (Merriam, 2009). In an iterative and inductive fashion, the texts were read, meaningful segments of text identified, and segments labeled with initial codes. Categories of codes were then aggregated to identify patterns or establish themes. Connections between themes were noted. This resulted in a thick, rich description of the participants’ experiences with the Getting Ready intervention process as well as naturalistic generalizations of “what was learned” (Creswell, 2013, p. 191).

Step 4. Multiple validation strategies were employed to gauge the accuracy of the findings (Creswell, 2013; Merriam, 2009). First, a peer review of the coding process was conducted. A senior faculty member at the university with expertise in preschool education and early intervention programs read through the meaningful segments of text and found the codes assigned to segments, as well as the placement of codes into subsequent categories and themes, to be reasonable. Secondly, the various data sources including documents, audio-recordings, and face-to-face interviews were examined for triangulation, that is, corroboration of themes (Creswell, 2013; Denzin, 1978). Finally, after a description of participants’ lived experiences was developed, all interview participants were invited to review a written summary of the findings and conclusions (see Appendix C for parent version of the member check). This member check resulted in five participants providing feedback to the researcher, and the description of participants’ experiences was revised as needed to reflect their feedback.

**Phase 3: Findings resulting from mixing of methods.** At this phase of the study, both quantitative and qualitative data were used together to answer the final research
question. The aim of this integrative phase was to provide a deeper understanding of how young children with challenging behaviors, their parents, their preschool teachers, and the EI coaches who support collaborative parent-teacher partnerships experienced the process of participating in the Getting Ready intervention. Interpretations thus drawn from the first two phases of the study, as well as across these phases, had the potential to improve the quality of inferences (Teddlie & Tashakkori, 2009).

Data analyses. The researcher considered the concordance or discordance of the quantitative and qualitative findings. Possible explanations for the quantitative findings uncovered in the qualitative data analyses were explicated. Finally, the researcher synthesized findings about the Getting Ready process of intervention in an effort to enhance understanding of the conditions under which this intervention might prove to be of practical use. Discussion of these integrated findings is found in Chapter 5.

Ethical Considerations

The researcher received approval from the principal investigators of the larger RCT study to conduct these complementary analyses of data for a subset of that project’s subjects. The researcher received Institutional Review Board (IRB) approval from the University of Nebraska-Lincoln for this additional study (Project IRB# 20140213343EP, 2/17/2014) under the auspices of the parent project, Efficacy of the Getting Ready Intervention at Supporting Parental Engagement and Positive Outcomes for Preschool Children at Educational Risk (NUgrant Project ID: 12606, Project IRB# 20120512606EP).

There were a number of ethical considerations to address for this study. First, some of the topics of the interview questions were potentially delicate in nature, such as
those inquiring about families’ daily lives and children’s challenging behaviors, or teachers’ perspectives of classroom functioning. Protecting the confidentiality of the participants’ responses was paramount. All participants were de-identified and assigned unique numeric identifiers during the parent project. The de-identified data was kept separate from the master list of identifier information. Numeric identifiers were used to designate participants’ outcome data, documents, and interviews. Secondly, information about harsh parenting techniques had the potential to come to light during parent interviews, and the researcher is a mandated reporter of child endangerment.

Both of these considerations were addressed in the development of the informed consent form (see Appendix D for parent, teacher, and EI coach versions of the form). The consent form ensured the participants that their responses would not be linked to their identities, but there is a disclaimer regarding the researcher’s mandate to report child endangerment to the proper authorities. The consent forms for parents, teachers, and EI coaches stated the purpose of the study, the procedures that would be used to collect data, and the potential benefits of the research. It acknowledged the possible risk that some questions might cause discomfort, and informed participants that they could decline to respond to any questions. The consent form stated the right of the participants to voluntarily withdraw from the study at any point in time, if they desired to do so.

Summary

Creswell and Plano Clark (2011) warn that “the very act of combining qualitative and quantitative approaches raises additional potential validity issues that extend well beyond the validity concerns that arise in the separate quantitative or qualitative methods procedures” (p. 239). This study has focused on ensuring design quality (matching
suitable approaches to the research questions, using rigorous procedures for each phase, and analyzing data appropriately) and demanding robust interpretations of results (looking for consistency in findings, checking inferences’ consistency with theory and current knowledge from the field, and reaching plausible conclusions) in an effort to ameliorate potential validity issues related to this mixed methods design (Teddlie & Tashakkori, 2009).
CHAPTER 4
RESULTS

Phase 1: Quantitative Results

Nineteen children met project criteria for participation in this phase of the study. Time 1 scores for the children on the parent and/or teacher reports of SSIS Problem Behaviors falling at or above the 75\textsuperscript{th} percentile indicated these participants were at significant risk of displaying chronic challenging behaviors. Scores from the social development domain of the Developmental Indicators for the Assessment of Learning (DIAL-4; Mardell & Goldenberg, 2011), collected during screening for the larger study, and Student Observation System (SOS; Reynolds & Kamphaus, 2004), reflecting classroom observations at Time 1, were considered to corroborate evidence of problem behaviors for these subjects. This ensured their selection to the study group was appropriate and indicative of children with challenging behaviors. Eighteen of the 19 children had two or more measures indicating risk of chronic challenging behaviors. In addition to all children having at least one score on the SSIS Problem Behaviors checklist (either parent or teacher version) falling at or above the 75\textsuperscript{th} percentile, these children met one or more of the following conditions: (a) both parent and teacher ratings on the SSIS Problem Behaviors checklists above the 50\textsuperscript{th} percentile, (b) a DIAL-4 social development domain score below the 25\textsuperscript{th} percentile, and/or (c) two or more problem behaviors observed during the 15-minute SOS classroom observation at Time 1. One child met the study criteria based on the sole consideration of an SSIS-Teacher’s Version Problem Behaviors score that fell at the 83\textsuperscript{rd} percentile.
**Relationships at Time 1.** Median scores and inter-quartile range scores for the child, teacher, and parent measures at Time 1, as well as the Spearman rank-order correlations of those measures to the SSIS-Teacher: Problem Behaviors scores ($Mdn = 117.00$, $IQR = 110.00$-$126.00$) appear in Table 5. Phase 1 results support the research hypotheses that children with higher levels of problem behaviors tend to have lower levels of social skills and poorer quality teacher-student relationships. There was a significant negative correlation between teachers’ reports of 19 children’s problem behaviors on the SSIS-Teacher: Problem Behaviors checklist and these children’s reported social skills ($r_s = -.750, p < .001$) and quality of student-teacher relationships ($r_s = -.789, p < .001$). Conversely, teachers’ reports of children’s problem behaviors had a significant and positive correlation with teachers’ reports of children’s difficulties with executive functioning ($r_s = .803, p < .001$).

For this same group of 19 children there was no significant rank order relationship found between teachers’ reports of children’s problem behaviors and teachers’ reports of the quality of parent-teacher relationships ($r_s = -.106, p = .665$), and other child measures for receptive vocabulary ($r_s = -.009, p = .972$), expressive vocabulary ($r_s = .347, p = .145$), or cognitive skills ($r_s = .213, p = .382$). While the researcher hypothesized that there would be no rank order relationship between children’s problem behaviors and cognitive skills as demonstrated by these results, a negative rank order relationship was hypothesized between children’s problem behaviors and parent-teacher relationship ratings as well as children’s receptive and expressive language skills; this hypothesis was not supported by these results.
Furthermore, there were no significant correlations found between the teachers’ reports of children’s problem behaviors and parents’ reports of children’s problem behaviors ($r_s = -.181, p = .471$), children’s social skills ($r_s = .203, p = .436$), quality of parent-teacher relationships ($r_s = .161, p = .511$), or parents’ involvement in children’s education ($r_s = -.029, p = .906$). These results do not support the research hypothesis that there would be a positive rank order relationship between teachers’ reports of children’s problem behaviors and parents’ reports of problem behaviors. Also not supported by these findings were hypotheses that suggested higher scores on the teachers’ reports of children’s problem behaviors would be related to lower scores on parents’ reports of children’s social skills, quality of parent-teacher relationships, or parents’ involvement in their children’s education.

**Change in child, parent, and teacher variables from Time 1 to Time 2.**

Another set of analyses provided an evaluation of change in the variables of interest after the children had been in preschool augmented by the Getting Ready intervention for one year, as well as the magnitude of such changes. Changes in these variables for a comparison group who did not receive the intervention were not evaluated in this study, thus precluding causal inferences regarding the effects of the Getting Ready intervention for these participants. These results do, however, describe changes in variables of interest for children with challenging behaviors, their parents, and teachers who experienced the Getting Ready intervention from the beginning to the end of Year 1 of this study. These results, as well as the median scores and inter-quartile range of scores at Time 1 and Time 2 for child, parent, and teacher measures, are found in Table 6.
**Child variables.** As hypothesized, a significant difference was noted between the distribution of children’s expressive language scores over the course of Year 1 (Time 1 to Time 2) for children with high levels of problem behaviors (based on Wilcoxon test, \( z = -2.135, p = .033 \)). The magnitude of the effect size for this difference is medium (\( r = .36 \)). Furthermore, there was no difference between the distribution of scores on the Bracken Test of Basic Concepts, a measure of children’s cognitive skills, from Time 1 and Time 2 for this sample of participants (Wilcoxon test, \( z = -1.896, p = .058 \)). Contrary to anticipated results, no significant difference was noted between the distribution of receptive vocabulary scores from Time 1 and Time 2 (Wilcoxon test, \( z = -.450, p = .652 \)).

With regard to parent-completed child measures, there was no significant difference between the distribution of scores from parents’ reports of children’s problem behaviors (Wilcoxon test, \( z = -1.525, p = .127 \)), nor from parents’ reports of children’s social skills (Wilcoxon test, \( z = -.094, p = .925 \)) from Time 1 and Time 2.

There were also no significant differences in the distributions of scores from teacher-completed reports of children’s problem behaviors (Wilcoxon test, \( z = -1.460, p = .144 \)), or children’s social skills (Wilcoxon test, \( z = -1.527, p = .127 \)) from the beginning to end of the school year. Nor were teachers’ reports of children’s difficulty with executive functioning (Wilcoxon test, \( z = -.699, p = .485 \)) significantly changed from Time 1 and Time 2. Results from these parent- and teacher-completed child measures did not support the research hypotheses that predicted improvements in these scores after one year of *Getting Ready* intervention.

**Parent and teacher variables.** Contrary to the research hypotheses, no significant changes in parent or teacher variables were discovered for this sample of participants. No
differences were found between the distribution of scores from parents’ reports of the quality of parent-teacher relationships (Wilcoxon test, $z = -.256$, $p = .798$), or parents’ reports of family involvement in their children’s education (Wilcoxon test, $z = -.879$, $p = .379$) from Time 1 and Time 2. Furthermore, there were no differences in the distribution of scores from teachers’ reports of parent-teacher relationships (Wilcoxon test, $z = -.719$, $p = .472$) or teachers’ reports of student-teacher relationships (Wilcoxon test, $z = -1.613$, $p = .107$).

**Summary of Phase 1.** The purpose of this phase of the study was to examine relationships between children’s challenging behaviors and other child, parent, and teacher variables as well as to discover changes in these variables from the beginning (Time 1) to the end (Time 2) of participants’ first year in the *Getting Ready* intervention. As expected, children’s challenging behaviors were found to be associated with teachers’ reports of poorer executive functioning and lack of social skills—representing a constellation of difficulties identified for this sample of children prior to participating in *Getting Ready*.

Findings from this phase of the study also suggest that higher levels of children’s challenging behaviors are related to lower teacher ratings of student-teacher relationships. These teacher reports did not, however, generalize to their reports of the quality of relationships they had with the parents of these children. No rank order relationships between children’s challenging behavior and parent-teacher relationships were found from either the teachers’ or the parents’ reports.

Finally, after one year of participation in preschool augmented by the *Getting Ready* intervention, children were found to have significantly improved in the
development of expressive language, but not in reports of challenging behaviors. Significant changes, in terms of either improvement or deterioration, were not noted by parents or teachers for the constellation of children’s difficulties with problem behaviors, social skills, and levels of executive functioning. Children’s challenging behaviors, therefore, persisted over their first year of participation in the Getting Ready intervention.

Phase 2: Qualitative Results

Four child participants from the group of 19 children studied in Phase 1 were selected, along with their parents, teachers and Early Intervention (EI) coaches for more in-depth study in Phase 2. The analysis of documents, audio tapes, and interviews for the four child participants provided validation that these children did indeed display challenging behaviors, although each presented with a unique profile. Three children displayed challenging behaviors within the school setting, and all four children did at home. One child tended to exhibit internalizing behaviors, while three tended toward externalizing behaviors, and these behavioral patterns were characteristic within both home and school environments. Their behaviors fell on a continuum from responsive to intervention to quite resistant to change. Teachers reported noticeable improvements in school behavior over the course of Year 1 for two of the three children who began the year showing challenging behaviors within the school setting. The third child continued with persistent challenging behaviors at school the entire school year. The fourth child had never demonstrated behaviors at school that challenged the teacher.

Qualitative evidence that these four children indeed displayed challenging behaviors in at least one setting—home or school—indicates that they were representative of the target group for this study. The definition of challenging behavior
and inclusion criteria for selecting the 19 participants for Phase 1 were appropriate, and a
deeper analysis of these four representative participants yielded important information
about these children’s, their parents’, and teachers’ experiences with the intervention.

Results from this analysis are portrayed in Table 7. Three themes emerged that
describe the process used by these children’s teams to address their individual and
collective needs around interacting with and teaching children with challenging
behaviors. Five themes emerged that convey how participants experienced the Getting
Ready intervention in terms of its social validity. These themes are explicated in the
following sections.

The Getting Ready intervention process. The foundational principles of the
Getting Ready model of intervention were clearly reflected in the data collected from
team members caring for and teaching the four children identified with challenging
behaviors. Three themes emerged demonstrating that (1) family-professional partnerships
were established and nurtured, (2) teams utilized collaborative planning strategies to
address prioritized concerns for these children, and (3) most parents gained competence
in interacting positively with their children over time.

Establishing and nurturing parent-teacher partnerships. Teachers utilized a
number of strategies in their efforts to build positive relationships with parents. Some of
these included noticing and affirming parents’ efforts with their children, asking open-
ended questions to engage parents in dialogue, and “trading ideas about what would and
wouldn’t work” in terms of strategies chosen to help children achieve desired outcomes
that had been mutually identified by the team. The Getting Ready process required
teachers to shift from what had been perhaps a more comfortable role as givers of
information about children to an egalitarian role with parents, as mentioned by this coach:
“I like the way it really did create a partnership between the parent and the teacher to solve problems.”

The notion that parents are key contributors to their children’s educational development is a foundational tenet of Getting Ready. There was evidence that the process used in the intervention strengthened parents’ engagement with teachers as partners in promoting children’s growth. One parent stated: “With this Getting Ready program, it’s shown me that I need to be more involved with their school,” and she went on to state that she was learning strategies she could use to promote the learning of all of her children. Parents appreciated being fully included as vital team members. One parent reported feeling “connected” to the teacher and coach on her child’s team. Another stated that she and the teacher had mutual respect for each other. When parents were encouraged and allowed to share their perspectives regarding their children’s strengths, developmental and behavioral needs, preferences, and interests, a powerful store of knowledge became available to teams for supporting families, designing strategies for addressing children’s needs, and planning for successful implementation of those strategies. One teacher shared:

I’ve come to know this mom a lot better. I know what she does, how she handles her son, and the way that she works with him at home. This mom has done everything she possibly can do with her son. And I wouldn’t have known that without going into the home and actually working with her.
Efforts to establish and nurture effective partnerships were not without their challenges. EI coaches and teachers reported some parents seemed introverted or hard to read, had difficulty verbalizing their thoughts about their children, or expressed negative views of their children. At times, valuable team meeting time was utilized to address family or adult concerns, such as food insecurity, job loss, or health issues that were more pressing to the parents at that time than the children’s educational needs. Teachers and EI coaches expressed frustration when this occurred, as it was not their mission, nor were they equipped to solve such issues. One coach reported: “We spent time processing the challenges that mom was undergoing with many, many issues. And so one of our primary challenges in the visits was…trying to get it focused on the child.” In addition, at times, parents and professionals disagreed on realistic expectations for a child, making consensus on target goals and/or strategies difficult.

**Utilizing the tools of collaborative planning.** When asked to describe a typical team meeting, nearly all parents, teachers, and EI coaches described regularly using one or more tools of collaborative planning as taught in the *Getting Ready* training. These included sharing specific information about children’s skills and/or behaviors, choosing one or more goals as a focus for intervention, brainstorming strategies for home and school in order to promote children’s attainment of goals, making a plan for working toward the goals until the next team meeting, and discussing how children’s progress toward their goals would be measured. Teachers and coaches spoke of using these tools as they moved through specific items on agendas used to structure team meetings. Early in the year, EI coaches primarily facilitated the team’s movement through each agenda as teachers followed along. By the end of the year, teachers spoke of and were observed
taking ownership of facilitating the collaborative planning process during team meetings. One teacher described how she prepared for such a team meeting, “Before I go out for a home visit, I usually write down [that] we’re going to talk about the goals. We’re going to talk about the progress, what’s worked, focusing our attention on the goals.”

Rather than describing typical meetings in terms of moving through an agenda of collaborative planning steps, parents portrayed collaboration as a more global process emphasizing aspects of the team meeting they found particularly meaningful. One mother shared, “We have the goals…and talk about that. Everyone pitches in ideas.” Another said this about a typical team meeting, “We sit down, it’s usually here [in the home]. We talk about the goals that were set for last time, and we go over what he’s graded at.” This parent’s reference to her child being graded referred to the system used to monitor his progress on the goal selected by the team. Not all parents, however, were able to so clearly articulate engaging in collaborative planning in their team meetings. When asked to describe a typical team meeting, one parent only recalled that she received information from school assessments of her child. Another parent reportedly valued developmental information she typically received at team meetings, “She’s [the teacher] very helpful with information. She gives me ideas to improve…like different activities I can do with [my child].” This parent did not, however, as some other parents did, report that she offered valuable information and ideas in a reciprocal manner to the EI coach and teacher with expertise as her child’s parent.

The Getting Ready collaborative planning process promoted team discussion regarding goals for growth in children’s communication, cognitive, or academic skills or positive social behaviors. One phenomenon that was observed in the qualitative data was
that some teams initially chose different goals for intervention in the home and school settings. By the middle of the first year of participation in Getting Ready, however, parents and teachers had converged upon the same goal for both settings. For one team, the first goal for the child in the home setting was to write his name while in the school setting, the goal was to easily transition to the next activity in the school routine. While both goals held value for the child and adult members of the team, having disparate goals did not tap into the power of bringing parent and teacher together to work on a singular goal using similar strategies. By mid-year, this team documented that the goal for the child in both home and school settings was to use words and make eye contact to ask for things. The team devised a set of strategies for use across environments that tapped child interests to create motivation and provide positive reinforcement for the desired behaviors. The team further defined how these strategies might look specifically at home and at school. At home, motivators such as the child’s favorite foods or getting to sit by mom at dinner were selected, while at school motivators included getting to help the teacher or getting to sit by his favorite paraprofessional at lunch.

Typically, after discussion of the children’s current levels of development, selection of prioritized goal(s) for home and school, and brainstorming of strategies for use in those settings, a portion of each team meeting was devoted to developing a specific plan for measuring the progress toward each goal and choosing specific home and school routines wherein the adults could prompt and the children could practice the desired skills/behaviors. The plan included procedures for collecting information about the effectiveness of the strategies. This element of collecting data from both parents and
teachers for the purpose of making decisions emerged as one of the most challenging aspects of the collaborative planning process.

Data collection challenges. Data-based decision-making has rich support in educational and behavioral literature (Bergan & Kratochwill, 1990; Fuchs, Deno, & Mirkin, 1984). The EI coaches in the present study guided teachers and parents to define goals in measurable terms and to collect baseline data prior to beginning the use of strategies. Coaches also assisted teachers and parents in setting up rubrics, rating scales, and charts in efforts to tailor data collection to their individual interests and needs. In general, teachers were more adept at data collection than were parents, as one would expect given the greater familiarity with and training in data collection that teachers experience as part of their professional development. Teachers tended to use the team-developed rating scales with regularity, and often brought additional data such as GOLD™ assessment ratings and work products to team meetings. Teachers and EI coaches expressed beliefs regarding the value of the data collected to inform the team’s decisions. One teacher said, “It’s nice to see we have all this data to give them [staff from the child’s future elementary school] to make it easier for his transition and hopefully easier for the kindergarten teacher next year.” A coach shared this observation regarding a teacher: “Collecting data [for the child] caused her [the teacher] to notice his difficulty with basic communication skills such as making eye contact and using words rather than gestures.” The coach reported this exchange for another teacher and parent: “She [the child’s mother] also had her data sheet with her and they [mother and teacher] both compared notes about what they’ve been seeing and came to a decision that they both contributed toward.” Data collection and interpretation, however, did not come naturally
to all teachers. One EI coach noted this about a teacher, “Implementing something that was...data-based and record-keeping just doesn’t flow naturally from her personality.” In this instance, the coach reported taking an active role in simplifying the design of the intervention strategies for the desired target behaviors as well as data-collection system for the teacher’s use.

For all of the parents interviewed for this project, collecting data regarding their children’s behavior was a new experience. One parent consistently used the rating scales developed at her team meetings over the course of the school year, and another parent used a chart system for several consecutive weeks. Collecting systematic, written data from most parents in a consistent fashion over the course of the year, however, proved to be difficult. Some parents reported they shared information about their children’s progress by showing the teacher actual work products, or verbally communicating their observations in team meetings.

Teachers and EI coaches often went to some lengths to devise user-friendly data collection systems in conjunction with parents, and it was frustrating and perplexing when these systems were not used consistently at home. In spite of these challenges, teachers became creative in efforts to gather important parental information regarding children’s progress toward their goals. One teacher began collecting data from the communication notebook that was going back and forth between school and home, noting the parent’s comments in the notebook as evidence of the child’s progress toward the goal or lack thereof. For a child who rode the bus to school, the teacher had the bus driver check in with the parent regarding the child’s progress when she dropped him off at
home. Another teacher prompted the parent to add her information to a rating scale, kept at school, when the parent dropped the child off in the morning.

Parents were forthcoming about the challenges they encountered in attempting to participate in data collection as shown in the following quotes: “I’m behind on charting, so it’s blank right now, which looks really bad.” “I told her [the teacher] kind of what I did, what worked, what didn’t work. She told us to keep doing what I’m doing.” “The coach is really good with working with me about it, because I don’t always have the time to sit down and fill out the reports and whatnot. So we go over it and she does her assessment, and then we call that good.” “It’s lost, I don’t have it” [when asked about the rating scale by the teacher]. Although parents did not often contribute data in written formats, the coaches stated that they believed parents to be reliable reporters of their children’s behaviors and skills, therefore, the most efficient way to gather these data was often by simply asking parents how their children were doing. One coach said, “I had more than one family where the capacity of this sort of ‘data collection’ was not there, but yet, they were observers and when we talked they could say what helped and what didn’t help, but it’s not the kind of data we scientific people think we would like.”

Positive parent-child interactions. Teachers were trained at the beginning of the Getting Ready project and encouraged by EI coaches to utilize a set of strategies designed to promote positive, development-instigating parent-child interactions. During team meetings and other occasions when parents were contacted, teachers used strategies to encourage parent engagement with their children throughout daily home routines and activities. Teachers used open-ended questions and/or supportive statements to encourage parents’ input regarding observations of their children’s development, preferences, and
responses to strategies. Parents and teachers together identified areas of concern for children’s development and prioritized goals they wanted to address. Parents offered their ideas for supportive measures they were willing to implement within the home setting for the goals set by the team, and some parents reported that teachers were able to offer suggestions for additional supports that the parents would not have considered: “I have nothing but good things to say about everybody and all their input is nice and the different ideas….They come up with creative ways to do things.” Teachers mentioned that opportunities to reflect with their EI coaches on their intentional use of these Getting Ready strategies with families was a valued feature of the intervention process.

When time allowed and the children were present at team meetings, parents were invited to engage in and complete a particular activity with their children so that positive parent-child interactions might be observed or prompted. Often the activities entailed a demonstration of the parent working with the child on the prioritized goal, for example, one teacher prompted a parent by saying, “Show us how you get her to write her name.” EI coaches documented evidence of parent-child interaction behaviors such as:

- The parent set the stage for interaction and support by having the child on her lap, giving hand-over-hand support to write, maintaining her attention to the task, and establishing reciprocal roles- the child asked for help, mom helped, then mom had the child copy her.

Teachers were intentional in their efforts to affirm parents’ positive interactions with children when these were observed during team meetings or reported by parents. One teacher told a mother that she was doing a good job, and another told the parent that she
had great ideas. A third teacher said that the child was showing academic gains due to the parent working with him.

There was evidence that the Getting Ready strategies utilized to strengthen positive parent-child interactions paid off in several important ways for all four of the families studied. First, some parents focused more attention on nurturing and positively reinforcing their children. Parents spoke of giving their children more one-on-one attention and planning enjoyable free-time activities to do together such as going to the park, playing games, or watching a movie. Parents said this about their interactions with the children: “I play with him and talk with him.” “When he goes to bed at night… I read books to him.” A coach shared this about one child’s mother: “She wasn’t afraid to get down on the floor with her.” In addition, some parents agreed to use social reinforcement, such as praise or high fives, for children following directions and displaying other positive behaviors.

Secondly, some parents gained skills in setting appropriate limits for their children’s behavior. One mother stated: “… A lot of it was me realizing I need to be the parent. He’s got to know if I say it, then I need to follow through with what I say, and that’s what’s going to happen.” The EI coach corroborated this parent’s report of her change in approach to setting limits for her child. Early in the school year, the coach observed the child disregarding his mother who had told him “no,” but at a home visit later in the school year, the coach remarked that the parent “… followed through to make sure that she helped him do that [comply with her direction] if he didn’t do it [on his own].” The coach reported that as a direct result of the parent’s more effective follow-
through in setting limits, the child’s behavior “changed at home… and during our home visits we saw that.”

Finally, some parents reportedly gained a better understanding of how their children learn best. One parent shared that participating in the Getting Ready project was valuable since her son was proving to be a different sort of learner than her other children. She said, “This was more of an opportunity to learn because [my son] didn’t want to learn. He didn’t want me to help him… So… this… shows me or teaches me what I need to do differently.” Another mother shared: “I think it helps with me understanding my child more.”

Despite these improvements, some teachers and EI coaches felt they needed more contacts than were scheduled with families to provide an adequate amount of support for change in the quality of parent-child interactions and children’s behaviors. Children rode the bus to school at some of the sites, precluding direct contact between teachers and parents at pick-up and drop-off times. Thus, some teams had limited opportunities to directly observe and encourage positive parent-child interactions, or affirm strategies used to prevent challenging behaviors. Some teachers and coaches only saw parents during five to six home visits or parent-teacher conferences throughout the year. Furthermore, some families demonstrated patterns of highly negative parent-child interactions at the beginning of the intervention. Teachers and coaches stated that, in these sorts of situations, they felt more frequent home visits would have provided additional opportunities to establish a context for parent-child interaction, observe what happened within that context, and offer more feedback or suggestions to parents to improve the interactions. A coach said:
One of the things that we were hoping to impact was parent-child interaction. But I didn’t feel like…we had enough opportunities. Each of the five or six meetings that we had with the parent and the teacher were to include a parent-child activity, but if you think about six times over nine months, to really make an impact on what the parent and child are doing together by being able to observe and coach them or facilitate it…. that wasn’t, in particular, with this child, enough.

**Synopsis.** Four teams of parents, teachers, and EI coaches of children with challenging behaviors demonstrated that key principles of the *Getting Ready* intervention can be successfully played out for children with high behavioral needs. Team members established and nurtured parent-professional partnerships that engaged parents in collaborative planning for addressing team members’ priority concerns for children and formed a foundation for professionals’ efforts to increase positive parent-child interactions. Insufficient contacts between parents and teachers over the year limited opportunities to observe, coach, and affirm parent-child interactions that could have minimized the frequency, intensity, or duration of challenging behaviors at home.

**The Getting Ready intervention experiences.** The social validity of the intervention was explored and five themes emerged: (1) the value of academic and behavioral goals; (2) the chronic nature of children’s challenging behaviors; (3) family functioning and relationships during the intervention period; (4) classroom functioning and teacher relationships during the intervention period; and (5) growth of children, parents, and teachers.
**The value of academic and behavioral goals.** During the course of the first year of participation in Getting Ready, all of the teams identified academic goals for the children at some point during the year. Academic goals included writing one’s name, recognizing and identifying letters, recognizing and identifying numbers, recognizing and naming shapes, writing numbers, naming colors, and associating sounds with letters. Three of the four teams also selected goals for children related to improving home and/or classroom behavior. These behaviors included using words to share and take turns, accepting “no” from adults, following adult directions, following a bedtime routine, completing household chores, sitting still and focusing for five minutes, participating in classroom activities, transitioning from one routine to another, interacting with peers, and increasing attention span.

While most participants selected both behavioral and academic goals for the children over the course of the year, when asked to identify which of these goals they felt was most important, participants overwhelmingly reported that behavioral goals targeted these children’s highest needs. In the interviews, participants described the following behavioral goals as priorities: cooperating with home routines, reducing tantrums, “trying to get her to listen,” “accepting what the teacher wants him to do,” “controlling his emotions,” “learning to be self-sufficient and do stuff on his own.”

These teams eschewed the notion, however, that behavioral issues needed to be resolved prior to addressing academic needs—both academic and behavioral competencies were thought to be crucial and found to be interrelated. For one child, an increase in academic competence revealed a need to improve focus and attention to task. For a child with tendencies to withdraw, intense behavioral support using visuals and
positive reinforcement resulted in improved classroom participation, revealing strengths in his communication and social sensitivity and providing increased opportunities to teach other specific academic skills. As his parent and teacher supported his academic learning they encountered some underlying challenges with regard to retention of academic information, such as letter names, and visual-motor competencies needed for writing skills (e.g. he was observed forming the first letter of his name by drawing three separate lines rather than one smooth stroke). For two children, challenging behaviors proved to be persistent, one at home and one at school. Teams for these children, however, chose to target academic needs as well, in efforts to give children a sense of control and competency as transitions to kindergarten approached. The coach for one of these children shared this: “I think in terms of school, she is really feeling proud of herself as she’s learning to write her name. And it’s become a very positive thing between her and her teacher, which has also been good for her.”

**The chronic nature of challenging behaviors.** While most participants reported that the children’s positive behaviors were priority goals, the chronicity of children’s problem behaviors reflected the challenge parents and teachers had in successfully implementing selected intervention strategies to ameliorate these behaviors at home and/or school. After more than a year of involvement in *Getting Ready*, despite some improvements, some participants continued to report regularly dealing with challenging behaviors, in particular, noncompliance, defiance, disruptions within community settings such as the park or Sunday School, and physical aggression. One teacher described a child as rarely displaying noncompliant behavior at school (once or twice a semester), but she reported this about the child’s behavior within the home setting: “I think mom’s
having more issues at home that are, for mom, a lot more concerning. She just flat out
won’t do anything for mom, often.” For another child, behavior at home was much
improved, but was still difficult at school. The teacher shared that her staff had observed
that this child did not seem to think classroom rules applied to him:

That’s kind of what we see, he just wants to run, he wants to yell, he wants
to hit, and he understands… he’s so incredibly smart, he understands what
we want to do but his behavior gets in his way of his regular day of
finishing out a request.

Participants described efforts to implement a number of evidence-based strategies
selected to achieve goals related to positive child behaviors. The strategies included
adhering to a routine, providing positive reinforcement for desired behaviors (e.g. social
reinforcement, stickers on a chart), adding visual supports (e.g. classroom schedule,
classroom or home rules, If… then, social stories, cue cards for problem solving),
planned ignoring (e.g. going into an adjoining room when child engaged in temper
tantrums), providing warnings of transitions, and engaging the child in triage several
times throughout the day (e.g. an adult runs through a series of questions with the child
that are designed to check the child’s emotional status and remind the child of behavioral
expectations). EI coaches played an integral role on the team by assisting teachers and
families in the design and use of these strategies through sharing information about
evidence-based practices, creating materials, and observing and providing feedback
regarding strategy implementation.

Participants reported some success with these strategies. One teacher made these
comments about the two child participants from her classroom: “He does better with
warnings and we have a pretty set routine here. He’s one of those kids who does better when he knows what’s coming next.” “He is a very big visual learner and I think without it, he would be lost. He’s got great communication skills for his age, but it seems like if he doesn’t have those pictures to learn he struggles quite a bit in the classroom.” However, participants also reported that, for some children, the strategies worked intermittently or lost effectiveness over time. One teacher said, “You just had to have a variety of interventions to keep her attention.” Another teacher had these observations to share about a child whose response to interventions was particularly inconsistent: “Most days it works. Some days it’s harder where we have to physically remove him from a center because he just won’t accept it.” “He gets very excited about using new things, and we try to make it very positive, but everything we give him or that we have him do really just fizzes out and it’s not new anymore and then it no longer works.” Thus, these participants described the chronic nature of some children’s challenging behaviors. While incremental, functional improvements were seen for all four children in home and/or school settings, change to more positive behaviors often occurred slowly, required systematic intervention over time, and was sometimes marked by children regressing to displaying the challenging behaviors they used in the past.

*Family functioning and relationships.* Given the chronic nature of the children’s challenging behaviors and the lack of change noted in Phase 1 for family involvement in their children’s education scores, this researcher was particularly interested in the influences of these children’s challenging behaviors upon their families’ functioning. Family functions may be defined as the tasks that family members perform to meet their members’ needs for daily care, financial support, affection, socialization, education,
recreation, and spirituality (Turnbull, Turnbull, Erwin, Soodak, & Shogren, 2011). In addition, a family is not merely a collection of individuals, rather a family operates as a whole system made up of persons with interdependent characteristics, interactions, and relationships. This phase of the study led to a better understanding of the impacts the children’s challenging behaviors had on their families’ functioning and the children’s relationships with other family members, and how participation in Getting Ready may have ameliorated these impacts.

Daily care. All families spoke of having established routines for daily care such as cleaning, shopping, cooking, and childcare. Several families reported improvements in children’s bedtime routines after targeting this as a Getting Ready goal, although putting children to bed and getting them up in the morning were frequently reported as the “most challenging time of day” for these children. For one parent, it was the afternoons when she struggled with keeping her child busy after school. Some families reported they struggled with getting their children to participate in cleaning up the home (e.g., children resisting picking up their toys.) There were some indicators in the data reviewed for Phase 2 of chaotic family environments that may or may not have been related to the children’s challenging behaviors. There were references to extremely cluttered homes, missed team appointments, inconsistent daily schedules, and overwhelming demands of the children and siblings on parents’ time and energy.

Children’s behavioral goals were typically addressed across families’ daily routines. For example, parents used visuals when giving directions or used social reinforcement for compliance with requests throughout the day. Three families had support for childcare, two from grandparents and one from a daycare. None of the
families reported children’s challenging behaviors interfering with these arrangements. Families reported, however, some issues with taking their children with challenging behaviors out in the community. One child had difficulty at Sunday School, although this was a place he “loved” to go. Another parent refused to take her child out to stores or the park, if the child was “having a bad day.”

**Affection.** Despite the reports of children’s ongoing challenging behaviors, all parents were able to identify the ways they demonstrated affection with their children as well as the ways the children expressed affection with them. Parents reported showing affection by doing special things for their children, spending time in activities with them, hugging and kissing them, and/or telling them “I love you.” Parents said children showed affection by drawing pictures and making things for their parents, giving them hugs, and/or saying “I love you.”

**Education.** While no change in scores for the Family Involvement Questionnaire (Fantuzzo et al., 2000) were found in Phase 1, most families studied in Phase 2 reported incorporating time into their daily schedules for addressing academic goals, for example, working with the child while her siblings were doing homework or setting aside ten minutes in the evening to play a game. Parents spoke of these activities that fostered their children’s learning: “She would sit down I’d work with her and taught her [the letters in her name]. I would make a game of it.” “Usually after supper, we’ll sit down and …we’ll play a game—something that’s learning.” “We got him Explore and Learn. So he can go through there and he can pick out what he wants me to read. I think that reading to him is how he’s going to start getting his letters down.” Parents gave credit to teachers and coaches for helping them expand their repertoires of educational activities to do with
their children as well (e.g., practicing writing on a whiteboard, informing parents of educational websites).

Furthermore, families expressed optimism about the educational futures of their children with challenging behaviors. The parents had goals for their children to be successful in school. One parent defined her goal as her child being able to read and to graduate from high school. This parent acknowledged her role in supporting her children’s future success:

I do everything in my power to make sure he’s going to make it somewhere. And that won’t ever stop. I don’t worry about my kids’ future because I know that they’re going to have the best one possible…I know I’m giving them the best.

Another parent spoke of her child’s potential saying, “I know he’s so smart and he will do amazing things.” This parent expressed her excitement for her child to start kindergarten.

*Financial and health stressors.* Since family financial status was one criterion for enrollment in the children’s preschool programs, it is not surprising that the four families all felt the impact of financial stress to some degree on family functioning. Families did not, however, claim that financial stressors were ascribed to or exacerbated by the needs of their children with challenging behaviors. Parents spoke of concerns regarding paying monthly bills, food insecurities, and/or unreliable transportation, and some of the parents experienced job loss or a need to work irregular hours. While these topics came up during team meetings and community resources were discussed, the issues tended to be persistent in nature and lasted throughout the course of this year of participation in
Getting Ready. In addition, some families were dealing with significant health issues, including parent physical and mental health, health of the child with challenging behaviors, and/or health of other children in the family.

For some families, the above-mentioned financial and/or health issues were related to disruptions in children’s regular school attendance, missed or re-scheduled team meetings, and parents’ reports regarding their abilities to use team-designed strategies with the children in the Getting Ready project and collect written data regarding working with their children.

When parents were asked about their worries, financial stressors frequently topped the list. In addition, one parent mentioned a fear of unsafe housing and potential fires. Another parent mentioned a worry about her kids being ‘OK.’ She said, “Sometimes when the kids will come home, one of them will say ‘I had a bad day,’ and I want to make sure that they’re OK.” Just one parent expressed worry about her child’s challenging behavior: “I’m just afraid he’ll let his behavior get in the way. And I just hope he can control his behavior, the hitting. It’s not as bad, but he still does it on occasion.” This finding highlights the low priority that children’s challenging behaviors may have for many of these families beset by multiple risk factors related to poverty.

Family relationships. For the parents who were primary caregivers, other family members were sources of either support or tension in caring for the children with challenging behaviors. Grandparents were identified as sources of financial and/or caregiving support. For one family, the child’s older siblings offered support by teaching academic skills and modeling doing homework. In this family, the child with challenging behaviors was highly motivated to do homework as well, so the teacher provided
worksheets and the parent assisted the child with doing these at home. On the other hand, two parents reported that their children had little or no contact with their non-custodial parents, thus these fathers were described as sources of tension rather than support for raising these two children with challenging behaviors.

**Classroom functioning and teacher relationships.** Having children with chronic challenging behaviors in a classroom was predicted to be a negative influence on how the classroom operated and the quality of the teacher relationships with those children and their parents. The results of Phase 2 of the present study provided a nuanced understanding of these influences, as well as shed light on the lack of change in student-teacher relationships over the course of one year of *Getting Ready* intervention that was revealed in Phase 1 analysis.

**Classroom functioning.** One teacher reported no significant behavioral issues with her target child at school, although she had observed a lack of compliance with parental requests during home visits. As this parent did not raise the child’s behavior as a priority for change, this particular team exclusively selected academic goals for the child during Year 1 of the project. The other three children’s behaviors did impact their classrooms, as well as their home settings, in significant ways during their first year in preschool, and their teams chose to address behavioral goals for both settings as a part of the *Getting Ready* intervention process.

During the first year of participation in *Getting Ready*, teachers characterized three children’s behaviors as inconsistent, with great variability from day to day or even within the same day. One teacher said, “There is no ‘typical’ day.” Often teachers could tell if a day would go smoothly or not by how easily the child entered the classroom at
the beginning of the day. They described the children as having particular “moods” that set the tone for things to follow. A teacher said:

At the beginning of the school year last year, you could pretty much tell how your day was going to go by how she came off the bus. She’d come bouncing off the bus, she’d be happy as a lark. Or she might not come down off the bus, and she’d be on the bus throwing her fit.

The volatility of the children’s moods and behavior was related to teachers’ characterizations of having “good days” and “bad days” in the classroom environment.

The smoothness and success of classroom routines were impacted by the children with challenging behaviors. The children generally had the most difficulty with teacher-led classroom activities, such as those completed during small group and large group times, and transitions between routines. A teacher shared that a child had difficulty “doing any activities; really, he wants to play. When it comes to specified activities…following directions, cutting skills, tracing skills, writing his letters, we don’t really know where he’s at because he refuses to do all of it.” Another child was described this way: “I don’t think he can physically sit down for more than five minutes; his anxiety, his impulses are not to where they should be for his age…He has a hard time with it.” The same child had more success playing alone, but great difficulty interacting with two or more peers in a group. His teacher described his peer interactions in this way: “He gets overwhelmed, either they don’t build the way that he wants to, they don’t play the way that he wants to. He will start throwing toys…he will get in their faces and scream real loud which scares them.” The identified children generally did better with the free-play structure of centers/work-time and outdoor time. When children were
noncompliant with expected activities and transitions, adults spent a great deal of time and energy encouraging the children to participate in the activity or move to the next one. At times, physical assistance was required and one teacher reported other children in the classroom imitated the behavior of the identified child who was throwing himself on the ground and rolling around: “My younger kids have started doing it as well because they see him do it.”

Efforts to bring resources to teachers of children with challenging behaviors can, at times, have unintended consequences. In addition to the EI coaches provided by the Getting Ready project, there were school and community consultants offering suggestions to some of the teachers for addressing the concerning classroom behaviors. Furthermore, one family had sought assistance from an independent mental health professional for an evaluation of their child. There was not, however, any sort of mechanism to coordinate these efforts, leaving teachers in positions of attempting to implement many strategies or picking and choosing which ones to utilize. One coach described this situation as requiring the teacher to be a “gate keeper,” trying to manage the various influences herself, as well as prevent the parent from being overwhelmed. The coach said,

> It was frustrating for me to see that, and I know it was for her [the teacher], too, because she expressed it. The teacher was trying to manage all these different strategies without a lot of follow-up or someone to help her.

For this team, the coach took on the role of supporting the teacher as she selected the behavioral strategies she wanted to implement in her classroom from the array presented
to her. The coach subsequently provided help to the teacher for effective implementation of chosen strategies.

Given these efforts, two children made substantial progress within the classroom setting, according to teachers’ descriptions, with many fewer instances of concerning behavior occurring after the first year of intervention. One child continued to display significant levels of challenging behaviors in the classroom in spite of the use of numerous strategies to support more positive behavior. The teacher reported that he continued to refuse to participate in center and small group times, hit teachers, and hurt himself by throwing himself on the ground and hitting his head on the floor or wall. The fourth child continued to display acceptable classroom behavior all year.

*Teacher relationships.* The literature suggests children’s challenging behaviors often impact their relationships with teachers as well as the teachers’ relationships with the parents of these children (Arnold et al., 1998; Dunst & Dempsey, 2007; Keogh & Burstein, 1988). The *Getting Ready* model of intervention, however, had the potential to ameliorate negative effects of children’s challenging behaviors on these relationships by fostering positive partnerships between teachers and family members and promoting effective communication, mutual respect, and shared strategies for addressing common goals. Results from Phase 1 of the study indicated that children’s challenging behaviors were associated with poorer quality teacher-child relationships at the beginning of the school year, although no such association with poorer quality parent-teacher relationships was found. In addition, teachers’ scores on the Student-Teacher Relationship Scales did not change significantly from the beginning to the end of the school year. These findings were explored further in Phase 2.
Teachers revealed both positive and negative perspectives about the children and their families. While teachers always spoke of children calmly and in a matter-of-fact fashion, occasionally a phrase used hinted at a more negative view: “[The child] is refusing to do anything.” “We’re just running out of ways to help him throughout the day. It’s just like, ‘What do we do now?’” “Will this take the hostility out of [the child]?”

In spite of the challenges these children raised in classrooms, however, there were many indicators that teachers had warm, supportive relationships with the children, and that children found the teachers to be approachable and sources of assistance. One teacher joined a parent and child in baking cookies during a team meeting, another invited the child to share her portfolio of school work with her mother. Some of the many examples of statements from teachers indicating their positive perspectives of these children were: “[The child] likes to engage the adults as much as the kids sometimes. She’ll ask to be read to a lot or say ‘Teacher, come and do this…”” “He’s so smart.” “I think her attention span has increased… and she’s more patient.” “At the beginning of the year, when he came back he…wasn’t holding on to my leg and sticking with a certain teacher…he kind of just blended in.” “She progressed quickly.” “She is calmer and able to do what she’s asked to do.”

Similarly, while there were indicators of the strengthening of parent-teacher partnerships over the course of the year, there were also signs of strain upon these relationships. On one hand, teachers reported placing more value on parent insights and priorities. One teacher said, “I ask them, ‘What’s the most important to you? What do you do at home?’ which I never was thinking to ask before.” Teachers were cognizant of the need to use open-ended questions to invite parents’ input and affirmations to reinforce
parents’ efforts with their children. One coach noticed the teacher’s use of the *Getting Ready* strategies: “The open communication and affirmation strategies were particularly useful for this parent.”

There were other examples, however, of teachers failing to follow parents’ leads in conversations, discounting parents’ ideas, or monopolizing meeting times with large amounts of assessment data and school-based information. During one team meeting, a parent mentioned that her child was “easily distractible.” This would seem like an important direction to take the conversation as a parent observation of one aspect of her child’s behavior that might interfere with the child’s ability to learn, but while the comment was acknowledged, the teacher quickly moved on to the handout she wanted to give the parent. On several occasions, teachers’ communication styles tended to be directive: “This is what I’d like you to do.” “I would like [the child] to recognize a few letters, count to 10, identify numbers, identify shapes and colors.”

While teachers were always professional and respectful in their demeanor during meetings with families, they sometimes privately expressed frustration regarding particular family characteristics. One teacher shared this difficulty: “I think the hardest part of working with mom is she has a lot going on in her life also, and so, it made it a challenge to keep it focused on (the child).” The teacher added that after these team meetings: “You usually left exhausted.” Another questioned a parent’s level of effort with the child. The teacher said her staff described the parent as lazy: “[The child] goes home and they turn on the TV.” These comments seemed to represent teachers’ wishes that families would do more for their children with challenging behaviors. While
teachers, at times, expressed feeling unsuccessful in their efforts to promote change in parent-child interactions, one coach made this observation:

I think the information and the process of trying to make a plan with parents… trying, even when it doesn’t feel successful, I have a feeling that there’s something about sticking with the attempt that has a benefit to parents, and teachers, and coaches.

**Growth of children, parents, and teachers.** As participants reflected back over their first year of engaging in the *Getting Ready* intervention, they reported several areas of growth for the children and themselves, in spite of the children’s persistent challenging behaviors.

**Growth of children.** All children were described as making progress with social-emotional/behavioral and academic development to some degree, thus improving their readiness for formal schooling. Participants used such descriptors as: “calmer, more mellow,” “her attention span has increased,” “more patient,” “he played with other kids,” “he could communicate a lot better,” “he can stay in small group,” “his ‘upset time’ is shorter,” “she’s gained a lot of confidence,” and “he can physically stop and consider his choices.” They described academic progress using these terms: “learning a lot more letters,” “he can recognize his name,” “she’ll write her name, without even looking at anything,” and “names four shapes.” A teacher described one child as ready to learn to read and count double-digit numbers, while a parent had this to say about her child:

She’s developed more. She’s just very eager about a lot of things. She wants to read more, she wants to do all kinds of things. She can’t wait to
get to preschool. It’s just exciting knowing that she’s developed so much
in the last year and a half. It’s just a good feeling.

In addition, participants verified the growth of language skills for some of the
children. One child’s dramatic improvement was described this way by his teacher:
“When he came back after the summer, he was a completely different person. He played
with other kids. He did wonderful[ly] language-wise as well, he could communicate a lot
better.” This child’s mother shared that she had been encouraged by her team to promote
her child’s interactions with others, a competency she had focused on in the summer by
taking him to the park and having children come to her home to play. This child’s
reported improvement in expressive language was accompanied by enhanced social
interactions across home and school settings.

Parents, teachers, and/or coaches of all four children, however, recognized
that though the children had made some functional improvements, they continued
to lag behind their peers in some area of development, including social-emotional,
behavioral, and/or academic skills. A teacher described the uneven development
of the target child in her class in this manner:

[His mom] does a wonderful job trying to get him to excel in his academic
[skills], and he’s way over where I even think a kindergartner should be.
But socially, he’s low. And he can’t function in a classroom. And so I’ve
been really working with the social-emotional part in the classroom.

Additionally, parents and teachers came to recognize that in the face of persistent
challenging behaviors, some children would need on-going support for positive behavior.
A coach shared this teacher’s experience with her target child:
The teacher came to the realization…that he needs some sort of strategy all the time. So…last year, I don’t think we realized how pervasive his behaviors were. We put the visuals in place. We put the consequences in place, and by the end of the year, he was doing pretty well, in fact, she had withdrawn the visuals. But then he came back in the fall, and we kind of had to start over again.

_Growth of parents._ Parents reported growing in their sensitivity to their children’s needs for structure at home, attention, positive reinforcement, and socialization opportunities. During interviews, parents made these comments regarding changes they had made: “Even on the weekends, [we] just try to keep routine, otherwise, you get him out of routine and it throws his day off.” “We have snuggle time before bed.” and “I’d take them to the park so they could play [with other children]. Just…you’ve got to go play.” EI coaches and teachers reported observing parents acting more intentionally in supporting the learning of their children, for example, buying children educational books and toys, assisting children with academic tasks at home, and regularly reading to children.

Parents’ abilities to interact with their children in warm, sensitive, and development-instigating ways, however, fell on a continuum. While some parents improved these abilities in fairly substantial ways during their engagement in the _Getting Ready_ intervention, professionals remained concerned about others. A coach expressed this:

It is very hard to know what growth there would have been in parent efforts without _Getting Ready_, but I don’t feel extremely confident about
the parent’s growth in effort[s] to teach, pay attention to, positively reinforce, and set limits for [her] child using age-appropriate, contextually-appropriate guidelines.

_Growth of teachers._ Over the course of the year, teachers became adept at utilizing strategies to strengthen parent-teacher partnerships. One EI coach said:

I think they’ve [the teacher and parent] figured each other out. And it seems like the level of support, meaning how often the parent contacts are and the communication that’s going on in between seems to meet their needs at a level that works for this teacher, child, and parent.

One teacher spoke of generalizing these partnership-building skills for use with all of her children’s families, not just those participating in _Getting Ready_. She said she valued “having the parents be involved in setting the goals and getting their opinions more…getting their input. I’ve carried that over to some other kids in general.” Teachers gained a deeper understanding of children’s home environments and family challenges. A coach shared this observation: “The teacher had very specific ideas about what was happening at school, but it was new to her to think about what might be happening at home and what might the influences one on the other be.” Some teachers gained more positive perspectives of parents through the _Getting Ready_ process. One teacher said: “[This parent] has done everything that she possibly can do with her child. And I wouldn’t have known that without going into the home and actually working with her.

All teachers came to assume roles as facilitators of the collaborative planning process to some degree during the year, and some were actively leading team meetings after just a few months of participating in the project. Some teachers became more reliant
on data as a means of sharing children’s progress with parents. An EI coach shared this about one of the teachers: “She’s really taken into the data collection. She’s always had hers [data reporting sheets], and they’ve been pretty accurate from what I’ve observed in the classroom.” Another teacher preferred to collect and share work samples to show a child’s academic progress: “I’ve got a whole bunch of examples…a month ago, this is how it [the child’s writing] looked, but look at how it looks this month.”

**Synopsis.** Team participants valued both academic and behavioral goals for children with challenging behaviors as both sorts of competencies were perceived as crucial for children’s success. When asked what targeted goal had been most important for the children, however, all participants responded that behavioral goals were critical. For children with challenging behaviors, these participants perceived that social/emotional and behavioral competencies were pivotal skills for children’s future success in and out of school. Behavioral problems proved to be chronic and not easily resolved across all environments for most children, although all demonstrated functional improvement in at least one environment. Some aspects of family functioning and relationships were impacted in on-going ways by children’s challenging behaviors, but negative influences in family functions of providing daily care, meeting educational needs, and showing affection appeared to be mitigated by families’ participation in the Getting Ready intervention. Similarly, classroom functioning and teachers’ descriptors of their relationships with children and parents were influenced to varying degrees by the children with challenging behaviors and by teachers’ participation in Getting Ready. Participants expressed perceptions that children, parents, and teachers changed in important, although variable, ways over the course of their participation in the Getting
**Summary of Phase 2**

One aim of this phase was to describe the process used by four teams to address both individual and collective needs regarding living and working with children with challenging behaviors. Three themes emerged in this regard. There was some evidence that family-professional partnerships were established and nurtured, that the teams used the tools of collaborative planning to address priority concerns, and that most parents gained competence in interacting in positive, development-instigating ways with their children. A second aim of Phase 2 was to explore the lived experiences of four children and their parents, teachers, and EI coaches in an effort to gauge the social validity of the *Getting Ready* intervention for this group of representative participants. Five themes were highlighted. The participants valued both academic and behavioral goals for the children, but the chronic nature of the children’s challenging behaviors prompted participants to claim that behavioral goals were most crucial for these children. Themes related to family and classroom functioning emerged, and both positive and negative perspectives of the children’s impacts on these were described. Finally, areas of growth and continued issues for children with challenging behaviors, their parents, and teachers were revealed.
CHAPTER 5
DISCUSSION

The purpose of this mixed methods study was to examine the application of the Getting Ready intervention for a subgroup of young children with significant challenging behaviors. The participants were enrolled in preschool programs serving families and children with risk factors related to poverty. In addition, children selected for the current study presented high levels of problem behaviors in home and/or school settings. Thus, these children faced multiple disadvantages in developing the necessary skills that would prepare them for school success.

Results from Phase 1 analyses informed efforts in Phase 2 of the study; the focus of interview questions and artifact reviews was specifically directed at gathering information that could further explain Phase 1 results as well as address targeted research questions. Subsequent integration and synthesis of the quantitative and qualitative results yielded four findings that expand our understanding of the processes utilized in the Getting Ready intervention with a group of children with challenging behaviors, their parents, and teachers, as well as preliminary outcomes related to their participation in the intervention for one year. See Table 8 for a summary of evidence for these findings across the phases as well as representative quotes from the study participants for each. The four findings will be discussed in this chapter, along with implications for early identification of young children with challenging behaviors, types and dosage of intervention recommended, training topics for teachers working with this population of children and their families, and future research directions. Finally, the chapter will conclude with a discussion of limitations of the study.
Summary of Phase 3: Findings and Implications Resulting from Mixing of Methods

Constellation of difficulties—challenging behaviors, poor executive functioning, and weak social skills. Young children typically develop competencies during their preschool years in planning, decision-making, inhibitory self-control, flexibility, and other aspects of executive functioning that help them regulate their emotions, moderate negative behaviors, and engage in social problem solving (Obradović et al., 2012). The current study uncovered a constellation of difficulties related to the children’s acquisition of these sorts of competencies for a group of 19 preschool children prior to beginning participation in Getting Ready. In Phase 1, teachers’ reports of children’s problem behaviors at Time 1 were significantly and positively correlated to children’s difficulties with executive functioning while significantly and negatively correlated to teachers’ reports of children’s social skills.

Phase 2 qualitative data provided concrete descriptions of the inter-related nature of these difficulties in home and school environments. Parents and teachers reported that the four selected children with challenging behaviors demonstrated difficulties with components of executive functioning such as inhibitory self-control, self-regulation, working memory, and cognitive shift. These difficulties manifested themselves across home and classroom environments in children’s behaviors such as impulsivity, distractibility, lack of emotional control, poor working memory, and resistance to transitions. Poor executive functioning seemed related to social problems with peers that were demonstrated by these children, such as yelling at peers, snatching toys from peers, difficulties working with small groups of peers, poor turn-taking skills, and not following peers’ leads in play.
The children’s constellation of difficulties, that included challenging behaviors, was associated with reported disruptions of some aspects of family and/or classroom functioning, many of which revolved around children’s resistance to adult guidance for the structure of routines and activities. Parents and teachers frequently reported encountering resistance when asking the children to cooperate with routines (e.g. get ready for and go to bed, come to the table for small group learning activities), and follow family or classroom rules. These repeated requests or directives were often flashpoints for children’s challenging behaviors. Displays of challenging behaviors were, in turn, related to parents’ reluctance to take children to community settings, thus isolating families from potentially rich learning environments for their children. In addition, teachers reported that the children who resisted participation had fewer opportunities to learn and practice new skills in small and large groups than their typical peers.

Understanding this constellation of difficulties does, however, point to a possible strategy for screening and early identification of children at high risk of displaying challenging behaviors. Intensive interventions for such children often utilize a great deal of resources, therefore, it would be desirable to accurately identify children most in need of these supports. The children selected for this study fell at or above the 75th percentile on either the teacher or parent version of the Problem Behaviors scale of the SSIS-R, and evidence from Phase 2 suggests this process reliably identified children with high levels of challenging behaviors, and related problems with executive functioning and weaker social skills, within a few weeks of enrollment in their preschool programs. This short (30-item), inexpensive checklist could be used in programs as an efficient screening tool.
for behavioral competencies, with more in-depth evaluation for behavioral needs and potential interventions reserved for those children at or above the 75th percentile.

The constellation of difficulties for the children with challenging behaviors also highlights the type of intervention targets and strategies that may better address their needs. In light of the cascading effects executive functioning has on the display of functional behavior and social skills, teams may need to consider choosing goals and designing strategies specifically for the improvement of children’s executive functioning. These competencies for self-regulation, focused attention, and self-management can constitute positive replacement behaviors that promote school success and are desirable for inclusion in behavioral interventions. There are a number of approaches supported in the literature. Curricula, such as Tools of the Mind (ToM; Diamond, Barnett, Thomas, & Munro, 2007) and Promoting Alternative Thinking Strategies (PATHS; Kusche & Greenberg, 1994), are available for class-wide implementation. Teachers’ use of effective teaching and management strategies to increase instructional time and reduce disruptions has been shown to be effective in improving high-risk children’s executive functioning (Webster-Stratton & Reid, 2004) and the quality of teacher-child relationships (Pianta & Stuhlman, 2004). In addition, individualized instruction (Connor et al., 2010) and increasing children’s robust physical activity have shown promise (Hillman, Castelli, & Buck, 2005) for older children and would be worth exploring with preschoolers.

Furthermore, strengthening expressive language can potentially provide children important competencies for expressing emotions and improving social communication (Menting et al., 2011; Séguin et al., 2009), in turn reducing children’s reliance on expressing themselves through challenging behaviors. A promising finding from this
study is that children with challenging behaviors improved in their use of expressive language after just one year’s participation in the intervention. This was shown by a significant change in the distribution of standard scores on the Expressive Vocabulary Test-2 in Phase 1, as well as reports of children’s growth in language and social communication in Phase 2 of the study.

These findings complement the results from other studies of the effects of Getting Ready. Sheridan et al. (2011) reported that preschoolers in Head Start who received the intervention showed significant gains when compared to children in the comparison group on measures of teacher-rated language skills, and those for whom developmental concerns were noted demonstrated stronger rates of improvement on direct assessment of children’s expressive language. Infants and toddlers with some evidence of developmental delay who received the Getting Ready intervention as an augmentation to their Early Head Start program also showed significant differences on a direct measure of language skills when compared to children in the Early Head Start “business as usual” group (Marvin et al., 2014).

Qualitative data from Phase 2 pointed to parents and teachers selecting social/behavioral goals that would promote growth of expressive language; for example, using words to share and take turns, participating in classroom activities, and interacting with peers were mentioned. In addition, many of the academic goals selected for the children involved vocabulary and concept development, such as naming shapes and colors. Strategies used by team members to achieve these goals often incorporated visual support which has been associated with improvements in language (Meadan, Ostrosky, Triplett, Michna, & Fettig, 2011).
This study provides both quantitative and qualitative evidence that children with challenging behaviors can make significant gains in expressive language over the course of one year’s participation in Getting Ready. This adds to the extant literature regarding Getting Ready and language outcomes for young children, as well as holds promise for Getting Ready as an intervention that may improve competencies for self-expression and social communication for children with challenging behaviors.

**Functional improvements in spite of persistent challenging behaviors.** The constellation of children’s difficulties was found to persist, in spite of parent-professional teams’ efforts to intervene. Contrary to the research hypotheses, results from Phase 1 did not indicate significant improvements from Time 1 to Time 2 for the 19 children’s problem behaviors and social skills in home and school settings or for teachers’ reports of the children’s executive functioning. Information gathered in Phase 2 painted a mixed picture of children’s progress in demonstrating positive behavior after a year or more of the Getting Ready intervention.

Positive and/or improved classroom behavior was described for three of the four children in Phase 2. The fourth child demonstrated improved cooperation with his mother at home, although he continued to display challenging behaviors in the classroom setting. In Phase 2, families, teachers, and coaches described some remarkable changes for these children in their abilities to function within these environments. Reductions in frequency, intensity, and duration of problem behaviors were reported. One teacher, for example, said this regarding a child’s reluctance to get off the bus and come into school: “The beginning of the year was pretty rough. But it progressed pretty quickly and …by this time last year [spring of Year 1], once in a great while she would come down off the bus,
kind of sulky.” This teacher explained that this child had progressed from having meltdowns daily in the classroom at the beginning of the school year to having about one a month by the end of Year 1. An exploration of family functioning in Phase 2 revealed that parents utilizing childcare maintained those arrangements over time, and none of the parents reported negative financial implications resulting from the children’s behavior. This again points to the children’s functional adaptations within home and childcare settings.

Along with these signs of progress, however, some participants in Phase 2 described children’s behavioral regression and strategies working initially but then losing effectiveness, as well as frustration with such setbacks. In addition, problems with the children’s executive functioning, such as short attention spans, distractibility, impulsivity, and lack of inhibitory self-control continued to be reported by parents, teachers, and coaches well into the second year of Getting Ready intervention when they were interviewed for Phase 2 of this study.

In addition, the team process for identifying parental concerns regarding challenging behaviors within the home setting worked inconsistently. As described in the qualitative results, although signs were present, one of the parents was more reticent in discussing her child’s problematic behaviors, thus the team missed some opportunities to learn more about the child’s home experiences and advance shared efforts to resolve some behavioral challenges within the home for this particular child and family.

In order to protect the confidentiality of the participants, the IRB restricted the researcher’s ability to review scores from the quantitative measures for the four children in Phase 2. Thus, it is unknown if the quantitative measures of problem behaviors,
executive functioning, and social skills would have demonstrated significant change over the first year of *Getting Ready* for these four children, whose parents and teachers reported some functional improvement in their behaviors in one or more settings. It is interesting to note, as well, that these four families remained engaged in the preschool program and the larger *Getting Ready* project into Year 2. This may indicate, therefore, some differences in them as a subset of the group of 19 children from Phase 1 and their families. Fifteen of the 19 children attrited from the project for a variety of reasons including moving to different preschools, parents choosing to discontinue involvement in the project, or teachers changing jobs. Thus, the retention of the four children from Phase 2 in their respective preschool programs, as well as continued engagement of their parents and teachers in the *Getting Ready* project into Year 2, may point to particular resiliency factors for these children, families, and teachers that would be of interest in future studies.

These findings regarding persistent challenging behaviors highlight the complexity of issues in caring for and teaching children with these characteristics, and the instability of behavioral change. Neurobiological and social factors have been found to contribute to the development and maintenance of these behaviors (Fisher et al., 1997; Lawler & Gunnar, 2012; Shonkoff & Phillips, 2000) making them difficult to ameliorate without an intensive dosage of intervention. Thus, it is possible that one year of *Getting Ready* intervention was not potent enough to improve social-emotional/behavioral functioning consistently across home and school settings in this group of children.

Indeed, with approximately 5 months of time lapsing between Time 1 and Time 2 data collection points, it may not be surprising that many of the quantitative measures
registered little change. The larger, randomized control trial (RCT) has been designed to measure the effects of the Getting Ready intervention after the planned second year of participation has been completed.

For children with challenging behaviors, however, teams may need to consider a more intensive dosage of intervention that allows parents and teachers to more effectively use strategies, and more closely monitor children’s responses to strategies and progress as early as Year 1 of the intervention. In Phase 2 of the study, several coaches and teachers shared their beliefs that the five to six team meetings held per year, as dictated by these preschool programs, were not sufficient to meet the needs of this group of families and children. It is unclear from this study whether or not families or teachers would be open to more frequent contacts, more focused attention on strategy use with the children, and/or collection of data more sensitive to change to allow for improved progress monitoring and intervention adaptations. Indeed, as mentioned in the Phase 2 results, children’s challenging behaviors were not something three out of four parents worried about on a regular basis. For these families, other issues were more pressing and, therefore, may be more likely to be the focus of parents’ efforts and attention than interventions for their children’s behaviors.

Information gleaned from several sources in Phase 2, including documents, audio-recordings, and interviews, suggested that many parents and teachers had difficulty collecting data that sufficiently informed the team regarding the effectiveness of strategies used with children with challenging behavior. Team-developed rating scales often asked parents and teachers to report their observations of children’s performance of targeted skills/behaviors over the course of an entire week, in other words, very broadly.
While this seemed useful for some skills, for example, number of letters in the child’s name that she could write independently at the end of a given week, this method seemed less useful for behavioral skills, such as consistency in following directions at home/school or transitioning between school routines over the course of a week. For many behavioral skills, such broad measures resulted in a lack of sensitivity to change over time in the frequency, intensity, duration, and context of challenging behaviors. These broad measures, often reported verbally from recall versus written documentation, appeared to make it difficult for teams to accurately assess the effectiveness of their chosen strategies.

Although a number of parents and teachers did not regularly utilize written documentation systems for monitoring progress toward the targeted skills, coaches stated that parents and teachers were often reliable reporters of the children’s behaviors. Finding efficient systems of documenting these observations remains one of the great challenges of a data-based decision making process (Brawley & Stormont, 2014; Sandall, Schwartz, & Lacroix, 2004). Teams should consider developing data collection systems that match the strengths and interests of team members. For example, it may be more effective for a team member to call or text some parents/teachers on a weekly basis and ask how many tantrums the child had that morning before lunch as a measure of the effectiveness of selected strategies and the child’s progress over time in reducing tantrums. Use of tools such as the Parent Daily Report (PDR; Chamberlain & Reid, 1987) has shown that professionals can easily and reliably gather information recalled by parents within the past 24-hours.
Challenging behaviors and teacher-child relationships. When children display high levels of challenging behaviors they often require more effort, physically and emotionally, from their teachers who are called upon to manage their own emotions, redirect and/or assist children with challenging behaviors, as well as maintain a positive classroom environment and continue to teach the rest of the children (Friedman-Krauss, Raver, Morris, & Jones, 2014). Such efforts may take a toll on the supportive relationships teachers aim to cultivate with children in their classrooms, particularly with the children with challenging behaviors. Indeed, there was evidence from Phase 1 of a negative relationship between teachers’ reports of children’s challenging behaviors at Time 1 and ratings of the quality of their relationships with the children. Furthermore, in the current study, teachers’ perceptions of the quality of their relationships with the children did not significantly improve from Time 1 to Time 2 for the group of 19 children on the Student-Teacher Relationship Scale (STRS; Pianta, 2001), in spite of the support offered to teachers through partnerships with parents and coaches in the Getting Ready intervention. It should also be noted that teachers did not indicate that their relationships with the children had weakened further over the course of the year. In addition, per teacher report, no significant improvement or deterioration in children’s challenging behaviors were noted from Time 1 to Time 2.

These results were explored in Phase 2, and teachers expressed both positive and negative perspectives about children with challenging behaviors. Some positive teacher perspectives regarding the children were found in these comments: “He has made progress in staying in small group.” “She is able to do what she’s asked to do.” “He gets very excited about using new [strategies].” “[The communication sheet] helps him and
reminds him of some of the things that we want him to do throughout the day. That seems to work.” None of the teachers reported that the children’s behaviors became worse over the course of their preschool experience, rather that, for some children, early challenging behaviors persisted or occasionally re-emerged. Concerns about negative behaviors and the challenges these posed to teachers remained into the second year of participation in Getting Ready when teachers shared the following current behavioral observations regarding three different children: “He’s been kicking me in the stomach, and so I refuse to help him when he’s having those hard times.” “He just wants to do what he wants to do during the day.” “She’s tired and she really doesn’t want to have to listen to anybody today. Even if she likes you, she really doesn’t want to have to listen to you.”

In Phase 2, teachers described some growth in children’s functional, positive behavior, although data collected by the parents and teachers indicated improvement was often incremental, and behavioral strategies only partially successful. Teachers also shared that particular classroom routines, frequently those occurring in large groups or with teacher-directed activities, continued to be challenging. Teachers were often able to predict how a day at preschool would go by children’s demeanor when arriving at school. They expressed both genuine caring for the children as well as frustration with some children’s slow progress in gaining social-emotional competencies.

These results provided insight into the complexity of teachers’ relationships with these children. Other investigations have demonstrated the association between teaching children with challenging behaviors and levels of teacher stress, as well as burnout (Jennings & Greenberg, 2009; Zhai, Raver, & Li-Grining, 2001). Yet positive teacher-child relationships have consistently predicted reductions in externalizing behaviors and
stronger academic performance in later school years (Baker, 2006; Silver, Measelle, Essex, & Armstrong, 2005). Data from the current study revealed the delicate balance of the teachers’ experiences between finding encouragement in children’s incremental progress and managing the on-going stress of dealing with their persistent challenging behaviors.

In this study, the Student-Teacher Relationship Scale (STRS; Pianta, 2001) was selected to measure teachers’ perceptions of three aspects of their relationships with children: closeness, conflict, and dependency. This tool is frequently used and demonstrates empirical validation for evaluating these constructs (Sabol & Pianta, 2012). Lack of change in the total scores of this measure after one year of Getting Ready intervention may have several explanations. One is that children’s challenging behaviors are chronic and slow to change, thus these challenges remained (as indicated by lack of change in the teachers’ and parents’ measures of problem behaviors) and continued to negatively influence teacher-student relationships after one year of intervention. Another possible explanation would be this study lacked statistical power due to small sample size, and therefore, change in the STRS scores was not detected. Finally, the construction of the measure itself may have masked important changes in teachers’ perceptions of their relationships with this population of children. The STRS is designed to assess teachers’ perspectives of their beliefs about their relationships with students as well as beliefs about how students behave toward them. Hamre and Pianta (2001) have used a combination of the conflict and dependency factors from the STRS to derive a “Relational Negativity score” (p. 628) that hones in on the negative components of children’s challenging behaviors that are highly related to teacher-student relationships.
This score has been found to significantly predict a host of academic and behavioral outcomes as children move through their later school years (Hamre & Pianta, 2001). Use of the Relational Negativity score from the STRS may have provided a more sensitive measure of the construct of interest for this study. This sort of detailed factor analysis of the STRS, however, was not available from the larger project data base at the time this study was conducted.

Literature regarding the protective role of positive teacher-child relationships for children with multiple risk factors (Hamre & Pianta, 2005; Meehan, Hughes, & Cavell, 2003), along with findings from the present study, highlight the importance of strengthening teachers’ abilities to develop supportive teacher-child relationships with these most challenging of children. This finding has implications for training of teachers, in particular, discovering effective methods for developing individual teacher characteristics and skills that target improved warm and sensitive teacher-child interactions.

**Parents and teachers: Partners for the long haul.** While higher levels of children’s problem behaviors were associated with poorer quality teacher-child relationships, this phenomenon did not generalize to parents’ and teachers’ reports of their relationships with each other. Although Phase 1 results did not indicate significant change in teachers’ and parents’ reports of the quality of their relationships after one year of working together, this was not surprising as the median Time 1 scores for these measures already fell within a range indicating parents’ and teachers’ satisfaction with their relationships. Overall scores for these respective checklists resulted from computing an average for the 24-item Likert-type scales wherein a respondent frequently agreeing
with positive statements about the relationship was assigned a 4.00 and almost always agreeing with a statement was assigned a 5.00. The median Time 1 score for the PTRS-Parent form was 4.58 (IQR: 4.00 – 4.92), while the median Time 1 score for the PTRS-Teacher form was 4.00 (IQR: 3.21 – 4.42).

Phase 2 analyses, however, provided qualitative descriptions of the strength and reciprocal nature of the relationships that developed in the four parent-teacher partnerships over time. Teachers expressed a better understanding of the family-life and functioning for the four children’s families, as well as parents’ unique strengths and/or needs for information or support regarding their children’s development. Parents shared that they felt included as full team members, respected by professionals, and connected to their children’s educational worlds. Team members expressed a sense of genuine commitment to working together for the benefit of the children. As one coach said, “Because parents and teachers were working together, and in spite of some on-going challenges that may not have ever been ameliorated, both parties kept with it. They stuck with it longer and they tried more things because of their partnership.” Consistency of approaches, persistence in using effective strategies over time, and communication across environments are key components of effective interventions for children with challenging behaviors (Sheridan et al., 2006; Smith & Fox, 2003). These findings point to the capacity of the Getting Ready intervention, with its focus on training and supporting teachers to establish and nurture parent-professional partnerships, to set the stage for the sort of collaboration needed to design, deliver, and monitor the effectiveness of strategies for these highly vulnerable children.
The chronicity and severity of the multiple risk factors characteristic of the children and families such as those identified for this study, often prompts multiple agency support (Vinson et al., 2001). This group of families, teachers, and children tended to have several agencies and/or consultants involved in providing support to home and school environments. This posed dilemmas to the Getting Ready teams in the form of mixed messages, an overload of strategies proposed, and poor communication among entities, as well as presented the primary investigators of the Getting Ready intervention with confounding variables. For some children, the expansion of the Getting Ready team to include community participants other than coach, teacher, and parent may be desirable. Such an interdisciplinary approach would encourage open communication between stakeholders, better coordination/integration of strategies and supports, and more efficient use of resources as all professionals wrap around families to provide needed assistance (Vandenburg, 1993). As with all teams, inclusion of a variety of participants necessitates a clear vision of team goals, as well as members’ roles and responsibilities. Communication about the philosophy and aims of the Getting Ready intervention would need to be shared with all potential team members, and invitations extended to learn how Getting Ready principles could be incorporated into the preferred practices of other agencies.

**Directions for Future Research**

The results of this study are preliminary, yet promising. In spite of the stresses of children’s challenging behaviors and lack of statistical significance in change scores for Time 1 to Time 2, functional improvements were reported by coaches, teachers, and parents for four children’s behavior in home and/or school environments. In addition,
these team participants remained committed to the collaborative processes they had built over a year and a half of engagement in the \textit{Getting Ready} intervention. Questions remain about the dosage of \textit{Getting Ready} intervention that is needed to effect meaningful improvement in children’s social and behavioral skills prior to their entry into formal school settings. Children’s challenging behaviors are persistent and often cross environments, necessitating coordination of efforts by their parents, teachers, and other professionals such as Early Intervention (EI) coaches, special educators, school psychologists, mental health therapists, or behavioral consultants. Furthermore, in the current study, program policies limited teacher home visits to five or six contacts per year. This may not be enough for this population of children. More frequent contacts between the stakeholders may provide the intensity of intervention needed by allowing professionals and parents to more closely monitor parents’ and teachers’ use of strategies, monitor children’s progress, and adapt strategies they are using as needed for more effective implementation. However, the extended enrollment into Year 2 of \textit{Getting Ready} may prove successful in providing the appropriate dosage of intervention over time.

The four cases studied in Phase 2 presented varying profiles of children’s challenging behaviors, parenting styles, teacher-child relationships, and response to the \textit{Getting Ready} intervention, although all children met study criteria of having scores from parent- and/or teacher-reported problem behavior checklists at or above the 75th percentile when compared to their peers at Time 1. Children presented with either externalizing or internalizing behavior challenges. Harsh, permissive, and uninvolved parenting styles were described across the four families. Teachers displayed varying
degrees of emotional warmth and sensitivity toward the children. Thus, future research into how interventions targeting parent-professional partnerships are moderated by these distinct profiles of children, parenting styles, and teacher-child relationships would provide direction for identifying at-risk children and their families, selecting effective strategies and dosage of intervention, enhancing the professional development of current teachers, and guiding the training of new teachers.

Pre-service teacher training is a prime target for improving teachers’ abilities to effectively teach children with challenging behaviors by strengthening two professional competencies highlighted by this study. The first is forming effective relationships with the children. A number of scholars have drawn attention to promising process-oriented professional development to improve in-service teachers’ relationships with children (Pianta, Mashburn, Downer, Hamre, & Justice, 2008; Webster-Stratton et al., 2001). Sabol and Pianta (2012) lamented, however, the dearth of efforts in modifying existing pre-service training to strengthen teachers’ relational practices before they enter the work force. There is a call for inquiry into the best methods of translating what works for improving teachers’ relational practices with children into effective training and support for pre-service teachers. Investigation is needed into how pre-service programs can quickly move aspiring teachers from awareness/knowledge levels of professional practice to application and refinement. In particular, providing support from a coach/mentor within real-work contexts as the pre-service teachers move through practicum and student-teaching experiences should be explored. This study found that the support of coaches was essential to the growth of teachers’ independence in using Getting Ready collaborative practices, as well as teachers’ willingness to persist in promoting parent-
teacher partnerships in some difficult situations. Thus, pre-service training that emulates this process-oriented approach (Sheridan, Edwards, Marvin, & Knoche, 2009) by providing coaches to observe, offer feedback to, demonstrate for, and prompt reflection in pre-service teachers in real-work settings is worthy of study.

The second important pre-service teacher competency is forming effective partnerships with parents. This and previous studies of the Getting Ready intervention have shown the usefulness of the Getting Ready approach in focusing in-service teachers’ use of strategies that strengthen bonds with parents around common goals for improving children’s skills. Future investigation of the challenges and efficacy of training pre-service teachers in the use of these strategies would add to the body of knowledge regarding important components to include in pre-service teacher training and the value of the Getting Ready strategies.

Limitations

This study explored relationships among a variety of child, parent, and teacher variables when the children displayed high levels of challenging behaviors, and examined the processes parent-professional partnerships used to address the children’s developmental needs in home and school environments. This synthesis of information can inform the principal investigators of Getting Ready of the intervention’s utility for this vulnerable population of children, and their parents, preschool teachers, and EI coaches. It is limited, however, in its scope in that a comparison group of participants who did not receive the intervention was not studied. Causal inferences, therefore, cannot be made with regard to the significant improvement seen in the Phase 1 group of 19 children’s expressive language. While the threat to causal validity of maturation is
controlled for by the standardized nature of the measure of this construct, other threats remain including history of participation in preschool as a plausible explanation for this finding. Further investigation of these variables with treatment and comparison groups is currently on-going and will provide information regarding the efficacy of Getting Ready for children with developmental delays, including social-emotional delays and challenging behaviors.

A second limitation of this study was the small sample size for the Phase 1 quantitative analyses. This likely impacted statistical power, making it more difficult to detect relationships existing between the treatment and the outcomes. Qualitative data suggested mixed results. Functional improvements were noted for all four children in Phase 2, however, the demonstration of positive behaviors across home and school environments was inconsistent. In the on-going RCT of Getting Ready, more participants in future cohorts who meet the criteria of displaying high levels of problem behaviors will be available for further investigation.

In this study, with the exception of the Social Skills Improvement System: Parent and Teacher versions, global scores from the quantitative measures were utilized in preliminary analyses of relationships among and change in child, parent, and teacher variables. A number of these assessments are comprised of subscales whose scores may have provided a finer understanding of child, parent, and/or teacher characteristics or influenced questions asked during the Phase 2 interviews. Future studies of this population of participants would benefit from deeper exploration of the constructs represented by these assessment subscales (e.g. Relational Negativity score from the Student Teacher Relationship Scale; Hamre & Pianta, 2001; Joining and Communication-
to-others scores from the Parent-Teacher Relationship Scale: Parent and Teacher versions; Vickers & Minke, 1995).

Finally, using the same informant (teachers) for measures of problem behaviors, executive functioning, social skills, and teacher-child relationships may have resulted in inflated significance of the associations among these constructs (Obradović et al., 2012). Utilizing multiple ways of measuring the constructs, for example, adding classroom observational data or direct assessment of child executive functioning, may be helpful to better understand these complex relationships.

**Conclusion**

Forming effective parent-professional partnerships holds promise for addressing the significant issues posed by this group of children and the constellation of difficulties they display with regard to higher levels of challenging behaviors, poorer executive functioning, and weaker social skills. In particular, the *Getting Ready* intervention provided a framework for establishing and nurturing parent-teacher partnerships as well as a mechanism of collaborative planning by teams to promote change. These reciprocal partnerships allowed participants to remain committed and engaged in their efforts to manage children’s challenging behaviors over time, even in the face of some difficult situations. Qualitative descriptions provided by parents, teachers, and EI coaches indicated functional behavioral improvements in one or more environments for four children. For the group of 19 children, expressive language skills improved providing critical competencies young children need for social interaction and self-regulation. In spite of these positive findings, however, core issues of chronic challenging behaviors appeared to persist for many of the children participating in this study, and there were
indicators of the impacts of children’s challenging behaviors on the quality of teachers’ relationships with these children. While these findings are preliminary and limited in scope, it appears some adjustments to the *Getting Ready* process may boost the effectiveness of the intervention for this group of children whose challenging behaviors proved to be quite persistent after the first year of participation in *Getting Ready*. In particular, further investigation into increased dosage of intervention, as well as tightening of intervention targets, strategies, and progress monitoring approaches is warranted in efforts to build on the *Getting Ready* intervention’s strong foundation of parent-professional partnerships for this population of children.

Children’s challenging behaviors tax the patience and skills of parents and preschool teachers. Left unchecked, young children with challenging behaviors face poor outcomes in later childhood, adolescence, and adulthood. Pursuing effective early intervention is, therefore, critical for the young children who display these behaviors, their families, professionals who support children and families, and society in general.
References


development through age thirteen. *Child Development, 72*(6), 1868-1886. doi: 10.1111/1467-8624.t01-1-00383


Paper presented at the Annual Meeting of the National Association for the Education of Young Children (NAEYC), New York, NY.


Young Children.


Flisher, A., Kramer, R., Hoven, C., Greenwald, S., Alegria, M., Bird, H., ... Moore, R. (1997). Psychosocial characteristics of physically abused children and


doi:10.1093/cs/cdt014


http://fcd-us.org/resources/prekindergartners-left-behind-expulsion-rates-state-prekindergarten-programs


<table>
<thead>
<tr>
<th>Name of Program</th>
<th>Key Features</th>
<th>Summary of Evidence Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Step to Success</td>
<td><strong>Target:</strong> at-risk kindergartners Universal screening</td>
<td>Reduced aggression and maladaptive behaviors</td>
</tr>
<tr>
<td>(Walker et al., 1998)</td>
<td><strong>Coordinated interventions:</strong></td>
<td>Increased academic engaged time</td>
</tr>
<tr>
<td></td>
<td><strong>School:</strong> target child, teacher, peers</td>
<td>Increased adaptive behavior</td>
</tr>
<tr>
<td></td>
<td><strong>Home:</strong> Parent training</td>
<td>Durable results into Grade 2</td>
</tr>
<tr>
<td></td>
<td><strong>Service delivered by consultant</strong></td>
<td></td>
</tr>
<tr>
<td>Living with a Purpose Self-Determination Program</td>
<td><strong>Target:</strong> 3- to 5-year-olds Universal screening</td>
<td>Improved adaptive behavior</td>
</tr>
<tr>
<td>(Forness et al., 2000)</td>
<td>**Classroom-wide intervention—self-determination curriculum builds skills</td>
<td>Increased social interaction</td>
</tr>
<tr>
<td></td>
<td>such as direction following, decision-making, sharing</td>
<td>Reduced inattention</td>
</tr>
<tr>
<td></td>
<td><strong>Parent training</strong></td>
<td>Reduced problem behavior</td>
</tr>
<tr>
<td></td>
<td>**Follow-up with pre-referral intervention or special education referral,</td>
<td>No significant effects for aggression or non-compliance</td>
</tr>
<tr>
<td></td>
<td>if needed</td>
<td></td>
</tr>
<tr>
<td>Incredible Years</td>
<td><strong>Target:</strong> preschoolers through 1st grade Classroom-wide management</td>
<td>Increased positive parenting and parent-school bonding</td>
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<tr>
<td>(Dinosaur School, Webster-Stratton,</td>
<td><strong>Teacher training</strong></td>
<td>Reduced harsh parental discipline</td>
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<tr>
<td>Reid, &amp; Hammond, 2001)</td>
<td><strong>Parent training</strong></td>
<td>Reduced conduct problems and aggression at school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improved child compliance and social contact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased school readiness skills</td>
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<tr>
<td></td>
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<td>Greater positive classroom atmosphere</td>
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<td>Positive satisfaction rating: Parents- 89% Teachers- 97%</td>
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<td>Name of Program</td>
<td>Key Features</td>
<td>Summary of Evidence Base</td>
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<td>Prevent-Teach-Reinforce for Young Children</td>
<td>Target: toddlers or preschoolers in classroom settings</td>
<td>Controlled trial in progress</td>
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<td>Dunlap, Lee, &amp; Strain, (2013)</td>
<td>Tier 3- individualized intervention</td>
<td>Research support for components of PTR-YC</td>
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<td></td>
<td>5-step process: team formation and goal setting, data collection, functional</td>
<td>including PBS, functional behavioral assessment, efficacy of PTR in school-aged children</td>
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<td></td>
<td>behavioral assessment, behavior intervention planning, progress monitoring</td>
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<td>Characteristics</td>
<td>Children $(n = 19)$</td>
<td>Parents $(n = 19)$</td>
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<td>---------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Age (years)</td>
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<td>31.1 $(SD = 6.6)$</td>
</tr>
<tr>
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<td></td>
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<tr>
<td>Female</td>
<td>32%</td>
<td>84%</td>
</tr>
<tr>
<td>Male</td>
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<td>16%</td>
</tr>
<tr>
<td>Race</td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td>53%</td>
<td>84%</td>
</tr>
<tr>
<td>Black</td>
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<td>5%</td>
</tr>
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<td>American Indian</td>
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<td>5%</td>
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<td>Biracial/multi-racial</td>
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<td>5%</td>
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<td>0%</td>
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<td>Language Preference</td>
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<tr>
<td>Spanish</td>
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<td>Living with partner</td>
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<td>Divorced, single, or separated</td>
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<td>Highest Level Education</td>
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<td>Below 12th grade</td>
<td>16%</td>
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</tr>
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<td>High school diploma/ GED</td>
<td>31%</td>
<td>0%</td>
</tr>
<tr>
<td>Training beyond high school</td>
<td>21%</td>
<td>0%</td>
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<tr>
<td>Two- or four-year college degree</td>
<td>32%</td>
<td>73%</td>
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<td>Graduate degree</td>
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<td>Early Childhood Teaching</td>
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<td>Endorsement or Certificate</td>
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<td>Experience (years)</td>
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<td>Teaching children ages birth</td>
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<td></td>
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<tr>
<td>to 5 in early childhood setting</td>
<td></td>
<td></td>
</tr>
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<td>Being employed in current position</td>
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<td></td>
</tr>
<tr>
<td>Instrument</td>
<td>Author</td>
<td>Description</td>
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<td><strong>Social Skills Improvement System:</strong> Parent Form</td>
<td>Gresham &amp; Elliott, (2008)</td>
<td>Parent checklist assessing child problem behaviors and social skills via two subscales Yields standard scores ($X = 100; SD = 15$)</td>
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<tr>
<td><strong>Social Skills Improvement System:</strong> Teacher Form</td>
<td>Gresham &amp; Elliott, (2008)</td>
<td>Teacher checklist assessing child problem behaviors and social skills via two subscales Yields standard scores ($X = 100; SD = 15$)</td>
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<td><strong>Brief Rating Inventory of Executive Functioning-Pre-School</strong></td>
<td>Gioia, Isquith, Guy, &amp; Kenworthy, (2000)</td>
<td>Teacher checklist assessing inhibitory self-control, flexibility, and emergent metacognition Yields t-scores ($X = 50; SD = 10$)</td>
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<td>Instrument</td>
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<td>Description</td>
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<td>Dunn &amp; Dunn, (2007)</td>
<td>Direct test of child receptive vocabulary</td>
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<td></td>
<td>Yields standard scores (X = 100; SD = 15)</td>
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<td>Expressive Vocabulary Test-2</td>
<td>Williams (2007)</td>
<td>Direct test of expressive vocabulary and word retrieval</td>
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<td></td>
<td>Yields standard scores (X = 100; SD = 15)</td>
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<td>Revised</td>
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<td>Subtests: Colors, Letters, Numbers, Sizes/Comparisons, and Shapes</td>
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<td>Yields standard scores (X = 100; SD = 15)</td>
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(continued)
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<thead>
<tr>
<th>Instrument</th>
<th>Author</th>
<th>Description</th>
<th>Reliability</th>
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<tbody>
<tr>
<td>Parent Measures</td>
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<tr>
<td>Parent-Teacher Relationship Scale- Parent Version</td>
<td>Vickers &amp; Minke, (1995)</td>
<td>Parent completed 24-item questionnaire measuring cohesion (emotional bonding) and adaptability (ability to change as needed) within the parent-teacher relationship</td>
<td>Yields average of 5-point Likert scale</td>
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<td></td>
<td></td>
<td></td>
<td>Internal consistency for two subscales, alpha coefficients:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Joining = .98, Communication-to-other = .86</td>
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<tr>
<td>Family Involvement Questionnaire</td>
<td>Fantuzzo, Tighe, &amp; Childs, (2000)</td>
<td>Parent completed 36-item questionnaire regarding nature and extent of parents’ involvement and activity in children’s education</td>
<td>Yields average of 4-point Likert scale</td>
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<td>Internal consistency for three factors, alpha coefficients:</td>
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<td></td>
<td></td>
<td></td>
<td>School-Based Involvement (.85), Home-Based Involvement (.85), and Home-School Conferencing (.81)</td>
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</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Author</th>
<th>Description</th>
<th>Reliability</th>
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<tr>
<td><strong>Teacher Measures</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Parent-Teacher Relationship Scale- Teacher Version</td>
<td>Vickers &amp; Minke, (1995)</td>
<td>Teacher completed 24-item questionnaire measuring cohesion (emotional bonding) and adaptability (ability to change as needed) within the parent-teacher relationship</td>
<td>Internal consistency for two subscales, alpha coefficients:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yields average of 5-point Likert scale</td>
<td>Joining = .98, Communication-to-other = .85</td>
</tr>
<tr>
<td>Student-Teacher Rating System</td>
<td>Pianta, (2001)</td>
<td>Teacher checklist assessing teacher-child relationships</td>
<td>Internal consistency, alpha coefficients:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yields average of 5-point Likert scale</td>
<td>Conflict (.92), Closeness (.86), Dependency (.64), and Total (.89)</td>
</tr>
<tr>
<td>Source</td>
<td>Collection Point</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Collaborative Planning</td>
<td>Family contacts including parent-teacher conferences (2) and home visits (up to 4) throughout the school year</td>
<td>$n = 21$ Coach uses meeting notes, Home School Plans, and Getting Ready Scales (data collection sheets) to enter the following information in on-line form:</td>
<td></td>
</tr>
</tbody>
</table>
| Documentation Forms             |                                                                                   | *meeting date, time, duration, location, and participants  
*collaborative planning steps completed  
*summary of discussion  
*parent-teacher partnership strategies observed  
*summary of teacher’s use of these partnership strategies  
*summary of parent-child interaction  
*summary of the data collected at home and school  
*progress toward the prioritized skill  
*other relevant information |
<p>| Home-School Plans               | Family contacts including parent-teacher conferences (2) and home visits (up to 4) throughout the school year | $n = 21$ Record of the specific behavioral/educational target for the child, strategies parents will utilize at home, strategies teacher will use at school, and strategies for partnering and/or communicating between home and school |</p>
<table>
<thead>
<tr>
<th>Source</th>
<th>Collection Point</th>
<th>Description</th>
</tr>
</thead>
</table>
| Getting Ready Scale (Home and School Versions) | Weekly or daily | $n = 21$
| | | Data collection sheet for prioritized child target behavior/skill
| | | An individualized (team-defined) 5-point Likert-type scale is used to note the level of demonstrated abilities
| | | Parent/ teacher records the date and rates the child’s level of demonstrating the targeted skill |
| Modified Parent Daily Report (PDR) | Contacted by phone 3 times a year | $n = 6^a$
| | | A modified version of the PDR consisting of 14 negative and 14 pro-social behaviors
| | | Parents were asked to report on children’s behavior over the past 24 hours, and home activities supporting learning within the past 24 hours |
| Audiotapes | 2nd parent-teacher conference of the school year | $n = 4$
| | | Audio recording- 1 per team |
| Face-to-Face Interviews | March, 2014 | $n = 9$
| | | Interviews with parent, teacher, and coach of purposively sampled children
| | | Sample interview protocols found in Appendix B
| | | Researcher took notes at interview as well as audio-recorded. Tapes were transcribed verbatim |

$^a$Modified PDR interviews completed with 3 out of the 4 parents.
Table 5

Descriptive Statistics and Spearman Rank-Order Correlations of SSIS-Teacher: Problem Behaviors Scores to Teacher, Child, and Parent Measures at Time 1

<table>
<thead>
<tr>
<th>Measure</th>
<th>N</th>
<th>Mdn</th>
<th>IQR</th>
<th>ρ</th>
<th>p-value</th>
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<tbody>
<tr>
<td>Child Measures</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>SSIS-Teacher: Social Skills&lt;sup&gt;a&lt;/sup&gt;</td>
<td>19</td>
<td>84.00</td>
<td>77.00 - 95.00</td>
<td>-.750</td>
<td>&lt;.001</td>
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<tr>
<td>SSIS-Parent: Problem Behaviors&lt;sup&gt;a&lt;/sup&gt;</td>
<td>18</td>
<td>110.00</td>
<td>102.75 - 118.00</td>
<td>-.181</td>
<td>.471</td>
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<tr>
<td>SSIS-Parent: Social Skills&lt;sup&gt;a&lt;/sup&gt;</td>
<td>17</td>
<td>97.00</td>
<td>90.50 - 105.50</td>
<td>.203</td>
<td>.436</td>
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<td>Behavior Rating Inventory of Executive Functioning&lt;sup&gt;c&lt;/sup&gt;</td>
<td>19</td>
<td>62.00</td>
<td>53.00 - 75.00</td>
<td>.803</td>
<td>&lt;.001</td>
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<td>Peabody Picture Vocabulary Test-4&lt;sup&gt;a&lt;/sup&gt;</td>
<td>19</td>
<td>91.00</td>
<td>87.00 - 98.00</td>
<td>-.009</td>
<td>.972</td>
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<td>Expressive Vocabulary Test-2&lt;sup&gt;a&lt;/sup&gt;</td>
<td>19</td>
<td>89.00</td>
<td>80.00 - 96.00</td>
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<td>.145</td>
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<td>74.00 - 90.00</td>
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<td>Teacher Measures</td>
<td></td>
<td></td>
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<tr>
<td>Parent-Teacher Relationship Scale-Teacher&lt;sup&gt;b&lt;/sup&gt;</td>
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<td>-.789</td>
<td>&lt;.001</td>
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<td>Parent Measures</td>
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<tr>
<td>Parent-Teacher Relationship Scale-Parent&lt;sup&gt;b&lt;/sup&gt;</td>
<td>19</td>
<td>4.58</td>
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<td>19</td>
<td>2.42</td>
<td>2.19 - 2.58</td>
<td>-.029</td>
<td>.906</td>
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Note: IQR = interquartile range. ρ = Spearman’s Rho.
<sup>a</sup>M = 100, SD = 15.  <sup>b</sup>5-point Likert-like scale.  <sup>c</sup>M = 50, SD = 10.  <sup>d</sup>4-point Likert-like scale.
Table 6

Descriptive Statistics and Results and Effect Sizes of Wilcoxon’s Signed Ranks Tests of Change Over Time (Time 1 to Time 2) for Child, Parent, and Teacher Measures

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mdn</th>
<th>IQR</th>
<th>z</th>
<th>p-value</th>
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<tr>
<td><strong>Child Measures</strong></td>
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<td>Peabody Picture Vocabulary Test-4&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Time 1</td>
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<td>91.00</td>
<td>87.00-98.00</td>
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<td>.652</td>
<td>.08</td>
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<tr>
<td>Time 2</td>
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<td>93.00</td>
<td>84.75-101.00</td>
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<td>.375</td>
<td>.08</td>
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<tr>
<td>Time 1</td>
<td>19</td>
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<td>80.00-96.00</td>
<td>-2.135*</td>
<td>.033</td>
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<td>.32</td>
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</tr>
<tr>
<td>Time 1</td>
<td>19</td>
<td>82.00</td>
<td>74.00-90.00</td>
<td>-1.896</td>
<td>.058</td>
<td>.32</td>
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<tr>
<td>Time 2</td>
<td>18</td>
<td>88.50</td>
<td>77.75-95.50</td>
<td>-1.896</td>
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<tr>
<td>Behavior Rating Inventory of Executive Functioning&lt;sup&gt;d&lt;/sup&gt;</td>
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<tr>
<td>Time 1</td>
<td>19</td>
<td>62.00</td>
<td>53.00-75.00</td>
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<tr>
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<td>SSIS-Teacher: Problem Behaviors&lt;sup&gt;a&lt;/sup&gt;</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>19</td>
<td>117.00</td>
<td>110.00-126.00</td>
<td>-1.460</td>
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</tr>
<tr>
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<tr>
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<tr>
<td>Time 1</td>
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<td>.127</td>
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<td>SSIS-Parent: Problem Behaviors&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>Time 1</td>
<td>18</td>
<td>110.00</td>
<td>102.75-118.00</td>
<td>-1.525</td>
<td>.127</td>
<td>.25</td>
</tr>
<tr>
<td>Time 2</td>
<td>19</td>
<td>118.00</td>
<td>108.00-127.00</td>
<td>-1.525</td>
<td>.127</td>
<td>.25</td>
</tr>
<tr>
<td>SSIS-Parent: Social Skills&lt;sup&gt;a&lt;/sup&gt;</td>
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<td></td>
</tr>
<tr>
<td>Time 1</td>
<td>17</td>
<td>97.00</td>
<td>90.50-105.50</td>
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<td>.925</td>
<td>.02</td>
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<tr>
<td>Time 2</td>
<td>16</td>
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<td>85.50-105.00</td>
<td>-.094</td>
<td>.925</td>
<td>.02</td>
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</table>

**Parent Measures**

| Parent-Teacher Relationship Scale-Parent<sup>b</sup> |    |       |           |      |         |      |
| Time 1                   | 19 | 4.58  | 4.00-4.92 | -.256 | .798    | .04  |
| Time 2                   | 17 | 4.79  | 3.77-4.98 | -.256 | .798    | .04  |

| Family Involvement Questionnaire<sup>c</sup> |    |       |           |      |         |      |
| Time 1                   | 19 | 2.42  | 2.19-2.58 | -.879 | .379    | .15  |
| Time 2                   | 17 | 2.42  | 2.32-2.67 | -.879 | .379    | .15  |

**Teacher Measures**

| Parent-Teacher Relationship Scale-Teacher<sup>b</sup> |    |       |           |      |         |      |
| Time 1                   | 19 | 4.00  | 3.21-4.42 | -.719 | .472    | .11  |
| Time 2                   | 18 | 3.79  | 3.19-4.24 | -.719 | .472    | .11  |

(continued)
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<th>Mdn</th>
<th>IQR</th>
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<th>p-value</th>
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<tbody>
<tr>
<td>Student-Teacher Relationship Scale&lt;sup&gt;b&lt;/sup&gt;</td>
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<td></td>
<td></td>
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<tr>
<td>Time 1</td>
<td>19</td>
<td>3.75</td>
<td>3.36- 4.07</td>
<td>-1.613</td>
<td>.107</td>
<td>.27</td>
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<tr>
<td>Time 2</td>
<td>18</td>
<td>3.93</td>
<td>3.02- 4.32</td>
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Note. IQR = interquartile range.  
\[ r = \frac{z}{\sqrt{N}}. \]

<sup>a</sup>\(M = 100, SD = 15\).  
<sup>b</sup>5-point Likert-like scale.  
<sup>c</sup>4-point Likert-like scale.  
<sup>d</sup>\(M = 50, SD = 10\).
<table>
<thead>
<tr>
<th>Theme 1:</th>
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<tbody>
<tr>
<td>Family-professional partnerships were established and nurtured</td>
<td>Value of academic and behavioral goals</td>
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<table>
<thead>
<tr>
<th>Theme 2:</th>
<th>Theme 2:</th>
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<tbody>
<tr>
<td>Teams utilized collaborative planning strategies to address prioritized concerns</td>
<td>Chronic nature of children’s challenging behaviors</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme 3:</th>
<th>Theme 3:</th>
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</thead>
<tbody>
<tr>
<td>Most parents gained competence in interacting positively with their children over time</td>
<td>Family functioning and relationships during the intervention period</td>
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</table>

<table>
<thead>
<tr>
<th>Theme 4:</th>
<th>Theme 4:</th>
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<tbody>
<tr>
<td>Classroom functioning and teacher relationships during the intervention period</td>
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</table>

<table>
<thead>
<tr>
<th>Theme 5:</th>
<th>Theme 5:</th>
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<tbody>
<tr>
<td>Growth of children, parents, and teachers</td>
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</tbody>
</table>
### Table 8

**Understanding the Getting Ready Intervention for Children with Challenging Behaviors, Their Parents, and Preschool Teachers**

<table>
<thead>
<tr>
<th>Synthesized Findings</th>
<th>Phase 1: Quantitative</th>
<th>Phase 2: Qualitative</th>
<th>Representative Quotes</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Constellation of difficulties</strong>&lt;br&gt;• Challenging behaviors&lt;br&gt;• Poorer executive functioning&lt;br&gt;• Weaker social skills</td>
<td>Significant correlations at T1 between problem behaviors (SSIS-R) and&lt;br&gt;• Executive functioning difficulties (BRIEF-PRE) pos. correlation&lt;br&gt;• Social skills (SSIS-R) neg. correlation</td>
<td>• Impulsivity, distractibility, poor emotional regulation, resistance to transitions&lt;br&gt;• Yelling at peers, poor turn-taking, not following peers’ lead in play</td>
<td>“[He] thinks that the rules do not apply to him. He just wants to run, he wants to yell, he wants to hit. He’s so incredibly smart. He understands what we want [him] to do but his behavior gets in his way of his regular day of finishing out a request.” <em>(Teacher)</em></td>
<td>• SSIS-R Problem Behavior subscale as efficient/effective screening and early identification tool&lt;br&gt;• Target improvement of executive functioning and social skills</td>
</tr>
<tr>
<td><strong>Functional improvements in spite of persistent challenging behaviors</strong></td>
<td>Significant improvement from T1 to T2&lt;br&gt;• Expressive Vocabulary Test-2</td>
<td>Functional improvements&lt;br&gt;• Some behavioral and academic progress in home and/or school settings&lt;br&gt;• Expressive language&lt;br&gt;○ Behavioral goals targeted expressive communication&lt;br&gt;○ Academic goals targeted concept/vocabulary development&lt;br&gt;○ Strategies included visual supports</td>
<td>“She’s developed more. She’s just very eager about a lot of things. She wants to read more...she can’t wait to get to preschool. It’s exciting knowing that she’s developed so much in the last year and a half. It’s just a good feeling.” <em>(Parent)</em></td>
<td>• The four “continuing” children, families, and preschool teachers suggest engagement and/or resiliency factors worth exploring further&lt;br&gt;• Intensive “dosage” of intervention possibly needed for this population of children&lt;br&gt;○ Number of team meetings per year&lt;br&gt;○ Intensity of strategy use&lt;br&gt;○ Data collection for monitoring progress</td>
</tr>
<tr>
<td><strong>Persistent challenging behaviors</strong>&lt;br&gt;• Continued instances of aggression, noncompliance&lt;br&gt;• Inconsistent responses to intervention&lt;br&gt;• Need for on-going use of strategies and updating of reinforcements</td>
<td></td>
<td>“The teacher came to the realization...that he needs some sort of strategy all the time. Last year, I don’t think we realized how pervasive his behaviors were.” <em>(Coach)</em></td>
<td>• Growth in expressive language important for expressing emotions, improving social communication, reducing reliance on expression through challenging behaviors (continued)</td>
<td></td>
</tr>
<tr>
<td>Synthesized Findings</td>
<td>Phase 1: Quantitative</td>
<td>Phase 2: Qualitative</td>
<td>Representative Quotes</td>
<td>Implications</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Challenging behaviors and teacher-child</td>
<td>Significant negative correlation at T₁ between Problem Behaviors (SSIS-R) and</td>
<td>• Teachers express positive and negative perspectives</td>
<td>“At the beginning of the school year last year, you could pretty much tell how your day was going to go by how she came off the bus.” (Teacher)</td>
<td>• Complexity of teacher-student relationships: teachers encouraged by incremental progress yet needing to manage on-going stress</td>
</tr>
<tr>
<td>relationships</td>
<td>• Teacher-student relationships (STRS)</td>
<td>• Continued disruptions to large group and teacher-directed activities</td>
<td></td>
<td>• Need to strengthen teachers’ supportive relationships with this population of children</td>
</tr>
<tr>
<td></td>
<td>No change in Teacher-student relationships (STRS) from T₁ to T₂</td>
<td></td>
<td></td>
<td>• STRS Relational Negativity score may provide more sensitive measure of influence of children’s challenging behaviors on teacher-child relationships</td>
</tr>
<tr>
<td>Parents and teachers: Partners for the long</td>
<td>T₁ PTRS scores indicated satisfactory relationships at outset of study:</td>
<td>• Teachers described better understanding of family-life and functioning</td>
<td>“I’ve come to know this mom a lot better. I know what she does, how she handles her son, and the way that she works with him at home. This mom has done everything she possibly can do with her son. And I wouldn’t have known that without going into the home and actually working with her.” (Teacher)</td>
<td>• Getting Ready approach sets the stage for collaborative partnerships needed to design, deliver, and monitor interventions for children with challenging behaviors</td>
</tr>
</tbody>
</table>
| haul                                        | Parent form: $Mdn = 4.58$  
Teacher form: $Mdn = 4.00$  
No change in parent or teacher reports of their relationships (PTRS) from T₁ to T₂ | • Parents described reciprocal roles on teams, provided input, felt respected by professionals |                                                                                        | • Multiple-agency support introduces challenges to coordination of interventions/services                                               |
**Phase 1**

**Procedure**
- Subject selection: Tx children with Problem Behavior score on parent/teacher SSIS > 75th %ile
- Outcome measures: child development/behavior, parent involvement in education, teacher-child and teacher-parent relationships
- Measures completed Time 1 and Time 2 of Year 1 of intervention

**Products**
- Subjects (n = 19)
- Numerical item scores

**Phase 2**

**Procedure**
- Data screening
- Nonparametric test statistics
- Median/inter-quartile ranges
- 1-sample median tests/X²
- Spearman’s correlation
- Wilcoxon’s signed-rank tests
- Effect sizes

**Products**
- Descriptive statistics
- Correlations between child Problem Behaviors scores and child/parent/teacher variable measures
- Change scores
- Magnitude of change

**Phase 3**

**Procedure**
- Purposeful sampling of quantitative phase cases
- Revise/refine form for document/audio analysis

**Products**
- Cases (n = 4 children and each child’s parent, assigned teacher, and coach)
- Document/audio protocol

**Figure 1.** Visual diagram of sequential explanatory mixed methods design study
APPENDIX A
ARCHIVAL DOCUMENT/AUDIO-RECORDING CODING PROTOCOL

Case ID#: ______________________

Name/Purpose of Document/Audio-recording: ____________________________

Document Author: ____________________________

Participants: ____________________________

Date/Place of Document/Audio-recording Creation: ____________________________

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<th>Synopsis of document/audio-recording:</th>
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<tr>
<td></td>
<td>I.</td>
</tr>
<tr>
<td></td>
<td>II.</td>
</tr>
<tr>
<td></td>
<td>III.</td>
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<th>Uniqueness of situation for experience of process/phenomenon:</th>
<th>IV.</th>
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<table>
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<tr>
<th>Potential categories/ themes:</th>
<th>Possible excerpts for triangulation:</th>
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<td></td>
<td>Page or Time Stamp:</td>
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<td>Page or Time Stamp:</td>
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<td></td>
<td>Page or Time Stamp:</td>
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<table>
<thead>
<tr>
<th>Commentary (quotations, incidents, or impressions):</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Factors (factors or variables related to quantitative strand which emerge):</th>
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</thead>
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APPENDIX B
INTERVIEW PROTOCOLS
Parent Interview Protocol

Project: Family, Teacher, and Coach Experiences of the Getting Ready Process

Participant ID#: ________________________________

Time of Interview: ________________________________

Date: __________________________________________

Place: __________________________________________

Interviewer: ______________________________________

Say: Thank you for agreeing to chat with me about your family and especially about your child. You have been involved with the Getting Ready project at preschool for some time now and I would like to know how that’s going for you. Before we begin, I’d like to go over the consent form with you. After obtaining interviewee signature: OK. Let’s get started.

Questions:

1. Tell me about a typical team meeting with you, the preschool teacher, and the coach.

2. What sorts of things have you picked out to work on with your child this past year?
Of those things, can you tell me the most important thing you worked on?

3. What did you decide to do about it? What, if anything, did the preschool teacher decide to do about it?

4. What were challenges you encountered in using the strategies that your team decided upon? What did you do to solve those challenges?

5. Do you think the strategy you tried worked for your child? Could you describe for me what happened? How did you keep track of your child’s progress?
6. If you could change anything about your team what would it be?

Thank you for telling me about your team and what’s been going on. Now, we’re going to switch gears a bit. I’d like to know more about how life in general has been going for you and your family over the past year and a half.

7. Tell me about a typical day with this child.

How would you describe the most challenging part of your day?

8. One thing most families do is take care of many daily needs—cooking, cleaning, getting kids bathed, dressed, to school, and so forth. Tell me how you go about these tasks on a daily basis?
What is your child doing while you are doing these tasks?

9. How do you show your child that you love him/her?

How does he/she show you that you are loved?

10. When you look back over the past year and a half how would you describe your family life—about the same or changed? Tell me about that.

11. When you lie awake at night and can’t get to sleep, what do you worry about (McWilliam, 2010)?

Thank you for your time.
Preschool Teacher Interview Protocol
Project: Family, Teacher, and Coach Experiences of the Getting Ready Process
Participant ID#: ________________________________
Time of Interview: ______________________________
Date: _________________________________________
Place: _________________________________________
Interviewer: _____________________________________
Say: Thank you for agreeing to chat with me about your classroom. You have been involved with the Getting Ready project at preschool for some time now and I would like to know how that’s going for you. Before we begin, I’d like to go over the consent form with you. After obtaining interviewee signature: OK. Let’s get started.
Questions:

1. Tell me about a typical team meeting with you, the family participating in Getting Ready, and the coach.

2. What sorts of things have you picked out to work on with this family’s child this past year?

Of those things, can you tell me the most important thing you worked on?

3. What did you decide to do about it? What, if anything, did the parent decide to do about it?
4. What were challenges you encountered in using the strategies your team decided upon? What did you do to solve those challenges?

5. Do you think the strategy you tried worked for this child? Could you describe for me what happened? How did you keep track of his/her progress?

6. If you could change anything about your team what would it be?

Thank you for telling me about your team and what’s been going on. Now, we’re going to switch gears a bit. I’d like to know more about how your classroom in general has been going for you and this particular child over the past year and a half.

7. Tell me about a typical day with this child in the classroom.
What is different about him/her since he/she started preschool a year and a half ago?

What is still the same?

8. With regard to this child how would you describe the most challenging part of your day?

9. What information or practices from the Getting Ready project have been useful to you over the past year and a half?

What has been difficult to use?

Thank you for your time.
Early Interventionist (EI) Coach Interview Protocol
Project: Family, Teacher, and Coach Experiences of the Getting Ready Process
Participant ID#: ______________________________
Time of Interview: ______________________________
Date: ______________________________
Place: ______________________________
Interviewer: ______________________________

Say: Thank you for agreeing to chat with me about your work with this family and teacher. You have been involved with the *Getting Ready* project as a coach for some time now and I would like to know how that’s going for you. Before we begin, I’d like to go over the consent form with you. *After obtaining interviewee signature: OK. Let’s get started.*

Questions:

1. Tell me about a typical team meeting with you, this family, and the preschool teacher.

2. What sorts of things did the team pick out to work on with this child this past year?

Of those things, can you tell me the most important thing the team worked on?
3. What did the child’s parent and preschool teacher decide to do about it? What was your role in this decision-making process?

4. What were challenges you encountered in facilitating the process the team used as it moved from problem identification, to strategy selection, to designing a method to monitor progress?

5. What did you or other team members do to solve those challenges?
6. Do you think the strategy the team tried worked for this child? Could you describe for me what happened? How well did the parent and teacher monitor the child’s progress?

7. If you could change anything about your team what would it be?

8. What information or practices from the Getting Ready project have been useful to you over the past year and a half?

9. What has been difficult to use?

Thank you for your time.
APPENDIX C

PHASE 2 MEMBER CHECK-PARENT VERSION

Experiences with Getting Ready: A Study with Parents, Preschool Teachers, and Coaches

Recently, you participated in a study of the effectiveness of the Getting Ready Project for children with some educational needs. This study was particularly interested in children who had educational needs in regards to social behaviors and skills in home and/or school settings. I interviewed you about your experiences as a parent with the Getting Ready team, and how your child impacts family life. Your child’s teacher and the Getting Ready coach were interviewed as well. In addition, some information collected last year (2012-2013) from you, your child, and your team by the Getting Ready Project was used to understand how the process worked. All of your responses were kept confidential.

I have summarized all the information to better understand the experiences of children’s parents, teachers, and coaches who were involved in Getting Ready. I found some common responses that emerged from this information. I would now like your feedback on how I have summarized the information. I am interested in knowing how well this summary matches you and your child’s experiences with Getting Ready.

Please review the information on pages 2 to 3 of the attachment. I value your impressions about the accuracy and appropriateness of the summary statements, and the conclusions that follow. I realize that you personally will not have experienced all that is reported here, but would like you to respond to all, given your experiences.

INSTRUCTIONS: After you review all the information, hit “Reply” to this email. Please put Y for “Yes” or N for “No” on the blank line next to each question below, and feel free to add any comments you have for any of the information. There is also a blank line provided if you would like me to call you about clarification of any statement/conclusion or to collect your feedback by phone:

- Do the summary statements and conclusions make sense? __________
- Are they worded in the language you would use to describe them? __________
- Am I missing any important information in the summary statements or conclusions?
  __________________________
- Comments?______________________________
- If you would like me to call you about this information, please put your phone number here: __________

After you have responded to these questions, hit “Send.”

Note: You will see the term “challenging behaviors” used in the summary statements and conclusions below. While all children display less than positive behaviors from time-to-time, this term “challenging behaviors” refers to repeated patterns of behavior that interfere with children’s
learning or positive social interactions with others and that are not responsive to the usual adult structure and guidance.

Thank you, again, for your contribution to this study! Sincerely,

Miriam Kuhn, Ed.S., Doctoral Candidate, University of Nebraska- Lincoln
Approved by Christine A. Marvin, Ph.D., Advisor

**Summary Statements**

**Using the Getting Ready team process:**

1. **Parent-professional partnerships were established**
   - Partnerships generally were *strengthened*
   - Parents understood their roles as *key contributors* to their children’s educational development
   - Professionals better understood *families’ efforts and resources* to help their children
   - Team meeting time sometimes addressed adult priorities for *family needs*, not just child goals

2. **Teams planned together**
   - Teams set priority *goals*, selected *strategies* to use with the child, and collected information (*data*) about the child’s progress toward the goals
   - *Home and school* often chose to work on the same goal
   - Sometimes collecting information (*data*) was *difficult*
   - Sometimes using the *strategies* was *difficult*

3. **Positive interactions between parents and children were promoted**
   - Teachers used strategies they had learned from *Getting Ready* training to *encourage parents* to interact positively with their children
   - Parents grew in their efforts to *teach* their children, *pay attention* to their children, and use *positive reinforcement* with them
   - Parents grew in their efforts to set appropriate *limits* for their children
   - More *contacts* between parents and professionals would have been helpful

**How well Getting Ready worked:**

1. **Behavior and academic goals selected for the children**
   - Teams chose goals for improving children’s *behavior and social skills* and improving *academic skills* for the children
• For many parents and professionals, the *behavioral/social skills goals* were felt to be the *most important*

2. **Children’s challenging behaviors were slow to change**
   • Some parents and/or teachers *continued* to observe challenging behaviors in the children even after trying strategies as a team to address these behaviors
   • For some children, behavior would improve and then become more challenging *again*

3. **Family functioning and family relationships**
   • Parents reported some *disruptions of family routines* (Ex. bedtime, going to stores) due to the children’s challenging behaviors
   • All parents and children showed *affection* to each other
   • Parents had positive experiences with *childcare* and care of children by grandparents
   • Parents reported *financial stressors*, but *not due* to their children’s challenging behaviors

4. **Classroom functioning and teacher relationships**
   • Some children’s challenging behaviors impacted the *smoothness and success* of classroom routines
   • Teacher-led *activities and transitions* were often difficult for children with challenging behaviors
   • Teachers maintained a *respectful and professional manner* with parents and children
   • Teachers sometimes felt *frustrated* with or *out of ideas* for dealing with children’s challenging behaviors

5. **Children, parents, and teachers grew**
   • *All team members* made *efforts* to work on children’s goals
   • *All children* made at least some *progress* over the year (behavioral and/or academic) that improved their readiness for school success
   • Some parents reported a better understanding of *how their children learn*
   • Teachers grew in their abilities to promote parent-professional partnerships for *the children with challenging behaviors and other children* in their classrooms
Conclusions:

- Using the *Getting Ready* process, parents and professionals are able to develop *powerful partnerships* to promote the growth of children, including those who have some challenging behaviors.
- *Getting Ready* teams may need to meet more *frequently*, identify more *intensive strategies*, and collect information *(data)* more *specifically* about children’s challenging behaviors in order to promote children’s *consistent, positive* behavior in home, school, and community settings.
Title:
Family, Teacher, and Coach Experiences of the Getting Ready Process

Purpose:
You are invited to participate in this study because you are a parent of a young child with some educational needs, and you have participated in the Getting Ready project through your child’s preschool program. The following information is provided to help you make an informed decision about whether or not to participate in a new, complementary study. This new research study aims to identify what you experience as the parent of a young child as a course of daily life, as well as your perspective on the Getting Ready project that you have been a part of over the past 18 months. The intent is to describe your experiences in identifying valued skills you desire for your child, and how you have planned for and used strategies to help your child gain those skills. We want to understand two areas from your perspective: 1) the impact raising young children has upon families, and 2) how well the team process used in Getting Ready works for families. This will provide valuable insight for those attempting to provide educational and social support services to families. You must be 19 years of age or older to participate.

Procedure:
If you participate, you will be asked to respond to various questions concerning your experiences as a parent in a one-on-one interview with an investigator. With your permission, the investigator will audio-record the interview. The interview should last between 30 and 60 minutes and will be done at a location that is convenient for you. After the results of the interviews have been summarized, you will be contacted by phone or email to learn of the results and be invited to give feedback about their completeness and accuracy.

In addition, some of the information collected last year (2012-2013) from you, your child, and your child’s preschool teacher by the Getting Ready project will be used to understand how the Getting Ready intervention works. This information is identified by number only. The names of you, your child, and the teacher are not directly linked to the information.
**Benefits:**

By participating in this interview you will have the opportunity to provide your opinions regarding the Getting Ready intervention process, including any aspects of Getting Ready that you valued or found challenging. This information will allow us to improve the use of Getting Ready in the future.

**Compensation:**

You are being offered $35 to compensate you for the time spent in the interview as well as any travel expenses to the interview site. You will be asked to sign a receipt for this compensation. Due to the amount of compensation, your social security number is not required for the receipt.

**Risks and/or Discomforts:**

There are minimal risks associated with this research. Some of the questions may make you feel uncomfortable, and you are free to not answer any question you wish. You may end the interview at any time. If you experience any problems from participating in this study, treatment is available on a sliding fee scale at the UNL Counseling and School Psychology Clinic (402-472-1152).

**Confidentiality:**

Any information obtained during this study that could identify you will be kept strictly confidential. Upon your acceptance of this agreement, any data associated with you or your child will be identified only by a unique number, not your name, address, or contact information. Information that is collected will be stored in a locked cabinet in the investigator’s office and will only be seen by the investigator during the study. Five years after the conclusion of the study, all records will be destroyed. The information obtained in this study may be published in scientific journals or presented at scientific meetings but these data will be reported as aggregated data and any direct quotes from you will remain anonymous. You and your child's identity will be kept strictly confidential. In some situations involving danger and/or risk of imminent harm to yourself or others, suspected child abuse, and certain legal situations (e.g., a court subpoena of records), the investigator will be required to disclose this information for the protection of those involved.
Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Alternatively, you may contact the investigators at the phone numbers below. Please contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your rights as a research participant.

Freedom to Withdraw:

Participation in this study is completely voluntary. You may refuse to participate or withdraw from this study at any time without risk to your child’s current preschool participation or your participation in the Getting Ready project. Your withdrawal or refusal to participate will not negatively affect your relationship with the Getting Ready project investigators, the current study’s investigators, or the University of Nebraska-Lincoln, or in any other way result in receiving a penalty or loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy:

YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS RESEARCH STUDY. YOUR SIGNATURE CERTIFIES THAT YOU HAVE DECIDED TO PARTICIPATE HAVING READ AND UNDERSTOOD THE INFORMATION PRESENTED. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

_____ I consent to participate in the Family, Teacher, and Coach Experiences of the Getting Ready Process study.

_____ Check if you agree to be audio-recorded as part of the research.

__________________________________________________  ______________________
Signature of Research Participant                      Date

_____ I do not provide consent to participate in the Family, Teacher, and Coach Experiences of the Getting Ready Process study.

Name and contact information of investigators:

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