

HOW DOES FREE-PLAY ACTIVITY CHOICE PREDICT ACADEMIC  
AND SOCIAL COMPETENCE OF PRESCHOOL CHILDREN WITH DEVELOPMENTAL  
DELAY AND PRESCHOOL CHILDREN WITHOUT DISABILITIES?

By

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To my husband, Ken, my children, Nicholas, and Michaela and my canine companions, Grace, Molly, and Lilly who sacrificed many hours of play as I worked on this project.

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Abstract of Dissertation Presented to the Graduate School  
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The purpose of this study is to examine the impact of free-play activity choice during free-play in preschool on the concurrent and later academic and social competence of children with developmental delay and children without disabilities. The participants consist of children in two age cohorts, ages 4 and 5, respectively, at the start of the PEELS study in 2003-2004. Among the 148 participants, 65% were male and 35% were female, 51% were White, 28% were African American or Black, 16% were Asian, and 6% were American Indian or Alaska Native. The relationship between free-play activity choice and social and academic competence was tested through regression analyses and multivariate analysis of variance. The relationship between free play activity choice and data on social skills and problem behaviors from the Preschool and Kindergarten Behavior Scales and the Social Skills Rating System, data on temperament, and data on achievement as measured by the Woodcock Johnson Tests of Achievement, and data on receptive language as measured by the Peabody Picture Vocabulary Test was examined.

Among children with developmental delay, free-play activity choice among preschoolers is related to social cooperation skills, social interaction skills, and social independence skills, externalizing and internalizing problems in preschool, and social independence skills and internalizing problems in kindergarten. Among children with developmental delay and problem behaviors, free-play activity choice during preschool is related to receptive vocabulary skills in preschool and kindergarten and applied problem solving skills in 1<sup>st</sup> grade. Among children without disabilities, free-play activity choice during preschool is related to internalizing problems in preschool, receptive vocabulary skills in kindergarten, boys' social skills in 1<sup>st</sup> grade, and boys' problem behaviors in 1<sup>st</sup> grade.

The results from this study may aid early childhood educators and centers by recommending the provision of developmentally-appropriate play materials and activities, and alternative academic outcome measures for preschool children with developmental delay. The results from this study may extend our knowledge of the impact of problem behaviors exhibited by children with developmental delay or those at risk of developmental delay, and extend our knowledge of play assessment and play intervention.

## CHAPTER 1 INTRODUCTION

### **Importance of Play as an Intervention Activity**

The importance of play as a context for intervention has been strongly supported. Play is considered a primary activity in which young children naturally learn and practice emerging skills (Casby, 2003; Morrison, Sainato, Benchaaban, & Endo, 2002). For example, play provides the context in which a young child's social, emotional, communicative, and behavioral competencies are developed and become integrated and refined. Although cognitive, speech, and language delays often seem to be the most salient concerns for many parents of young children who display disabilities, deficits and delays in social skills also constitute concerns and may become a focus for interventions. Intervention models to promote social skills training have been developed. For example, the Learning Experiences: An Alternative Program for Preschoolers and Parents (LEAP) model for preschoolers with autism (Strain & Hoyson, 2000) exemplifies this focus. Alternatively, discrete trial methods can be integrated in ongoing classroom activities to promote child engagement (McBride & Schwartz, 2003).

Considerable scholarship discusses the successful inclusion of high-quality classroom practices, including those that combine developmentally appropriate practices with individualization based on the child's unique characteristics (Buyse, Sinner, & Grant, 2001). However, scholarship on play activities of young children who display developmental delays is meager. Increased scholarship on this topic could inform practice by helping interventionists understand more fully how impairments in young children may interfere with their normal development and full inclusion in society. For example, the nonsocial play of children with delays can be characterized in a

manner similar to that of typically developing children (Guralnick, Hammond, & Connor, 2003). Focused teacher behaviors or environmental manipulations may be applied strategically when specific peer interaction patterns limit a child's full participation in group settings (Guralnick, 2005).

### **Intervention Designed to Address Risk and Protective Factors**

Children's early appearing biological vulnerabilities such as unpredictable temperament, low positive affect, fussy, and irritability increase their risk for normal cognitive and behavioral outcomes when children are exposed to ongoing disadvantage, including decrements in the quality of the caregiving environment (Jaffe, 2007). These findings are consistent with data from studies of low and middle income children that indicate caregivers' efforts to speak and read to children and to be responsive to children's role play, vocalizations, and exploration of objects can promote children's language growth (Jaffee, 2007). Even though children who experience chronic adversity in the home environment generally manifest more persistent impairments, there is little support for the belief that the first three years of life constitutes the only period for cognitive and socioemotional development (Jaffee, 2007). Effective research-based interventions offered in preschool settings may promote academic and/or socioemotional skills in 3-5 year olds (Jitendra, 2007; Kern, 2007).

Previous studies seemingly have not examined preschool activity choice during free-play in reference to their later school achievement. Research utilizing data from the Pre-Elementary Education Longitudinal Study (PEELS) may help us to identify problem behaviors, social skills, and academic competence in preschool through observation of play and to develop early intervention through play.

## **Purpose**

The purpose of this study is to examine the relationship of free-play activity choice during free-play in preschool and the concurrent and later academic and social competence of children with developmental delay and children without disabilities. This study is intended to identify the relationship of free-play activity choice on academic and social competence across age cohort by gender and disability. The participants consist of children in two age cohorts, ages 4 and 5, respectively, at the start of the PEELS study in 2003-2004.

Data from the PEELS Early Childhood Teacher Questionnaire provide information on activities during free-play. Data from the Woodcock Johnson Tests of Achievement provide information on academic competence and data from the Peabody Picture Vocabulary Test provide information on receptive language. Data from the PEELS Computer Assisted Telephone Interview Parent Questionnaire provide information on children's gender, ethnicity, age, disability, and temperament.

Data from the Early Childhood Teacher Questionnaire indicating the most frequent play activities constitute the independent variables. Data from the following scales constitute the dependent variables: the Social Cooperation Scale, Social Interaction Scale, Social Independence Scale, Externalizing Problems Scale, and Internalizing Problems Scale ratings from the Preschool and Kindergarten Behavior Scales, the Social Skills Scale and the Problem Behavior Scale ratings from the Social Skills Rating System, the Letter-Word Identification, Applied Problems, and Quantitative subtests from the Woodcock Johnson III Tests of Achievement, and the Peabody Picture Vocabulary Test scores.

The covariates of disability, age cohort, and gender are assessed in order to determine if relationships between social competence, problem behaviors, and academic competence differ by disability or gender in the same or different cohort. Total household income and type of disability constitute potentially confounding variables and are controlled in this study.

Multivariate regression analyses, factorial MANOVA, are used to assess the relationship of activity choice on social competence and academic competence. Data from different age cohorts in the PEELS longitudinal study are compared in order to assess for maturation effects.

## CHAPTER 2 LITERATURE REVIEW

### **Play**

Play provides a natural medium for learning. Through play activities children acquire information about objects and people, practice new skills, create situations they can deal with and control, gain confidence in their own abilities, and learn to solve problems (McLoyd, 1980; Yawkey & Pellegrini, 1984).

#### **Definitions of Play**

Play is defined as 1) dramatic work or performance, 2) recreation, 3) fun or jest, or 4) freedom of movement (<http://m.dictionary.com/home>). Play generally is defined as observable behaviors occurring in describable and reproducible contexts (McCune-Nicolich, & Fenson, 1984). Play differs from other behaviors in that it is 1) pursued for its own sake, 2) focused on means rather than ends, 3) directed toward exploring objects in order to do something with the objects, 4) not considered a serious endeavor because there is no external purpose with a required outcome, 5) not governed by external rules, and 6) characterized by active engagement of the player. Play also can be defined as being pleasurable, spontaneous, flexible, and a natural product of physical and cognitive growth (Garvey, 1977; Piaget, 1962). In Western societies, the definition of play has evolved from simply being a method to decrease extra energy to processes that enhance all areas of development (Ellis, 1973).

#### **Structure or Content of Activity**

Play also can be described by the structure or content of activities (Piaget, 1962; Smilansky, 1968). These categories include functional, exploratory, constructive, and dramatic play. Functional play involves activities that are performed for the enjoyment of

the physical sensation they create. These typically involve simple and repetitive motor activities. Exploratory activity involves focused attention on an object in order to obtain information about its specific physical properties. A child engaging in exploratory behaviors may examine an object in his or her hand, look at something across the room, or listen to a sound. Constructive play involves manipulating objects in order to construct or create something. A child engaged in constructive play may draw pictures, paint, or build with blocks. Dramatic play involves an element of pretense and includes the child taking on the role of someone else. A child engaged in dramatic play may carry out a pretend activity or attribute life to inanimate objects (Gitlin-Weiner et al., 2000).

Researchers attempting to refine the definition of play generally focus on one or more of the following seven process variables: 1) the types and numbers of toys used, 2) the context of play, 3) the participants involved, 4) the sequences of play themes, 5) the space used, 6) the style with which the play activities are performed, and 7) the degree of effort invested in the play (Gitlin-Weiner, Sandgrund, & Schaefer, 2000) (Table 2-1). Knox (1974) suggests four dimensions of the play process as important: 1) space management, 2) material management, 3) imitation, and 4) participation.

### **Types and Numbers of Toys Used**

Children begin productive play when they use play materials simply. They construct and create things as they learn about their physical world. Around age 4, children began to use play materials in more conventional ways during reproductive play (Butler, et al., 1978). Through this type of play children display an understanding of social as well as physical realities. As children age, their play increasingly involves pretense (Howes, 1992). By age 5, most children can quickly set up elaborate pretend play, making almost anything stand for almost anything else (Goncu, 1993). Children

may play alone or beside others while using dolls, blocks, dishes, and other materials for social role play. Some children engage in playing dress-up for a long time without proceeding to any enactment in role play. Other children display a need to wear a particular hat or cape, perhaps as a way to keep them safe in stressful situations such as in a play group or nursery school.

Sensory and creative play occurs through the use of natural materials such as sand and water, mud and clay, in painting and finger painting, in singing and music, and in play with words and sounds. Physical play involves exercising new skills as children become able to run, climb, hop, dance, swim, ride a trike, and throw, kick, and catch a ball. Physical play often is incorporated into energetic social pretend play and informal games. Exploratory play involves investigating and making use of objects and solving play problems.

### **Context of Play**

Dramatic play with other children develops between ages 2 and 3. At first, associative play normally occurs, with each child involved in his/her own imaginative theme and engaged in collective monologue, although there may be a play object in common that results in some joint activity (Isaacs, 1939). At times, several children seemingly are playing together. Sociodramatic play occurs when they begin to play out roles with another child. The child increasingly gains pleasure interacting with his peers.

### **Play Participants Involved**

Children's cognitive and language development as well as their ability to regulate their emotions exert an increasing role in the complexity of their play. The number of children who can be included in play at one time also expands. At ages 2 and 3, working out play themes with just one other child is challenging. By age 5, children

often can perform three or more play themes at a time, keep track of what roles all children are playing, how their roles fit the overall theme, and negotiate conflicts to decide together what is and is not supposed to happen next (Garvey, 1990).

Experiences interacting with peers also may be important in developing play complexity (Holmberg, 1980; Howes, 1988; Mueller & Brenner, 1977). Results from these three studies suggest frequency of play group experiences is associated with more frequent and complex peer interactions among toddlers. In the Holmberg study (1980), children were observed during indoor play where they were free to choose their play activities and the opportunity to interact with teachers or peers. In the Howes study (1988), difficulty with peers was assessed through teacher ratings rather than peer ratings and reflected more frequent and complex peer interactions (Howes, 1988). In the Mueller and Brenner study (1977), play groups were formed with previously unacquainted males, teachers were present, and play group activities did not involve free play yet frequency with play groups resulted in more frequent and complex peer interactions.

### **Sequence of Play Themes**

Play themes begin to include movement between reality and fantasy (Nash & Schaefer, 2010). In pretend play, themes emerge concerned with the various roles that people play outside as well as inside the family. These themes occur in solitary play and increasingly become more frequent in social play with parents, siblings, children outside the family, and children of a similar age in a playgroup or nursery. Peller (1964) suggests that fantasy may be social in its origin (e.g. several children putting their heads together) and usually is social by way of content, dealing with several people in various roles. The implementation of play may be either solitary or social; however, contact

between co-players is imprecise. A fantasy may become lost, with players never realizing the difference (Peller, 1964).

The use of symbolism in pretend play becomes elaborate as invented people and objects become incorporated into the child's development of a complex imaginary theme. A theme may be sustained, with children changing themes rapidly as their thoughts go off on a tangent as they play. For example, a child may say she is a mother bathing a baby, holding a doll in a box full of imaginary water and using a brick for soap. Moments later the box is a table and the brick is food for her family.

By playing the roles of others, children start to understand how others may feel and enable them to acquire a better idea of themselves and their own role and identity in the family. Children engaged in both solitary and shared pretend play can express their feelings and anxieties safely. For example, some children have imaginary friends who are important as companions or scapegoats to represent their split-off bad selves as the age of guilt begins. Cooperative pretend play usually begins with domestic themes in which the players take different family roles. Packing, going on a trip or holiday, repairing and telephoning are common, along with treating and healing (Garvey, 1977).

### **The Space Used**

Play is assimilative as children make sense of the events in their lives. For example, two boys who recently moved to a new house spent all morning shifting the entire contents of the play group home to the far side of the room. Children often construct dens with any available materials, disappearing inside to pretend or giggle together.

## **Styles of Play Activity**

**Practice Play.** Sensorimotor forms of play occur early, in infancy until about age two. These forms are sometimes called practice play because children repeat actions without any reference to any recognizable outcome (Butler, Gotts, & Quisenberry, 1978). Children at this stage of play explore and engage in simple motoric actions, imitate them, and repeat them. They explore with all their senses and gain pleasure through their actions. Children who display developmental delays generally display more of this play than those who do not display delays (Yawkey, Dank, & Glosenger, 1986).

**Make-Believe Play.** At about age two children move away from simple repetitive motoric action and begin to use simple play materials to satisfy their own purposes. This stage is characterized by make-believe play. Children pretend and engage in dramatic and sociodramatic play. They move from solitary play to social role play in which they can cooperate with several other children. As children move through this play stage, their fine motor and gross motor coordination improves, language development is rapid, social skills increase, and the basis of critical and divergent thinking emerge.

## **Degree of Effort Invested**

Compared to children who do not engage in socio-dramatic play (e.g. enactments of familiar everyday themes), those who do generally have more developed language and social skills together with more empathy, imagination, and a subtle capacity to infer what others mean. These engaged children also are less aggressive and display more self-control and higher levels of thinking (Miller & Almon, 2009).

This study focuses less on functional play and more on exploratory, constructive, and dramatic play of children during child-directed free-play within the preschool setting

(i.e. utilizing Piaget's definition of play based on structure or content). However, due to the developmental age of some study participants, functional play is included. Viewed through the lens of Gitlin-Weiner and Sandgrund, and Schaefer's scholarship, this study focuses on two of the seven process variables: types and numbers of toys used and the context of play.

### **Types of Free-Play Behaviors**

Free-play behavior can be either child-directed or adult-directed, social or nonsocial. Preschool children normally engage in both social and nonsocial free-play behaviors.

The social participatory component of play was observed and studied by Parten (1932). She observed the social and nonsocial interactions of preschool children in nursery school settings over a nine-month period. Observations were made while children were in a group free-play context both indoors and outdoors. Parten derived five categories of social participation: unoccupied, onlooker, solitary, parallel, and group.

Unoccupied behavior is characterized by a marked absence of focus or intent. The unoccupied child is not playing and instead may stare blankly into space or wander around aimlessly.

The onlooking child watches the activities of others and does not attempt to enter into the activities. Onlooking behavior differs from unoccupied behavior in that onlooking behaviors involve the observation of another child or group of children and unoccupied behavior does not.

Solitary play occurs when the child plays apart from the other children at a distance greater than three feet. The child plays alone and independently with toys that

differ from those used by the children within speaking distance. The child is focused on his or her own activity and pays little or no attention to any of the children in the area.

Parallel play occurs when a child plays independently next to yet not with other children. The activity often brings the child within three feet of other children. While engaging in his or her own activities, the child is aware of the other children and may refer to their play.

Group play occurs when a child interacts with other children. The activity has a goal or purpose and promotes a sense of belonging to the group, with one child's efforts supplemented by those of others (i.e. division of labor).

This study addresses both the nonsocial and social child-directed free-play activity choice of children with and without disabilities. It does not address social participation within play activities.

### **Gender, Culture and Play**

Body identity and sexual differences are reflected in play constructions (Erikson, 1950). Boys tend to build towers and to make models that move and perform an activity. In contrast, girls tend to create quieter scenes, typically an enclosure with an entrance. Erikson also noted that children's choice of play material depends on what is available in the child's culture as well as on the skills a child had developed. Both boys and girls become involved in domestic play, and both genders may play the mother's role. Playing the father's role often is more difficult because this role is less known.

Roles are less differentiated during informal games of running, chasing, or hiding, although there may be a leader and followers. These games are played mostly by boys and often have symbolic themes such as monsters, cowboys and Indians, Batman, Superman, the A Team, and Mutant Ninja Turtles. The underlying game is the same, a

mutual fantasy, often to do with preventing threat (e.g. killing the monster or putting out a fire). The activity may reflect the need to feel autonomy and control at an age when boys are establishing sex role identification yet lack power in their own families (McMahon, 1992).

Crowe (1973) exemplifies the beginning of coordination in her description of two children from different social backgrounds playing in a playgroup. The boy announces, "I'm making stew for dinner" and the girl responds, "All right, while you do that I'll just go to Harrods for the canapés" (Crowe, 1973, p.109).

### **Theoretical Perspectives of Play**

**Psychoanalytic Perspective.** Although Freud's therapeutic efforts focused on adults, he also recognized the importance of children's play. Freud's writings on psychosexual development encouraged the scientific community to focus attention on early childhood development and child behavior as a way to understand the development of adult personality. Through his analysis of his early cases, such as Little Hans, originally reported in 1909, Freud (1950) broadened our understanding of children's overt behaviors as reflecting unconscious concerns and conflicts. Later, Freud expanded these ideas by describing play as a specific means of mastery. However, he seemingly did not use play as a direct treatment modality. He stated, "We see that children repeat in their play everything that has made a great impression on them in actual life" (Freud, 1961, p.147). Years later, through the work of Melanie Klein (1955, 1960), Anna Freud (1946, 1966), and others, play and play materials became incorporated into the effective therapeutic treatment with children.

**Psychosocial Perspective.** Using his theory of psychosocial development as a foundation, Erikson described play as an expression of a combination of forces,

including individual development, family dynamics, and cultural expectations. He proposed that, in order to evaluate play, the observer must have an idea of what the children of a given age in a given community are apt to play; only then can the observer decide whether the unique meaning of the play surpasses the common meaning. “An understanding of the unique meaning of play requires . . . careful observation of the play’s content and form, as well as accompanying words and visible effects” (Erikson, 1950, p. 219). Erikson likened play to Freud’s notion of dreams. For Erikson, play became the royal road to the unconscious in children. He believed that only during play were children’s censors relaxed, thus allowing free-flowing fantasy to blossom in a manner similar to that attributed by Freud to the concept of dreams.

**Developmental Perspective.** From the 1930s until the 1960s, developmentalists attempted to describe and classify children’s play within a normative framework. For example, Piaget’s theory of cognitive development suggests that fantasy and make-believe play are influenced by children’s symbolic thinking. Using extensive observations of his own children as a basis, Piaget (1952) formulated a complex system of classifying play and games by stages of development. He suggested that changes in play reflected intellectual development as well as increased general competence. Play also provided opportunity for children to practice what they already had learned. Piaget supported the use of play as an important way in which professionals can understand children intimately. He suggested that conversations with children were more productive when they were related to activities involving concrete materials and when children were talking about play actions just performed (Piaget 1952).

This study borrows from the developmental perspective that changes in play reflect academic and social competence and examines the gender and cultural influences on activity choice during child-directed free-play in the preschool setting. Recommendations pertaining to assessment and treatment discussed later in the study borrow from the psychosocial (i.e. observe what the children of a given age in a given community are apt to play and decide whether the unique meaning of the play surpasses the common meaning of the play) and the psychoanalytic (i.e. children's overt behaviors reflect unconscious concerns and conflicts; children repeat in their play everything that has made a great impression on them in actual life) perspectives in addition to the developmental perspective.

### **Developmental Stages of Play**

Piaget (1962) devised a theory to explain the origins and development of play in children that relates play to the development of thinking and knowing. He also noted the cognitive aspects of social and emotional growth resulting from play. Children progress through specific stages, ranging from sensorimotor practice play to symbolic play to highly complex social games with rules. Play during infancy involves joint attention and imitation; play during toddlerhood involves sustained attention, intentionality or goal-directed behavior (Bjorklund, 2005). Children ages 2 to 6 years move from a sensorimotor or practice play stage to symbolic play (Piaget, 1962). Children's social skills expand dramatically as they move from infancy (i.e. ages 0 to 24 months) through toddlerhood, and into the preschool years (i.e. ages 3 to 5 years). Children progress from parallel play around age 3 to more cooperative and social play at age 4. Children with intellectual, motor, language, perceptual-motor, and social delays move through

these same stages yet at a slower rate and pace (Yawkey, Dank, & Glosenger, 1986) (Table 2-2).

### **Etiology of Childhood Play Behavior**

What children learn as infants and toddlers helps establish a set of abilities, orientations, and expectations about how things and people will behave as well as beliefs and feelings that affect how they select and process new experiences. Infants who learn to engage their parents in play and manipulate objects to do what they want them to do believe in their ability to affect the world around them. Toddlers who learn that they can depend on people for comfort and that people will help them when they are distressed are more likely to approach others with empathy and trust than toddlers who have had their worries and fears dismissed or belittled. Preschoolers who have been cuddled by caregivers and had books read to them before going to bed are more likely to enter kindergarten with a keen interest in reading. Children who have missed these experiences may have a difficult time recapturing them later in life. In short, a good start in life increases the odds of greater adult competence (National Research Council Institute of Medicine, 2000).

### **Problems in Play and Pathology**

Play is critical to a child's physical and cognitive development. From play, children develop more cooperative and long lasting interactions; greater self-regulation; increased memory development, including abstract thinking and meaning; storytelling and story memory; more complex cognitive skills (e.g. language and vocabulary); greater imaginative and flexible thinking; more scientific, mathematical, and social discoveries; and greater persistence (Gitlin-Weiner, et al., 2000).

Erikson was one of the first to highlight the concept of play disruption. He noted that, while engaged in play, children closely approach the feelings experienced during anxiety-laden events in their lives, resulting in discomfort that often results in their needing to cease play. At the time of play disruption, effective defenses may disintegrate, thus limiting a child's ability to organize and express aroused feelings or ideas. Thus, play disruption can become a diagnostic marker of those issues central to children's emotional needs and level of functioning (Gitlin-Weiner, et al., 2000).

Pathological play expresses a specific form of psychopathology that includes a range of destructive behaviors including perversions, factitious disorders, personality disorders, and eating disorders (Jureidini, 2000). Play becomes pathological when it deviates from healthy play in one or more of three characteristics: the relationship between playing and reality; the player's experience of the play; and the relationship of the player to the objects of play (including self and other people as well as inanimate objects). Pathological play avoids reality through a preoccupation of pretense that supersedes a child's basic needs. In other words, play is deemed pathological when a child's pretend play becomes excessive by replacing the child's needs for shelter, food, and sleep.

During pathological play, some forms of violence may appear. Violence commonly is viewed as a hostile attack aimed at a particular victim. However, violence during play may be conceptualized as reckless disregard for the well-being of an object or child. The concept of pathological plays offers a strategy for exploring the developmental origin of poorly understood behaviors, such as personality disorder (Jureidini, 2000). For example, mothers who maltreat children are less involved with and

more negative toward their children, who in turn engage in less play than their non-maltreated peers (Alessandri, 1991, 1992; Cicchetti & Lynch, 1995). Play in which maltreated children engage is likely to be thematically and affectively constricted, less socially and cognitively complex, and more likely to show routine stereotyped use of play material.

The importance of play in human development may be underestimated in child psychology and psychiatry. Jureidini (2000) suggests clinicians should consider the concept of pathological play in order to better understand and manage the care of children who display more challenging behaviors and diagnoses. Piaget's (1951) concept of compensatory play came close to reflecting psychoanalytic thinking in his models of play. Compensatory play involves the child doing things normally forbidden or pretending that something has happened that has not really occurred. Such play may be a cathartic neutralization of fear or anger or it may be a wish fulfillment. For example, a child jealous of a younger sibling may hit a doll or, in role reversal, play at being the baby. By limiting compensatory play, children facing difficult or unpleasant situations may relive and come to accept them. For example, the child who is ill or injured may play that a doll also is ill or injured. In anticipatory play, children play out fears of the consequences of refusing to do what is expected of them. The child constantly told to be careful may have dolls that 'forgot' and encounter harm.

Erikson asked a number of 4 and 5 year-old children to make something with blocks and toys. His observations lead him to conclude that the themes presented in these play constructions may be the repetitive working through of a traumatic

experience. They also may express a playful renewal of the traumatic experience (Erikson, 1972).

These different possibilities warn the observer that, although a child's play may be a direct imitation of something that has happened, this is not always true. One should not assume a child playing the role of a mother and hitting a doll accurately reflects that the child's own mother does this. In contrast, the child playing mother is demonstrating the child's own immature response as to how to cope with a baby or their own anger and jealousy of a younger sibling.

Preschoolers, ages 3 to 5 years, often struggle with the difficulty of separating fantasy from reality. Television shows, DVDs, video games, and stories in books may be experienced as real events. The stories that children invent, or their imaginary companions, sometimes take on a mistaken reality. Even then the content of children's fantasies reflects their own experience or feelings. Children do not fantasize about events that they have not experienced (Pithers, 1990). For example, although young children have sexual feelings, they cannot enact sexual behavior in play unless they have either experienced them or witnessed them, whether directly or on DVD, photograph or other medium. The detail of the child's enactment or description often will indicate whether the child has actually experienced the behavior or merely witnessed it.

Fantasy and reality rarely are blurred in every part of a child's mind, even at this young age. A child with an imaginary companion who feels quite real to the child is as likely as any other child to be able to give an accurate description of what members of the family did this morning. However, because adults are such powerful figures, children under age five sometimes may agree with a suggestion an adult makes, although they

usually are able to resist suggestions that go completely against their experience. On the other hand, they have not learned to evade and are likely to answer an open question with the truth as they perceive it.

### **Role of Play in Assessment and Treatment**

Parton (1932) was one of the first scholars to attempt to devise a structured assessment for studying normal social development in play. The resulting assessment was divided into six categories: 1) unoccupied behavior, 2) solitary independent play, 3) onlooker behavior, 4) parallel activity, 5) associative play, and 6) cooperative play. The Parton scale has undergone a few revisions yet continues to be used in many research projects. This work became the precursor to the idea of using the assessment of play within a diagnostic format.

Psychologists and psychiatrists became increasingly sophisticated in their application of play in therapeutic treatment and in their understanding of its role in children's development. Those contributing to the literature included Ginott (1964), Peller (1964), Axline (1969), Moustakas (1973), and Despert (1976).

The importance of play and its contributions to the intellectual, social, psychomotor, and emotional growth of children have been recognized during the last thirty years (McLoyd, 1980, Yawkey & Pellegrini, 1984). Play behaviors and patterns of play are believed to reflect various aspects of a child's inner life, developmental level of functioning, and social and academic competence (O'Connor & Ammen, 1997; O'Connor, 1991). Characteristics observable in play include ego development, cognitive style, adaptability, language functioning, emotional and behavioral responsiveness, social level, moral development, intellectual capacity, coping styles, problem-solving techniques, and approaches to perceiving and interpreting the surrounding world.

This study seeks to examine the academic, social, and emotional growth of young children based on the activity chosen most frequently during child-directed free-play. Characteristics to be assessed include emotional and behavioral responsiveness, social level, intellectual capacity, and to some extent, problem-solving techniques.

## **Developmental Delay**

### **Definitions of Developmental Delay**

According to the 1997 Individuals with Disabilities Education Act and the Individuals with Disabilities Education Improvement Act of 2004, the definition of a child with a disability is a child with mental retardation, hearing impairments, speech or language impairments, visual impairments, serious emotional disturbance, orthopedic impairments, autism, traumatic brain injury, other health impairments, or specific learning disabilities together with a child who needs special education and related services. The phrase 'child with a disability' for a child ages 3 through 9, at the discretion of the state and the local educational agency, may include a child experiencing developmental delays and needing special education and related services. Developmental delays defined by the state can be in one or more of the following areas: physical development, cognitive development, communication development, social or emotional development, or adaptive development.

The Center for Disease Control (CDC) defines developmental disabilities as “a diverse group of physical, cognitive, psychological, sensory, and speech impairments that begin anytime during development up to 18 years of age” (Bailey, et al., 2004). The classification of developmental disabilities ranges from mild developmental delays and disorders to more serious developmental disorders such as mental retardation/intellectual disabilities, cerebral palsy, and autism spectrum disorders.

Further, developmental disabilities often are subdivided into numerous sub-types, each with varying intensity of symptoms, albeit with considerable variation (Table 2-3).

### **Prevalence of Developmental Delay**

According to the Center for Disease Control, one in six children in the United States is diagnosed with a developmental or behavioral disability. Whether a child has a developmental delay or disorder, early identification and intervention are essential for achieving the best possible outcome. Although early identification of children with developmental problems such as Down syndrome or Spina bifida is an efficient and rapid process, the identification of children with less obvious delays and disabilities can be challenging for both pediatricians and parents, in part, because their nature, presence, and severity become obvious only gradually over time.

Mental retardation/intellectual disability is the most common developmental disorder. According to the Center for Disease Control, approximately one out of every 100 school children in the United States has some form of mental retardation/intellectual disability (<http://www.cdc.gov/ncbddd/dd/mr3.htm>). Cerebral palsy is the second most common developmental disorder, followed by autism spectrum disorders (<http://www.cdc.gov/ncbddd/dd/ddcp.htm>).

### **Diagnosis of Developmental Disabilities**

Prenatal screening or the observance of problems during pregnancy may indicate the possibility of disability even before a child is born. For others, the discovery of disability occurs at or shortly after birth due to prematurity, problems with labor and delivery, or the presence of obvious impairments not detected by prenatal screening efforts. Most parents give birth to children who they and their physician initially consider

to be normal. The later discovery of the presence of disability occurs by observing the child and making sense of emerging concerns about health, development, or behavior.

Pediatricians rarely use developmental or behavioral screening tests and instead generally prefer to rely more on surveillance of development within the context of normal health care provision. As a result, pediatricians are more likely to identify and refer children for special services who are 3 or more years old and those with more severe disabilities. The use of developmental or behavioral screening tests can help pediatricians identify developmental disabilities between the ages of 0 and 3 and to refer children for special services at an earlier age.

This study seeks to explore the possibility of utilizing play observation as a developmental screener to assist caregivers, school personnel, and medical personnel in the identification of developmental or behavioral disabilities, and social and academic competence. Diagnostic criteria that may be observable through play include emotional and behavioral responsiveness, self-regulation or social independence, problem-solving ability, social cooperation, social interaction, flexibility, persistence, memory, abstract thinking, language, vocabulary, and mathematical skills (Gitlin-Weiner, et al., 2000).

### **Play Behavior of Children with Disabilities**

All children play regardless of age or delay. Observations of play behaviors of children with disabilities may shed light on the nature of the disabilities. Knowledge as to whether exploratory and representational abilities are specifically impaired as a result of a developmental disorder may be important since exploratory (i.e. obtaining visual or auditory information about the physical properties of an object) and representational (i.e. using familiar objects in appropriate ways to represent their world) competencies vary across developmental disabilities. Moreover, children with higher levels of severity

of disabilities have limited capacities to express themselves verbally. Play observations often provide more information than would be possible with sole reliance on verbal exchange. Finally, play observations may be of use when differentiating two or more diagnostic conditions (Sigman & Sena, 1993).

The nonsocial play of young children with and without developmental delays in a playgroup setting was investigated (Guralnick, Hannond, & Connor, 2003). The nonsocial play of children with delays was found to be similar to that of typically developing children. Guralnick (2005) suggests that teacher interventions or environmental manipulations can be applied strategically in a playgroup of children with and without developmental delays when a child's participation in the group is limited by specific peer interaction patterns (Guralnick, 2005). Children who display developmental delay will exert lower forms of symbolic play (i.e. representational competence) than those who do not display delays (Yawkey, Dank, & Glosenger, 1986).

### **Play of Children with Down Syndrome**

Exploratory competence appears to be deficient in children with Down syndrome compared to normal control children matched on chronological or mental age (Vietze et al., 1983). Children with Down syndrome spend more time involved in visual exploration and less time involved in manual exploration of objects. Additionally, children with Down syndrome play with toys less than do other children with and without developmental delays (Brooks-Gunn & Lewis, 1982; Krakow & Kopp, 1983). Thus, these results point to either a deficiency in exploratory competence or a lack of interest in object mastery (Ruskin, Mundy, Kasari, & Sigman, 1992).

Representational competence abilities in children with Down syndrome appear to be commensurate with their general cognitive level (Baron-Cohen, 1987; Beeghly,

Perry, & Cicchetti, 1989; Hill & McCune-Nicolich, 1981; Motti, Cicchetti, & Sroufe, 1983). However, some differences exist in the representational play of children with Down syndrome when compared to mental-age-matched controls. The symbolic play of children with Down syndrome was compared to mental-age-matched controls and found to have lower average scores on play scales, possibly because these children tended to repeat the same schemes more often than did children without mental retardation (Weiss, Beeghly, & Cicchetti, 1985). This perseveration may suggest a disorder in the ways in which children focus on or manipulate objects rather than a disorder in representational understanding.

### **Play of Children with Mental Retardation/Intellectual Disability**

Children diagnosed with mental retardation without Down syndrome display exploratory and representational competencies similar to children without developmental delay and of equivalent mental age (Weiss, Beeghly, & Cicchetti, 1985). In two studies, the play activity duration of children with mental retardation was equal to or longer than children without mental retardation who were matched on mental age. Thus, children with mental retardation appeared to spend at least as much time exploring and playing with objects as children without mental retardation (Weiss, Beeghly, & Cicchetti, 1985).

### **Play of Children with Autism**

The play of children with autism is markedly different from that of children who display developmental disabilities. In general, studies of children with autism focused on representational competence rather than exploratory competence. The few studies that focus on exploratory competence generally report less manual exploration of objects in naturalistic settings among children with autism. However, the nature of the setting is

important. In unstructured situations, children with autism frequently explore objects less than control participants (Hermelin & O'Connor, 1970; Kasari, Sigman, & Yirmiya, 1992). In structured situations, created by parents, experimenters, or teachers who actively encourage object exploration by limiting the space in which the child can move and by handing objects to the child, object exploration increases and becomes equivalent to that displayed by children with and without mental retardation of the same developmental level. Doll play is an exception. Adult participation failed to engage children with autism to the same degree as it did in control participants (Sigman, Mundy, Sherman, & Ungerer, 1986).

Early studies of symbolic play in children with autism demonstrated few representational play activities (Tilton & Ottinger, 1964; Weiner, Ottinger, & Tilton, 1969). Researchers from a later study who viewed play from a developmental perspective demonstrated that children with autism engaged in less pretend play than children with and without mental retardation (Wing, Gould, Yeates, & Brierly, 1977). Recent studies have differentiated play more precisely, varied the amount of structure provided for the children's play activities, and found children with autism generally engage in pretend play similar to controls in highly structured settings (Baron-Cohen, 1987; Mundy, Sigman, Ungerer, & Sherman, 1986; Riquet, Taylor, Benroya, & Klein, 1981; Sigman & Ungerer, 1984).

Evidence for a deficit in functional play among children with autism is mixed. One study of 16 children with autism found that they display less functional play (e.g. play performed for the physical sensation it creates) in both unstructured and structured situations when compared to a group of 16 children without mental retardation matched

on mental and chronological age and a group of 16 children without mental retardation matched on mental age (Sigman & Ungerer, 1984). In an unstructured situation in which the child was placed in a room with a variety of toys after a few functional activities had been modeled, the children with autism engaged in less functional play and fewer sequences of three or more related functional activities than the children in the other two groups. Children with autism directed functional play activities to another person or a doll and performed different functional activities less than the children in the other groups. In a structured situation, children were given objects in a toy set one at a time or in a small group of related items by an experimenter who recorded spontaneous uses. The children with autism produced fewer doll-directed functional activities as well as fewer different functional activities.

### **Academic Competence**

Academic competence, as measured by the Academic Competence Evaluation Scales-College (ACES-College) is defined as a multidimensional construct composed of the skills, attitudes, and behaviors of a learner that contribute to academic success (DiPerna & Elliott, 2000). Academic skills are the basic and complex skills that are a central part of academic curricula at the elementary and secondary levels of education. Academic enablers are attitudes and behaviors that allow a child to benefit from instruction.

Knowledge of children's early education has grown substantially due to scholarship on this topic and evaluations of the impact of federal policies on curriculum, instruction, and assessment. Three general historical changes are apparent. First, scientifically rigorous information about children's academic skills (e.g. their literacy and numeracy) is more abundant. This knowledge has been used to establish educational policies that

directly influence classroom practices. Second, we have a better understanding of the critical impact of skills and concepts acquired during preschool and primary grades on children's continued academic success. Thus, early identification and intervention are important for facilitating positive pathways through school. Third, accountability through assessment has permeated educational research at every grade level, with test results used increasingly to validate educational material, methods, curricula, and instruction.

This study addresses the importance of early identification and intervention in order to facilitate academic and social competence. The use of assessment and test results for decision-making in schools is not addressed.

### **Factors Impacting Academic Competence**

Readiness for school, age at school entry, gender, intra and inter-personal characteristics such as the child's temperament, intelligence, self-concept, and the presence of conditions such as attention deficit hyperactivity disorder can have an impact on academic competence. Environmental influences as well as social and emotional skills can impact academic competence.

### **School Readiness**

Several important sources influence children's transition into school. The child's family, preschool experiences, and larger social and cultural context can have a decided impact on school readiness (NICHD-ECCRN, 2005). These sources interact with one another and with a child's biological basis of behavior and shape children's developmental trajectories, beginning before school entrance (Storch & Whitehurst, 2002), including the early emergence of language, literacy, and other foundational skills for learning (Morrison, Bachman, & Connor, 2005; Shonkoff & Phillips, 2000). Children's early schooling experiences are highly variable, in some cases exacerbating the

developmental differences established prior to school entry (NICHD-ECCRN, 2002, 2005; Pianta, Paro, Payne, Cox, & Bradley, 2002). The cumulative impact of the child's family, preschool, social and cultural context results in considerable variability in children's readiness and subsequent trajectories that characterize their academic learning.

Developmental changes occur and personalities emerge as children transition from home through preschool to formal school between ages 3 and 10. Opportunities for learning vary widely in American homes, schools, and communities, thus creating variance that contributes to an ever-increasing range of skill level at every grade level. These diverse and developing skill trajectories, especially for literacy and numeracy, help establish different pathways for children into and through formal schooling.

### **Age at School Entry**

The effects of children's ages at entrance to first grade on their later success was examined in a cohort of urban children who entered first grade in 1983. Demographic, social, and early experience variables served as covariates in the analysis. Older children at entrance did slightly better academically in first grade, primarily in mathematics. Age at entrance and social conduct were unrelated in the first grade. Four years later, age at entrance to first grade had no impact on academic achievement or on type of placement, general education or special education. Socioeconomic variables predicted academic achievement better than age at entrance (Bickel et al., 1991).

### **Gender**

Developmental differences in specific cognitive and social skills may play an important role in establishing gender differences in academic competence (Serbin, et al., 1990). Gender differences in academic competence were examined in a sample of

347 elementary school children (Serbin et al., 1990). Academic competence generally was higher in girls than boys. Girls' higher achievement may be attributable, in part, to their greater responsiveness to social cues and compliance with adult direction. However, compared to boys, they displayed lower visual-spatial skill. These qualities also impact academic success. Access to stereotypic masculine toys and activities at home predicted the visual-spatial ability of both boys and girls. As expected, socioeconomic variables, including mothers' occupation and fathers' level of education, also influenced environmental, social, and cognitive qualities that predict academic competence.

### **Temperament**

Intra and inter-personal characteristics such as a child's temperament is one factor that could impact social and academic and competence. Although most theory and research related to temperament have focused on adult behavior patterns, temperament differences can be distinguished in children as early as infancy. The differentiation of type often begins early in life. Most experts in temperament attribute it to a child's biology and thus is innate (Joyce, 2010; Jung, 1928/1945). Jung characterized an infant's adaptation to the environment, especially his or her quick interaction with objects, as one of the earliest indicators of extroversion. He described introverted children, even infants, as shy, reflective, thoughtful, and fearful of unknown objects (Jung, 1928/1945). Differences also were seen in infant's activity levels, sociability, and emotionality (Buss, 1989). Thomas and Chess (Chess & Thomas, 1984, 1986; Thomas, 1977; Thomas & Chess, 1989) identified three basic temperament styles in infants and toddlers: easy (40% of children they studied), slow-to-warm (15% of children), and difficult (10% of children).

The easy child establishes regular routines, is cheerful, and adapts easily to new experiences. Parents describe these children as contented and easy-going. The difficult child has irregular routines, is slow to adapt to new experiences, and tends to react negatively. The slow-to-warm child is lethargic, wary of strangers, has poor responses to environmental stimuli, displays a negative mood, and adjusts slowly to new experiences. Approximately 50% of slow-to-warm children may experience psychological adjustment problems during their lifespan (Chess & Thomas, 1984; Thomas, Chess & Birch, 1968). Children who exhibited a difficult temperament often also exhibited problematic sleep patterns (Thomas, 1977). Approximately 70% of children with the difficult temperament may experience long-term adjustment problems sometime during their lifespan.

Thomas & Chess (1989) used several behavioral methods to assess children's temperament. Children's activity level was assessed by acquiring information on activity level and obtaining a ratio between active and nonactive items. A child's rhythmicity (e.g. recurring daily pattern) was assessed by recording a child's daily schedule of activities, including sleep, feeding, and elimination. The child's approach or withdrawal was assessed by recording his or her responses to novel stimuli. Approach behaviors were considered positive and withdrawal behaviors were considered negative. The child's adaptability and threshold of response were assessed by recording the child's ability to respond to changing situations and the level of stimuli needed to elicit a response. A child's distractibility and attention span were indicated by the length of time a child concentrates on an activity and how easily competing stimuli interrupted concentration. Intensity of reactions related to the child's energy level was assessed by

recording descriptions of children's behaviors (e.g. crying loudly or finding another toy when a toy was removed). The number of pleasant behaviors and unpleasant behaviors exhibited determined the quality of mood. Thomas and Chess believed this collection of behaviors formed children's temperaments (Thomas & Chess, 1989).

### **Intelligence and Self-Concept**

Interpersonal characteristics such as intelligence and self-concept are factors that can impact social and academic competence. The impact of intelligence and self-concept was examined in children with learning disabilities (LD) in the auditory-linguistic realm. Intelligence was found to have no relationship to the children's learning ability, whereas self-concept predicted patterns of successful achievement in spelling, arithmetic, and written language, and not in visual word recognition. Results support the importance of self-concept as a correlate of academic achievement (Kershner, 1990).

### **Attention Deficit Hyperactivity Disorder**

Conditions such as attention deficit hyperactivity disorder can impact social and academic competence. Sensory-motor, verbal, and cognitive abilities of preschool boys, ages 45 to 72 months, with ADHD-C (combined type) were examined. Results indicated that sensory-motor abilities, fine motor abilities, hand, mouth, and tongue movements, and motor praxis were lower in the ADHD-C group than in the norm group. Lower verbal skills and intelligence among boys with ADHD-C also was identified. Boys with ADHD-C have relative strengths in simple rapid movements, simple auditory memory, and non-motor visual perception. Thus, an examination of sensory-motor qualities in young children who display ADHD-C may be warranted. Teachers and professionals may want to adopt instructional methods that utilize these strengths as well as to recognize that

memory problems may be related to the comprehension of long sentences and visual construction (Iwanaga et al, 2006).

The literature on the prevalence and stability that preschoolers display inattention, hyperactivity, and impulsivity suggests a number of links between early literacy skills and later school achievement (Spira & Fischel, 2005). Few studies have focused specifically on the relationship between preschool ADHD symptoms and achievement. Several explanations for the relationship between preschool ADHD symptoms and achievement are suggested, including an explanation that focuses on the relationship between inattention, hyperactivity, and impulsivity and the acquisition of emergent literacy and language skills (Spira & Fischel, 2005).

Spira & Fischel (2005) proposed four models to account for the link between ADHD symptoms and learning. The first model suggests that behavior problems are a consequence of children's frustration with their reading difficulties. The findings that individuals with reading difficulties and ADHD exhibit the same cognitive deficits associated with ADHD and reading difficulties do not support this first model.

The second model suggests that behavior problems are a cause of reading difficulties. Results of medication outcome studies refute the second model by suggesting that stimulant medications have little effect on cognitive skills associated with academic achievement.

The third model suggests that behavior problems and reading difficulties are neither cause nor consequence of each other but share a common cause. Behavioral genetic analyses support the third model by suggesting that common genetic influences may predispose individuals to both reading problems and behavioral symptoms of

ADHD (Willcutt, Pennington, & DeFries, 2000); however, no studies have isolated a neurocognitive deficit or physiological marker that is a consistent risk factor for both reading difficulties and ADHD.

The fourth model suggests that all of the hypothesized relationships could be active in some sense with bi-directional or transactional influences that represent the relationship between behavior and achievement. This model is supported from the findings of Rowe and Rowe (1992). They suggest that early hyperactivity is associated with continued attentional problems, which negatively impact academic performance. Early hyperactivity is related to continued poor reading, which diminishes academic outcomes. Simultaneously, early literacy problems associated with hyperactivity at an early age are related to later reading problems and attentional difficulties. Based on these findings, McGee et al. (2002) suggest an intervention that addresses both symptoms of inattention and overactivity as well as reading problems be implemented in order to effect significant change in academic achievement.

A study was designed to assess whether children with ADHD and comorbid conditions with similar core profiles differ as a function of comorbidity and gender. Children with ADHD and oppositional defiant or conduct disorder were described as more impulsive than inattentive while children with ADHD and anxiety disorders were described as more inattentive than impulsive. Girls generally were less impaired than boys, particularly on impulsivity. Girls with ADHD and anxiety were less impulsive than girls who only displayed ADHD. In conclusion, children who display ADHD have high levels of inattention, hyperactivity, and impulsivity regardless of comorbidity; however,

differences in symptomology exist as a function of comorbidity and gender (Newcorn, 2001).

Despite the literature supporting the efficacy of stimulant medication in the treatment of attention-deficit/hyperactivity disorder (ADHD), several limitations associated with the sole use of these pharmacological treatments highlight the need for the addition of effective psychosocial treatments to complement its use. Some behavioral interventions, including parent training and school interventions, have acquired the status of empirically validated treatments (i.e. treatments have been studied in clinically controlled trials that consist of an experimental group and a control group). Additionally, social skills training that promotes generalization, intensive summer treatment programs, and educational interventions appear promising in the treatment of ADHD. The chronic nature of impairments exhibited by children with ADHD in multiple domains of functioning often requires multimodal treatments to achieve desired behaviors (Chronis, 2006).

### **Environmental Influences**

Development can be understood as the physical, cognitive, social, and emotional maturation of human beings from conception to adulthood, a process that is influenced by interacting environmental and biological influences together with personal choices. Among environmental influences, the family is likely to have the most profound impact on child development (Kazdin, 1996). Family stability is defined in reference to the degree caregiving practices in a family's environment provide children the consistent and nurturing care they need to thrive. Children in foster care are particularly vulnerable to detrimental outcomes. Because they often are placed into state-monitored care following their exposure to maltreatment, family instability and a number of other risk

factors often compromise their healthy development. Foster children may witness and be victims of family violence or may not have been supervised or cared for in an appropriate manner. They may have been subjected to inadequate and impaired caregiving that results from various parental difficulties, including substance abuse, mental illness, and developmental disabilities (Kazdin, 1996). Most foster children are from impoverished backgrounds, conditions that exacerbate the risk factors they experience. Moreover, children exposed to violent, dangerous, and/or highly unstable environments are more likely to experience developmental difficulties (Kazdin, 1996). Children exposed to violence within their homes experience the most deleterious outcomes. For example, children exposed to physical maltreatment often experience impaired physical health, cognitive development, including academic achievement, interpersonal relationships, and mental health (Kazdin, 1996). Erratic, insecure home environments together with a lack of continuity and constancy in caregiving also are associated with lower developmental outcomes (Kazdin, 1996)

### **Emotional and Social Skills**

Children's emotional and social skills are related to their early academic achievement (Raver, 2003; Wentzel & Asher, 1995). Children who are emotionally well-adjusted have a greater chance of early school success. In contrast, children who experience serious emotional difficulty have a greater risk of early school difficulty (Raver, 2003).

Children who display emotional/behavioral disorders frequently demonstrate deficits in academic performance, have lower graduation rates, and are less likely to attend postsecondary institutions (Lane, Barton-Arwood, & Wehby, 2008). A meta-analysis of 25 studies found a significant mean effect size of -0.69 in academic

achievement between students with and without emotional/behavior disorders (Reid et al. 2004).

Attention and other self-control problems adversely impact children's academic achievement (Duncan et al., 2007). Children who display difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress do less well in school than children who do not display these qualities (Arnold et al., 1999; McClelland et al., 2000; Raver, 2003).

### **Relationship of Play and Academic Competence**

The assumption that an early start on the teaching of phonics and other discrete skills leads to increased academic skills has been questioned and more play-based curricula advocated (Darling-Hammond & Snyder, 1992). For example, during the 1970s, most play-based kindergartens in Germany began to emphasize cognitive development during a wave of educational reform. A comparison of 50 German play-based classrooms and 50 cognitive-based classrooms found that, by age 10, the children who were in the play-based classrooms surpassed others in reading and mathematics and were better adjusted socially and emotionally. They also excelled in creativity, intelligence, oral expression, and in their work ethic. The results of this study influenced the return to play-based methods in German kindergartens.

In Sweden, childhood has its own value and is seen as more than a time of preparation for adult life and future investment. Play is considered highly important in Swedish childcare. The national curriculum for compulsory schools emphasizes play as a means for developing and learning in all children (The Swedish Ministry of Education, 1998). Adults can create possibilities for children through supporting and challenging

them in their development, play, and learning (Bjorch-Akesson & Granlund, 2003; Guralnick, 2005).

The intra and interpersonal characteristic of self-control observed through play has been demonstrated to impact social and academic competence. A longitudinal study of four-year-old children who did and did not delay gratification initially of a toy found that, as adolescents, those who delayed gratification also displayed higher Scholastic Aptitude Test (SAT) verbal and quantitative scores (Shoda, Mischel, & Peake, 1990). In addition, ten years later, parents of children who delayed gratification described their children as more academically and socially competent and more able to cope with frustration and to resist temptation. Parents described these children as more verbally fluent and better able to express ideas, to use and respond to reason, to be attentive and able to concentrate, to plan and to think ahead, and to be competent and skillful. As adolescents, the children who were able to delay gratification were perceived as better able to cope and deal with stress more maturely and seemed more self-assured.

Observing children during play also yields valuable information regarding cognitive and communication development. Cognitive skills associated with problem solving, motivation to master tasks, attention, classification, and sequencing often are displayed during play (Linder, 1993). Children learn to categorize objects by manipulating and exploring them through play and learn about balance as they explore and build with blocks. Children begin to create and think divergently when encouraged to solve problems that arise in play (Yawkey, Dank, & Glosenger, 1986).

Observers can detect children's spontaneous use of eye contact, gestures, and vocalizations during familiar and pleasurable activities. Six language markers (first words, naming words, vocabulary spurts, word chains, nonproductive two-word utterances, and productive two-word utterances) can be observed during play (Ogura, 1991).

Play activities can be pleasurable and self-selected and thus are motivational for the child. Although children, when actively absorbed in play, may not consciously connect an activity with learning, the composite of these experiences add to a child's framework of knowledge and understanding. Play is the child's natural way of learning and working (Yawkey, Dank, & Glosenger, 1986).

### **Social Competence**

The term 'social competence' describes a person's social effectiveness, including a child's ability to establish and maintain high quality and mutually satisfying relationships and to avoid negative treatment or victimization from others (Welsh & Bierman, 2001). The term 'social skills' describes the child's knowledge of and ability to use a variety of social behaviors that are appropriate to a given interpersonal situation, including the ability to inhibit egocentric, impulsive, or negative social behavior. Social competence encompasses social, emotional, and cognitive skills and behaviors needed for children's successful social adaptation. Social competence also includes the child's social skills, social awareness, and self-confidence. Children are likely to be socially competent when they possess and display a repertoire of social skills and are socially aware and perceptive (Welsh & Bierman, 2001).

The early childhood years constitute a critical period for the development of social competence. During the first five years of life, the young child develops the

foundational skills needed to regulate and express emotion, interact and form relationships with others, and express needs and wants (Fox, 2009). These foundational skills impact the child's success in communication and language development, peer relationships, social adjustment, school success, and quality of life as an adult. Social and behavioral competence in young children is highly predictive of a child's academic achievement (Fox, 2009).

### **Factors Impacting Social Competence**

Risk factors in the development of cognitive and social-emotional competence include 1) a history of maternal mental illness; 2) high maternal anxiety; 3) maternal perspectives that reflect rigidity in attitudes, beliefs, values in regard to their child's development; 4) few positive maternal interactions with the child observed during infancy; 5) head of household in unskilled occupation; 6) minimal maternal education; 7) disadvantaged minority status; 8) single parenthood; 9) stressed life events; and 10) large family size (e.g. potential for deleterious developmental effects) (Sameroff, Seifer, Barocas, Zax, & Greenspan, 1987) (Fig. 2-2). Marital discord and divorce are additional risk factors (Cicchetti & Cohen, 1995; Damon & Eisenberg, 1998; Sameroff, Lewis & Miller, 2000). Lower socioeconomic status (SES) effects youth mental health and intellectual achievement. SES effects parenting, parental attitudes and beliefs, family interactions, and availability of institutions within the surrounding community (Sameroff, Seifer, & Zax, 1982).

Economists and sociologists have been interested in the effects of two single risk factors: income level and marital status (Sameroff & Emde, 1989). Although one may believe these qualities have powerful effects on the fate of children, support for this belief is not found when these single variables are considered within a broader

ecological framework as seen in the Philadelphia study (Sameroff & Emde, 1989). Differences in the impact of these two qualities on academic achievement disappeared when a number of other environmental risk factors in each family were controlled (Table 2-4). For example, the effects of financial resources were studied by dividing family income into high, middle, and low-income levels. Additionally, the effect of family structure was studied by dividing the families into two-parent and single-parent families. Among children with the same number of risk factors, academic achievement did not differ for those in rich and poor families or in one or two parent families (Sameroff & Emde, 1989).

Rutter (1979) found that early risk had an adverse effect on academic trajectories during grades 1 through 12. Higher intelligence was not a protective factor for children in higher risk families and was a protective factor for children in low-risk families. Higher intelligence in low-risk families resulted in higher grade point averages (i.e. GPAs). Among four-year-old children, those with lower intelligence in low risk conditions consistently had higher GPAs than children with higher intelligence in high-risk conditions.

A study of preschool children's socio-emotional functioning and mathematical skills found that problem behaviors, including withdrawal, social problems, and inattention were associated with low math skills (Dobbs, Doctoroff, Fisher, & Arnold, 2006). Higher levels of aggressive behavior, including physical aggression, hostility, or threatening acts among preschoolers were associated with lower emergent literacy scores (Doctoroff, Greer, & Arnold, 2006).

## **Resilience**

Children who display resilience also display positive adaptation despite their severe conditions. Over the past three decades, studies of resilience have focused on individual variation in response to risky conditions such as stressful life events (Garmezy, Masten, & Tellegen, 1984; Weist, Freedman, Paskewitz, Proescher et al., 1995), exposure to community violence (White, Bruce, Farrell, & Kliwer, 1998), maltreatment (Moran & Eckenrode, 1992), urban poverty (Luthar, 1999), divorce (Hetherington) and maternal mental illness (Sameroff et al., 1982).

The results of these studies have focused attention on the protective factors that influence stress resistance in children and adolescents. Although earlier studies focused primarily on personal attributes, such as higher intelligence (Garmezy et al, 1984), later research incorporated an examination of protective factors in a social context. For example, three broad sets of variables operate as protective factors in stress-resistant children (Garmezy, 1993): 1) characteristics of the child (e.g. temperament, cognitive skills, and positive responsiveness to others), 2) characteristics of families (e.g. warmth, cohesion, and structure), and 3) the availability of external support systems (Figure 2-1).

**Characteristics of the child.** Socioeconomic status, race, and gender are demographic variables, not behavioral variables. Therefore, an investigation of their influence jointly with psychological qualities may add to our understanding of the interactive effects of environmental qualities and psychological qualities on children's competence. Understanding the qualities that influence children's academic trajectories may help explain why some high-risk youth either catch up or fall further behind their more advantaged peers as they progress through school.

Various personal qualities are considered to be protective factors in children: intelligence and problem-solving abilities, gender (i.e. being female), external interests and affiliations, parental attachment and bonding, early temperament and behavior, and positive peer relationships (Fergusson & Horwood, 2003). In the Philadelphia study (Sameroff & Emde, 1989), children were divided into high and low-efficacy groups (e.g. the young person's ability to solve problems, overcome difficulties, and bounce back from setbacks). Youth who displayed high efficacy were more competent than those who displayed low efficacy.

**Characteristics of families.** Sameroff and Emde (1989) found individual qualities (e.g. income level, family structure, child's efficacy) do not have as powerful effects on children's developmental trajectories when examined within a broader ecological framework (e.g. high-risk environment). Garmezy (1993) suggests that personal attributes, families, and an external support system are present in stress-resistant children.

**External support system.** Sameroff and Emde (1989) examined the relationship between academic achievement and adolescents' mental health, engagement in positive community activities, and involvement in delinquent problem behavior. Children who lived in high-risk conditions and had higher grades had poorer mental health, less engagement in positive community activities, and more involvement in delinquent problem behavior than children living in low-risk conditions with lower grades (Sameroff & Emde, 1989).

In the Philadelphia study, children with high and low-efficacy were matched on the number of environmental risk factors in order to examine environmental qualities.

Difference in academic achievement was greater between youth experiencing high and low-environmental-risk conditions than among youth displaying high and low resourcefulness. Adolescents who displayed high efficacy and lived in high-risk conditions had poorer academic achievement than adolescents who displayed low efficacy and lived in low-risk conditions (Sameroff & Emde, 1989). Thus, children who display low efficacy and live within advantaged families seemingly have a more favorable developmental path than children who live in high-risk conditions and display high efficacy.

### **Attention-Deficit Hyperactivity Disorder**

Attention-deficit hyperactivity disorder (ADHD) affects about 3 to 9% of children in the United States. It is a complex, multi-determined malady that can cause profound difficulty for children, their families, and those in the broader social environment (e.g. educators). A large body of scholarship discusses the use of stimulant medications to treat children with ADHD. This scholarship was summarized in a “review of reviews” in 1993 for the U.S. Department of Education as part of the Individuals with Disabilities Education Act (IDEA) and inspired changes in regulations for the identification and treatment of students with ADHD. Ten critical issues were identified by panels of experts and, based on the literature consensus, views were identified for each topic that provided an evaluation of strengths and weaknesses of stimulant pharmacotherapy (Wigal, 1999).

**Strengths of Stimulant Pharmacotherapy.** The issues identified on the use of stimulant pharmacotherapy to treat children with ADHD include 1) a response rate higher than 70%, 2) effects on diagnostic systems (e.g. immediate decrease), 3) effects on associated features (e.g. decreased aggression/defiance), 4) side effects (e.g.

anorexia, insomnia, tics), and 5) no long term effects demonstrated. Research has indicated that extending the duration by an afternoon dose provides increased efficacy and higher response rates than the standard clinical treatment of methylphenidate given twice per day. The effects of stimulants on behavior were greater than the effects on learning. The consensus that stimulants help to control behavior (i.e. aggression and defiance) was inconsistent with general assumptions about the treatment of Oppositional Defiant Disorder/Conduct Disorder (e.g. clear environmental etiologies). The primary side effects of anorexia, insomnia, tics, and possibly cognitive impairments were considered to be tolerable rather than serious enough to stop treatment. The effects of stimulants appear to persist over time (e.g. 12 months) and across settings when the medication is taken on a chronic basis.

**Weaknesses of Stimulant Pharmacotherapy.** The issues identified on the non-use of stimulant pharmacotherapy to treat children with ADHD include 1) no paradoxical response evident, 2) no effect on higher order processes (e.g. learning/achievement), 3) response cannot be predicted (e.g. not yet demonstrated), 4) widespread clinical use (e.g. controversial), and 5) multimodality treatment (e.g. commonly recommended). Further research is needed to evaluate the hypothesis that paradoxical response to stimulants occurs at the neural level. Over the short term, the immediate effects on academic productivity do not translate into gains in achievement, but over longer periods of treatment, small effects may emerge. Prediction of cognitive, neurological, or genetic response was not reliable (e.g. effect sizes were small due to variation in brain size in the control population, half of ADHD cases do not carry disease-related chromosome markers (e.g. alleles). Prediction of clinical response

identified four independent predictors: high levels of inattention, low severity of the disorder, high IQ, and low rates of anxiety. A consensus about appropriate or inappropriate use of stimulant medications has not yet been reached. Evidence is lacking for the widespread recommendations for multimodal treatment of ADHD.

**Multimodal Treatment of ADHD.** Nathan (1992) argues that medication may help a child's day-to-day functioning; however, its effects are diminished when used alone. The use of multimodal treatment methods (e.g. education, cognitive-behavioral therapy, behavior modification, structural and dynamic therapy) as well as medication are recommended. The use of multiple modalities produces therapeutic benefit greater than the sum of each modality's contribution (Nathan, 1992).

**Recognition of ADHD-Related Symptoms.** In most countries, the majority of children with ADHD are undiagnosed (Sayal, 2006). For example, in the United Kingdom, a major barrier to accessing specialist services exists in the form of limited recognition of ADHD symptoms by general medical practitioners. Most (80%) parents of children with ADHD recognize that their child has a problem although few (35%) construe this in terms of hyperactivity. The impact of the symptoms on key adults, rather than on children themselves, is the best indicator of parental recognition of ADHD-related problems. Parental recognition of problems and the perceived burden on them, rather than on children themselves, largely determined whether children were referred for services. Parents who thought that their children displayed hyperactivity, not merely inattention, viewed symptoms as being more severe (Sayal, 2006).

As stated previously, this study seeks to explore the possibility of utilizing play observation as a developmental screener to assist caregivers, school personnel, and

medical personnel in the identification of developmental or behavioral disabilities, and social and academic competence. Examples of ADHD characteristics that are observable through play include inappropriate emotional and behavioral responsiveness, difficulty with self-regulation or social independence, difficulty with problem-solving, difficulty with social cooperation and social interaction, lack of persistence, and difficulty with memory.

### **Relationship of Play and Social Competence**

The value of play extends to the social-emotional development of the child. Children explore adult roles, learn to cope with others, and work out their feelings through make-believe play. For example, a child who is frustrated and upset about being forced to go to the dentist can play out their anxieties before or after the visit. In this way, the child learns to regulate their behavior and cope with their feelings. Erikson (1963) has noted the importance of play to the development of autonomy, initiative, and the sense of accomplishment. Children gain a feeling of satisfaction and “joy of being the cause” through play. These positive feelings help the child build a strong self-concept (Yawkey, Dank, & Glosenger, 1968).

Social skills may be readily observable in play settings. Observers can compare how children interact with parents, siblings, teachers, strangers, and peers. These observations can yield important information concerning a child’s needs for intervention to promote social interaction skills. For example, through observations of mother-child play, professionals may suggest strategies for the mother to use to promote turn-taking with the child. Observations of peer-play allow teachers and other professionals to note whether a child needs to learn how to approach other children to join in their play or to

develop other social skills that have life-long implications. Healthy play accommodates to the needs of self and others.

Parent-Child Interaction Therapy (PCIT) provides one form of therapeutic play intervention that incorporates relationship enhancement and positive communication strategies (Eyberg, 1988). Parent-Child Interaction Therapy, based on a model developed by Constance Hanf, is conducted in two stages, child-directed interaction and parent-directed interaction in the context of dyadic play situations. A goal of the child-directed-interaction stage is to assist children with developmental delay in developing basic play skills, which are critical to exploration of the environment and cognitive development (Eyberg, 1988). The skills taught in the child-directed-interaction stage promote parental behaviors associated with children's environmental mastery, including being responsive, providing opportunities to explore, allowing independent play, rewarding success experiences, and being nonintrusive. Descriptions of parental behaviors to be eliminated or increased and their rationales are included in Table 2-5 and types of toys used in child-directed interaction dyadic play are listed in Table 2-6.

Studies examining the effectiveness of PCIT with nondelayed, conduct-problem young children have demonstrated statistically and clinically significant improvements in child disruptive behavior and noncompliance (Eisenstadt, et al., 1993, Eyberg & Robinson, 1982). Treatment improvements have been found to generalize to the home (Boggs, 1990), to the school setting (McNeil, et al., 1991), and to untreated siblings (Eyberg & Robinson, 1982).

Although the outcome research on PCIT has evaluated its usefulness with nondelayed children, it was based on a model originally developed for use with multiply

handicapped, developmentally delayed children. In addition, PCIT is used routinely with families of young children with mild developmental delays and children with more severe developmental disabilities such as mental retardation (Eyberg 1979, 1988; Eyberg & Boggs, 1989).

### **Early Intervention for Developmental Delay**

The timing of identification and entry into early intervention spans the birth to 36-month age period. Slightly more than 200,000 children are identified as having a developmental disability or being at risk for one before 36 months of age and are enrolled in early intervention programs under Part C of the Individuals With Disabilities Education Act (IDEA). The IDEA mandates 16 components (see below) of early intervention and provides an accompanying set of regulations to guide program implementation. However, considerable variability exists across states in the nature and extent of services provided.

As stated previously, infants or toddlers with disabilities in one or more of the following areas of development may qualify for early intervention: physical, cognitive, adaptive, communicative, or social and/or emotional development (Bailey, et al., 2004). Early intervention services under IDEA include the following 16 components: early identification, screening, and assessment; family training, counseling, and home visits; special instruction; speech-language pathology and audiology services; occupational therapy; physical therapy; psychological services; service coordination; medical services for diagnostic or evaluation purposes; health services necessary to enable the infant or toddler to benefit from other early intervention services; vision services; social work services; assistive technology devices and services, and transportation and related costs to receive another covered service

(<http://www2.ed.gov/policy/speced/leg/idea.pdf>). With some exceptions, these are provided at no cost to the family.

In 1986, the U.S. Congress mandated a range of early intervention services to be provided to infants and toddlers with disabilities. Early intervention is designed to improve outcomes for children with disabilities by providing early, appropriate, and intensive interventions. Public Law 105-17 provides for special services for the youngest members of our society. This was due to an urgent and substantial need both to enhance the development of infants and toddlers with disabilities and to minimize their potential for developmental delay.

Early intervention is designed to serve children with disabilities under age 3 and their families. Each state receives federal grants to provide comprehensive services to infants and toddlers with disabilities. A lead agency in each state administers the statewide program. Each state establishes criteria for eligibility within parameters set by the federal government and as outlined in public law ([http://www.ed.gov/offices/OSERS/IDEA/the\\_law.html](http://www.ed.gov/offices/OSERS/IDEA/the_law.html)).

Public Law 105-17 describes early intervention as a statewide, comprehensive, coordinated, multidisciplinary, interagency system that provides early intervention services for infants and toddlers with disabilities and their families. In simpler terms, early intervention services range from early identification, screening and assessment to medical services for diagnostic or evaluation purposes at the early stages of an infant or toddler's disability.

### **Significance of Early Intervention**

The development and implementation of effective treatments are critically important to improving adaptive and prosocial functioning. Epidemiological research has

demonstrated that a high proportion of youth experience significant impairment. Many dysfunctions that begin during early childhood continue through middle childhood and on through adolescence and into adulthood. Thus, interventions are needed during the early childhood period. Early intervention can reduce the suffering of children and adolescents and prevent or attenuate impairment in adulthood. Psychotherapeutic and psychopharmacological interventions provided on an outpatient basis can be particularly effective. These services can be provided on a much larger scale compared to more restrictive, costly, and disruptive interventions (e.g. hospitalization and residential care). Psychosocial interventions include a wide range of interventions designed to decrease or eliminate symptoms and maladjustment (Kazdin, 1996).

### **Early Intervention for Social Competence**

Recent research has validated the importance of ensuring that young children have access to the environments and interactions that enhance social development. Moreover, the evidence that the early years constitute a pivotal time for providing effective interventions to address challenging behavior is persuasive (Dunlap et al., 2006). A child is at an increased risk of continuing to have behavioral difficulties if challenging behaviors are not addressed effectively early in a child's development. The adoption of the Pyramid Model (Fig. 2-2) across all early education settings (i.e., child care, Head Start, early childhood special education, preschool programs) is recommended to promote young children's social development, prevent behavior challenges, and provide effective interventions for addressing challenging behavior. The pyramid model provides a tiered intervention framework of evidence-based interventions for promoting the social, emotional, and behavioral development of young children (Fox et al., 2003; Hemmeter, Ostrosky, & Fox, 2006). The model describes

three tiers of intervention practice: universal promotion for all children; secondary preventions to address the intervention needs for children at risk of social emotional delays, and tertiary interventions needed for children with persistent challenges.

### **Evaluation of Risk and Protective Factors**

Multiple settings and multiple systems must be considered because more than one risk factor tends to exist when examining the factors that may be targeted for intervention efforts (Bronfenbrenner, 1994). Many investigators who started out examining a single risk factor soon realized that a risk factor rarely occurs alone (Kalil & Kunz, 1999; Masten & Coatsworth, 1998). Children who are at risk often experience many risks and recurring stressors. Thus, focusing on a single risk factor may not address the reality of most children's lives.

No one particular risk factor and instead the number of risk factors in a child's background were found to contribute to psychiatric disorders (Rutter, 1979). Differences between children with few and many risk factors were determined by creating a multiple risk score that represented the total number of risks for each individual family. Most children with only a single risk factor did not have a major developmental problem. Major differences were found in the mental health and intelligence between children with 3 or fewer risks and those with 8 or more risks. The largest difference was in academic achievement. Children with 8 or more risks were 6.7 times more likely than children with 3 or fewer risks to have low academic achievement.

### **Interventions Need to Target More Than One Risk Factor**

The identification of some qualities that show an interactive effect may be important to an understanding of interventions. As stated previously, multiple settings

and multiple systems should be considered because more than one risk factor may need to be targeted for intervention efforts (Bronfenbrenner, 1994). One approach is to determine whether some environmental qualities buffer the effects of other risks (i.e. Sameroff 's work). Another approach is to determine whether some qualities in the child would serve as buffers (i.e. Rutter). Rutter (1979) suggests that social competence is due to the interaction between risk and protective factors that occurs over time rather than due to the intensity of one or multiple factors at any one time.

### **Behavioral and Academic Interventions**

Approximately 11% of children ages 6 to 17 years are served during the early elementary years when behavioral or academic problems become evident in the context of school performance. In contrast, only 5% of the preschool age population, ages 3 to 5 years and 1.8% of the infant-toddler population, birth through 2 years receive special education or early intervention services (Bailey, et al., 2004).

### **Preschool Programs**

Forty-nine percent of children ages 3 and 4 (3.7 million) are enrolled in preschool programs ([www.NIEER.org](http://www.NIEER.org)). Scientists have become increasingly interested in the psychological consequences of caregiving for preschool children as well as its impact on school transition and later school functioning (NICHD-ECCRN, 2002, 2005). In addition, interventions during the preschool years have attempted to help children who are most at risk for school failure (e.g. those living in poverty) catch up to their peers and to be equally ready for school (Barnett, 1995).

A study of 1,272 kindergarten children in 21 school districts found that, compared to those children who did not attend preschool programs, children who attended such

programs for two years displayed better receptive vocabulary, print awareness, and math skills (Barnett & Lamy, 2006).

**Perry Preschool Project.** A longitudinal study of the Perry Preschool Project (Schulman & Barnett, 1995) followed 123 low-income participants through age 40. The Project program consisted of half-day classes held five days a week along with a weekly home visit. The curriculum used a participatory education model that emphasized self-initiated learning by children as well as direct instruction. Children who participated in this program later displayed a greater commitment to school than others who did not participate in the program as reflected by their attitudes toward school and schoolwork during their teenage years.

Differences in social adjustment among Perry Preschool program participants were evident in elementary school. Reports from kindergarten through third grade teachers indicated that children who had attended the preschool program tended to display a lower frequency of personal and school misconduct than children in the control group.

**Abecedarian Project.** A longitudinal study of the Abecedarian Project (Schulman & Barnett, 1995) followed 104 at-risk children from age 3 through age 21. Children in this full day program participated in an intensive, child-centered, and individualized curriculum that emphasized the development of cognitive, language, and behavior skills. Program participants later displayed a higher rate of high school graduation rate at age 19 (67%) compared to same age peers who did not participate in the project (51%) and increased enrollment levels in higher education (36%) than same age peers who did not participate in the project (14%).

**School Development Program.** The School Development Program (Haynes, Comer, & Hamilton-Lee, 1988) was designed to promote the academic achievement of inner-city elementary school children. The program utilized an ecological systems approach that included a governance and management team, a mental health team, parent participation, and curriculum and staff development. Students were on grade level in mathematics and reading for each of the four study years, and suspension, absenteeism, and corporal punishments declined steadily between 1982-83 and 1985.

**Chicago Title 1 Child-Parent Centers.** A quasi-experimental study compared 989 children who completed preschool and kindergarten in the Chicago Title 1 Child-Parent Centers (CPC) operated by Chicago Public Schools with 550 children in similar neighborhoods who did not attend the preschool program and instead participated in a full-day kindergarten program. The preschool program offered a structured set of educational activities that emphasized reading and math skills, parent participation opportunities, and parent support. Participation in CPC preschool was associated with significantly better performance on all outcomes. Lower income level within a school attendance area was linked with significant variance to word analysis skills in kindergarten ( $-.046, p < 0.05$ ), reading achievement in eighth grade ( $-0.79, p < 0.01$ ), juvenile delinquency ( $0.50, p < 0.01$ ), and high school completion ( $0.49, p < 0.01$ ). Parent involvement predicted word analysis at kindergarten ( $0.44, p < 0.05$ ), later reading achievement ( $0.45, p < 0.05$ ), and high school completion ( $0.41, p < 0.05$ ). Site location, and family stability were associated only with eighth grade reading achievement (Clements, 2004). In all four programs described above, children receiving

the interventions showed significantly stronger academic and social skill development compared to equally at-risk children not enrolled in the programs.

### **Play As the Context for Intervention**

The importance of play as the context for intervention activities has been recommended often because, in part, it provides a primary context in which young children can be observed while learning and practicing emerging skills (Casby, 2003; Morrison, Sainato, Benchaaban, & Endo, 2002). Play provides the context in which the young child's social, emotional, and communicative competencies become integrated. Evidence of cognitive, speech, and language delays often constitutes the most salient concerns for many parents with young children who display deficits or delays. Parents also become concerned when they observe deficits and delays in social skills and may seek developmental interventions.

### **Play Interventions**

An aim of psychosocial interventions typically is to provide support to the child's caregivers such that the child is encouraged to interact positively with peers. Children thought to be at risk because their caregivers cannot fulfill their caregiving roles adequately may warrant additional interventions, including family support or family therapy. A number of services are available to families that are at psychosocial risk who also have a child with an established disability (Guralnick, 2005). Only a few families take advantage of such services.

The manner in which high-quality practices (e.g. the combination of developmentally appropriate practices with individualization based on the child's unique characteristics) result in successful inclusion is well established (Buysse, Skinner, & Grant, 2001). Twelve principles for developmentally appropriate practice in early

childhood programs serving children from birth through age 8 were identified by the National Association for the Education of Young Children in 2009 (Appendix B). Each principle addresses either cognitive, physical, social and/or emotional development, is based on extensive research, and provides a solid base for decision-making on how best to meet the educational needs of young children. Principle 10 is dedicated solely to play, describing play as an important vehicle for developing self-regulation, promoting language, cognition, and social competence.

Children in child care/preschool settings who need special education services typically participate less frequently in the social process of play as do other children (Almqvist, 2001; Jansson, 2002; Preisler, Tvingstedt, & Ahlstrom, 2002). Restrictions in peer interaction and play may be related to differences between children's beliefs about the context, ability, and opportunities to manipulate the physical environment, ability to interpret the meaning of symbolic action, and ability to share the socio-communicative system created in play (Bjorck-Akesson, & Granlund, in Guralnick, 2005). The type of difficulties observed in the social process of play varies among individual children (Jansson, 2003). The social process of play in children who participate in adult-structured activities is less restricted compared to other children who do not participate in adult-structured activities (Almqvist, 2001).

### **Role of the Teacher in Play-Based Curriculum**

Interventions intended to increase social participation and peer interaction of children in need of special services are provided mainly by preschool teachers and other child care/preschool personnel. These interventions typically are needed to compensate for a child's lack of information about the physical environment, to assist the child in interpreting the meaning in social events, or to support the child's social

interaction (Jansson, 2003). However, such interventions may be difficult to implement. Peer group play is disturbed easily when targeted for intervention (Jansson, 2003; Preisler et al., 2002). Peer cultures tend to defend themselves from outside interference (Jansson 2003). They act as a partially closed system that may break down if adult intrusion disturbs the play script and is replaced by adult-child dyadic interaction. Adult interventions in play contexts frequently result in a breakdown of the play activity (Jansson, 2002). Successful adult-implemented intervention generally confirms the rules for play set by the children and intervenes within the frame of the play script set by the children (Guralnick, 2005).

Likewise, special education services, although well-intentioned, can be ineffective in promoting social interaction during play. For example, one-on-one aides often work with the child to the extent the activities of the child and the aide are parallel to and not integrated with activities of other children and staff, thus creating a subsystem within the preschool rather than active participants within the same system (Rabe, Hill, & Andersson, 2001).

Teachers can perform a strong though subtle role in an effective play-based kindergarten. Teachers often are knowledgeable about the cognitive, physical, and social-emotional development of children. They may be attuned to the children's play themes and build on them, and introduce new content and play materials to stimulate children's minds. They may be familiar with the needs of individual children and help them overcome obstacles that hinder learning.

### **Summary**

Play contributes to the intellectual, social, psychomotor, and emotional growth of children. Play behaviors and patterns of play are believed to reflect various aspects of a

child's inner life such as developmental level of functioning, and competence abilities (O'Connor & Ammen, 1997; O'Connor, 1991). This study seeks to explore the possibility utilizing observation of free-play activity choice as a developmental screener to assist caregivers, school personnel, and medical personnel in the early identification of developmental or behavioral disabilities, and social and academic competence.

Children's emotional and social skills are related to their early academic achievement (Raver, 2003; Wentzel & Asher, 1995). Play provides a primary context in which young children can be observed while learning and practicing emerging skills (Casby, 2003; Morrison, Sainato, Benchaaban, & Endo, 2002). The activity children choose during child-directed free play may be related to age, gender, disability, temperament, availability of play activities, social competence, problem behaviors and/or academic competence. This study seeks to identify the relationship between free-play activity choice and social and academic competence.

### **Research Questions**

This study examined the following six questions:

1. What is the most frequent free-play activity choice for two age cohorts?
2. Is the frequency of free-play activity choice related to the activities that are available?
3. What is the relationship between free-play activity choice in preschool and children's social competence over time?
4. What is the relationship between free-play activity choice in preschool and children's problem behaviors over time?
5. What is the relationship between free-play activity choice and temperament of preschool children with and without problem behaviors?
6. To what extent does free-play activity choice predict academic competence in preschool, kindergarten and 1<sup>st</sup> grade?

This study also investigated the following six hypotheses:

### **Hypotheses**

1. There will be a direct relationship between free-play activity choice and the age cohort.

When children are ages 3 to 5, their play becomes more dramatic and involves an element of pretense and includes the child taking on the role of someone else (Gitlin-Weiner, et al., 2000). Children ages 4 to 5 who engage in socio-dramatic play generally display more developed language, social skills, empathy, imagination, and a subtle capacity to infer what others mean than those children who do not engage in socio-dramatic play.

2. There will be a direct relationship between the frequency of free-play activity choice and the activities that are available in the classroom.

Play itself provides the context, not the setting, in which the young child's social, emotional, and communicative competencies become integrated. Erikson noted that children's choice of play material depends on what is available in the child's culture as well as on the skills a child had developed. For example, both boys and girls become involved in domestic play and both genders may play the mother's role.

3. There will be a direct relationship between free-play activity choice in preschool and social competence in preschool, kindergarten, 1st grade, and 2nd grade.

The value of play extends to the social-emotional development of the child. Children explore adult roles, learn to cope with others, and work out their feelings through make-believe play. Erikson (1963) noted the importance of play to the development of autonomy, initiative, and the sense of accomplishment. Children gain a feeling of satisfaction and "joy of being the cause" through play. These positive feelings help the child build a strong self-concept (Yawkey, Dank, & Glosenger, 1968). Children

ages 4 to 5 who engage in sociodramatic play are less aggressive and show more self-control and higher levels of thinking than those who do not engage in socio-dramatic play (Miller & Almon, 2009).

4. There will be a direct relationship between free-play activity choice (i.e. blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, and other building toys) in preschool and problem behaviors (i.e. internalizing, externalizing) in preschool, kindergarten, 1st grade, and 2nd grade.

Compensatory play (Piaget, 1951) involves the child doing things normally forbidden, or pretending that something has happened that has not occurred. Such play may be a cathartic neutralization of fear or anger, or it may be a wish fulfillment. In anticipatory play, children play out fears of the consequences of refusing to do what is expected of them. The child constantly told to be careful may have dolls that 'forgot' and encounter harm.

5. After controlling for SES, program type, and disability, children with developmental delay and with problem behaviors will evidence fewer academic-readiness skills (e.g. less developed social competence, less developed literacy and numeracy skills) than children without disabilities and without problem behaviors.

As stated earlier, early risk has an adverse effect on academic trajectories during grades 1 through 12 (Garmezy, 1993). Major differences exist on mental health and intelligence measures between those children with 3 or fewer risks versus those with 8 or more risks (Rutter, 1979). The strongest effects were for academic performance, where the relative risk for low academic performance was 7 percent in the low-risk group and 45 percent in the high-risk group resulting in an odds ratio of 6.7 to 1. Children with 8 or more risks were 6.7 times more likely than children in the low-risk group (3 or fewer) to have low academic performance.

6. Among children with developmental delay and problem behaviors, there will be a direct relationship between the most frequent activity chosen in preschool during

child-directed free-play and academic competence in preschool, kindergarten and 1st grade.

Play is critical to a child's physical and cognitive development. From play, children develop social skills, have greater self-regulation and abilities to work through problems; are more cooperative; develop long lasting interactions; greater imaginative and flexible thinking; and greater persistence; increased memory development, including abstract thinking and meaning; storytelling and story memory; more complex cognitive skills (e.g. language and vocabulary); and more scientific, mathematical, and social discoveries (Gitlin-Weiner, et al., 2000). The most frequent activity choice (i.e. representational competence, exploratory competence) differs by disability. Problem behavior does not differ by disability but does differ by activity choice. Student achievement differs by problem behaviors and problem behaviors differ by activity choice, thus student achievement differs by activity choice.

### **Significance of this Study**

Previous studies that operationalized free-play activity choice during preschool could not be located. Thus the relationship between activity choices and social skills, problem behavior, academic development, and cognitive ability is not known. The use of the dataset provided by the Pre-Elementary Education Longitudinal Study (PEELS) may provide both primary and secondary benefits. The primary benefit may be found in helping to identify behaviors that assist in the early identification of children with disabilities and problem behaviors. This information may assist in the design of specific program and activity types that decrease problem behaviors and promote prosocial skills. A secondary benefit may be the design and development of interventions that

can be delivered earlier in a child's development in order to increase academic skills and decrease the later need for more intensive intervention.

One of the primary interests of stakeholders engaged in the PEELS research (OSEP, April 1, 2005) is to attempt to link intervention program qualities with different child outcomes. Because PEELS data come from a nationally representative sample of 3,000 children, the findings from this study may be generalized to the national population. Providing the ability to link play observations to social and academic outcomes may aid early childhood centers and others in providing developmentally-appropriate play activities, designing and improving academic outcome measures for young children with disabilities, extend our knowledge of the impact of problem behaviors exhibited by children with disabilities or at risk of developing disabilities, and extend our knowledge of play assessment and play intervention. The following sectors of the education community may be served by this work: preschool and early elementary private and public education, undergraduate and graduate programs in early childhood education and related areas, and public policy initiatives.

Table 2-1. Examples of Play Definitions from 1962 to 2000

Ellis (1973)	Knox (1974)	Garvey (1977); Piaget (1962)	McCune- Nicolich & Fenson (1984)	Gitlin-Weiner, Sandgrund & Schaefer (2000)
Processes that enhance all areas of development	Space management	Pleasurable	Pursued for its own sake	Types and numbers of toys used
	Material management	Spontaneous	Focused on means rather than ends	Context of play
	Imitation	Flexible	Directed toward exploring objects in order to do something with the objects	Participants involved
	Participation	Natural product of physical and cognitive growth	Not considered a serious endeavor because no realistic result is expected	Sequences of play themes
			Not governed by external rules	Space used
			Characterized by active engagement of the player	Style with which the play activities are performed
				Degree of effort invested in the play

Table 2-2. Developmental Characteristics of Play (Butler, Gotts, & Quisenberry, 1978; Garvey, 1990; Howes, 1992; Goncu, 1993; Bjorklund, 2005; Nash & Schaefer, 2010)

Areas of development	Infancy (ages 0 – 12 mos.)	Toddlerhood (12-24 mos.)	Preschool (age 3)	Preschool (age 4)	Kindergarten (age 5)
Visual	Joint attention	Sustained attention	-----*	-----	-----
Cognition	Imitation and repetition	Intentionality or goal-directed behavior	Play themes move between reality and fantasy	More involved pretend play; more than one play theme	Basis of critical and divergent thinking begin to emerge; 3 or more play themes at a time
Motor	Explore and engage in simple motoric actions	-----	-----	Fine motor and gross motor coordination improves	-----
Language	Explore with all their senses	-----	-----	Rapid language development	-----
Sensory	Gain pleasure through their actions	Use simple play materials to satisfy their own purposes	Engage in dramatic and sociodramatic play	-----	-----
Social	Solitary play	Solitary play	Parallel play; social role play; play themes with one other child	Cooperative & social play	Social skills increase through cooperative & social play; elaborate pretend play

\*Specific characteristics of development at this age were not mentioned by these authors

Table 2-3. Developmental and Behavioral Disorders

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Attention-Deficit Disorder (ADD)/Attention-Deficit Hyperactivity Disorder (ADHD)

Angelman Syndrome

Autism and Other Pervasive Developmental Disorders

Bipolar Disorder

Central Auditory Processing Disorder (CAPD)

Cerebral Palsy

Down Syndrome

Expressive Language Disorder

Fragile X Syndrome

IsoDicentric 15

Landau-Kleffner Syndrome

Learning Disabilities

Mental Retardation

Neural Tube Defects

Prader-Willi Syndrome

Phenylketonuria (PKU)

Prader-Willi Syndrome

Seizure Disorders

Tourette Syndrome

Traumatic Brain Injury

Williams Syndrome

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Table 2-4. Risk Variables in Domains of the Social Ecology in the Philadelphia Study  
(Clark-Stewart & Dunn, p.59)

Domain	Variable
Family process	Support for autonomy Discipline effectiveness Parental investment Family climate
Parent characteristics	Education Efficacy Resourcefulness Mental Health
Family structure	Marital status Household crowding Welfare receipt
Management of community	Institutional involvement Informal networks Social resources Economic adjustment
Peers	Prosocial Antisocial
Community	Neighborhood SES Neighborhood problems School climate

Table 2-5. Summary of Child-Directed Interaction Skills and Rationales for their Use with Developmentally Delayed Children

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Don't Give Commands

- Takes lead away
- May cause unpleasantness if child disobeys or does not understand command
- Detracts from child's sense of competence, which is necessary to remediate delays

Don't Ask Questions

- May discourage spontaneous speech
- May communicate disagreement or disapproval
- Takes the lead away

Don't Make Critical Statements

- May negatively affect self-esteem
- Causes unpleasantness in interaction

Do Describe Child's Play

- Reinforces the child for acquiring toy play skills
- Helps parent to follow along at child's level of development
- May improve receptive and expressive language
- Helps child organize thoughts about play
- Can be used to teach preacademic skills
- Can lengthen child's attention span, which may be particularly short in delayed children

Do Reflect Child's Verbalizations and Preverbal Attempts

- Conveys attention and understanding of what the child has said
- Teaches child about turn taking in conversation
- Can stimulate language development by elaborating on child's verbalization
- Can provide corrective feedback on child speech

Do Imitate Child's Play

- Promotes positive self-esteem
- Encourages child to imitate parent in turn, increasing child receptivity to parents' modeling of skills

Do Praise Appropriate Behavior

- Builds child's positive self-concept
- Reinforces appropriate behavior
- Adds warmth to parent-child relationship and enhances parent-child bonding
- May help child persist in learning difficult tasks

Do Ignore Negative Attention-Seeking Behavior

- Extinguishes the negative attention-seeking behaviors common in developmentally delayed children, without being punitive

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Adapted from Eyberg & Boggs (1989)

Table 2-6. Child-Directed Interaction Toys (McElreath & Eisenstadt, 1997)

Toys that are complementary to the goals of CDI:	Toys that may detract from the success of CDI:
<p>Constructional Toys (alphabet blocks, Duplos, Mr. Potato Head)-easy for the child to take the lead and the parent to follow along at the child's level of development</p>	<p>Toys that lead to rough or aggressive play (action figures, toy weapons, bats and balls, punching bags)</p>
<p>Toys that encourage fine motor development (chalk and chalkboard, crayons and paper, beads and string, simple puzzles, formboards) can be used for children with developmental delay</p>	<p>Toys that might require limit setting (paints, scissors, or clay)</p>
<p>For children functioning at the developmental level of 12-24 mos. (bristle blocks, magnetic blocks, activity boards containing tactile, auditory, and visual stimuli)</p>	<p>Toys that have preset rules (board or card games)-take the lead away from the child</p>
	<p>Toys that lead the parent or child to pretend to be someone else (toy telephones, costumes, or dolls)</p>
	<p>Books are important educational tools; however, tend to discourage direct conversation</p>

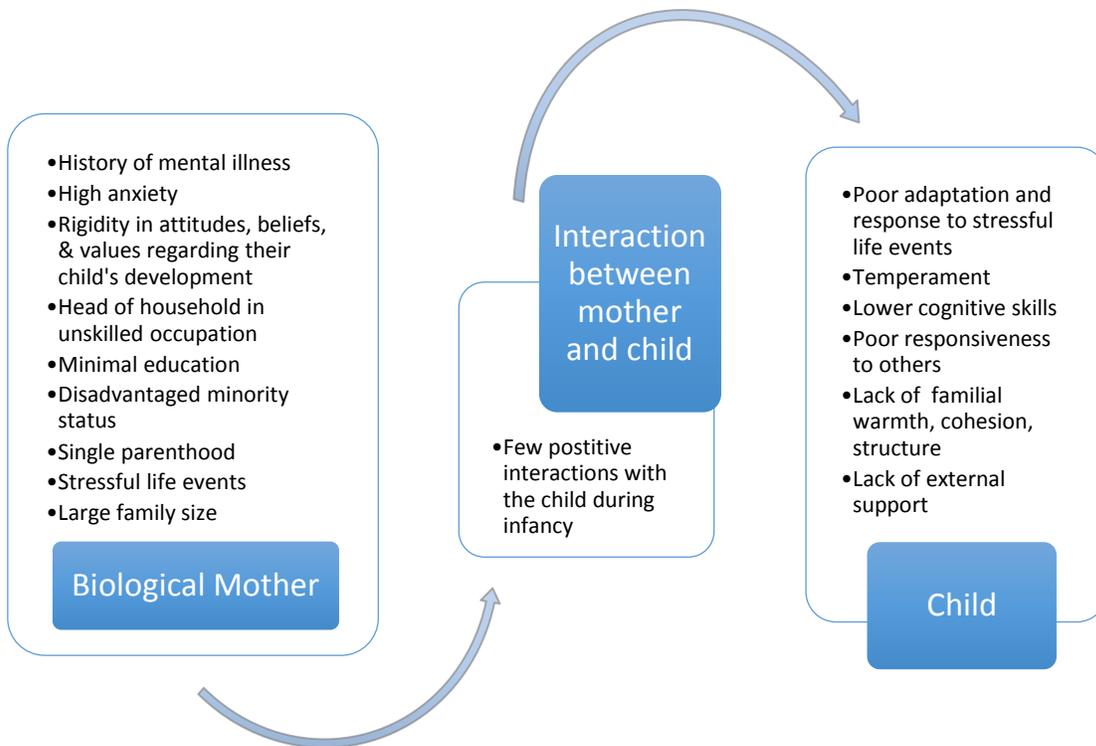


Figure 2-1. Risk Factors Contributing to Cognitive and Social-Emotional Competence

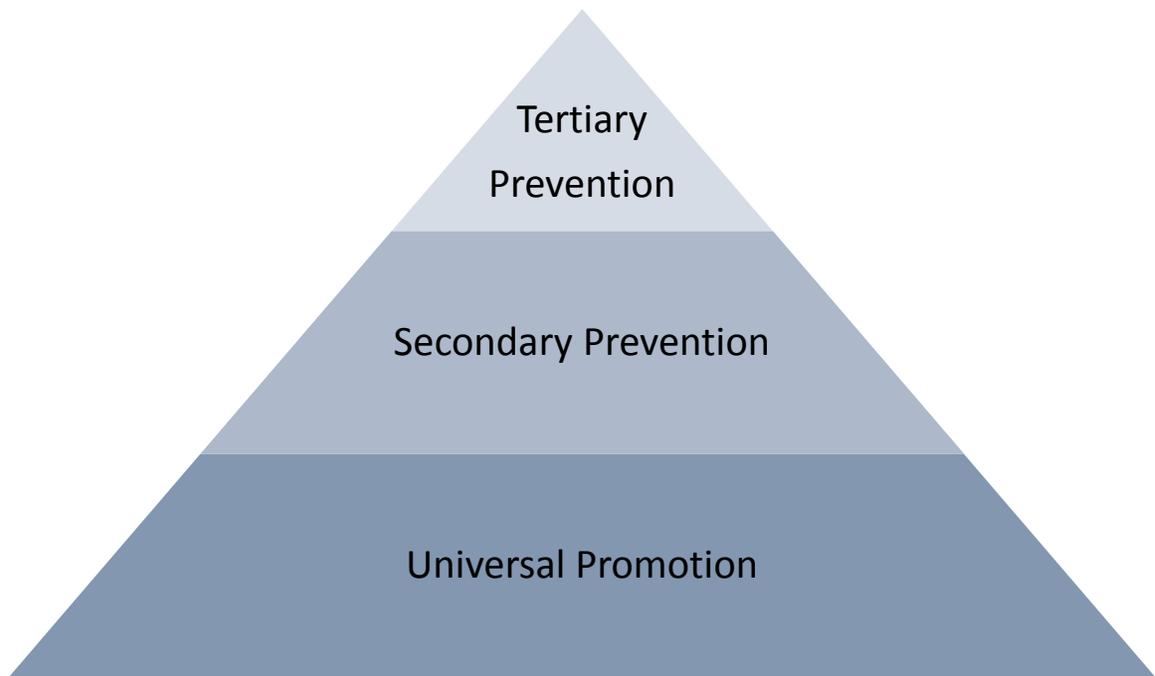


Figure 2-2. The Pyramid

## CHAPTER 3 METHOD

### **Participants**

The PEELS data include a sample of 3,104 children with and without disabilities, ages 3 to 5 at the start of the study in 2003. Each child with a disability who was receiving special education services had either an Individual Education Plan or an Individualized Family Service Plan. Children without disabilities did not have an Individual Education Plan or an Individualized Family Service Plan. The PEELS study was designed to describe the services that each child received as well as the nature of their transitions from early intervention to preschool and from preschool to elementary school.

The PEELS data include three age cohorts of children thus enabling an account of maturation effects. Participants for cohort A are 986 three-year-olds. Participants for cohort B are 1,125 four-year-olds, and participants for cohort C are 993 five-year-olds (Table 3-1). The goal of the PEELS sample selection was to obtain a sample of children that is nationally representative of children in preschool with and without disabilities in reference to gender (Table 3-2), race (Table 3-3), and household income (Table 3-4). The following disabilities are represented by the PEELS study: autism (AU), developmental disability (DD), emotional disability (ED), learning disability (LD), mental retardation (MR), orthopedically impaired (OI), other health impaired (OHI), speech and language impaired (SLI), and language impaired (LI) (Table 3-5).

Only 806 children with developmental disability or delay (28.5% of the PEELS study participants) and 96 children without a disability or children not receiving special education services (3.1%) were selected for the current study. Two age cohorts, Cohort

B (i.e. 280 four-year-olds) and Cohort C (i.e. 198 five-year-olds) consisting of children with developmental disability (280 four-year-olds and 198 five-year-olds) and children without disabilities (96 four-year-olds and 52 five-year-olds) were selected for the study. Of the 626 total children selected for the study, data for four consecutive years were available for only 148 participants.

Participants were selected according to the Ethical Principles of Psychologists and Code Of Conduct of the American Psychological Association (APA, 2002) by those who acquired the data. This study protocol was approved by University of Florida's Institutional Review Board (Appendix C).

### **Participant Descriptive Information**

According to Head Start Program Fact Sheet for 2003 (Administration on Children, Youth, and Families, 2004), total Head Start enrollment for 2003 was 909,608. Of the total Head Start enrollment, 31.5% were African American, 30.6% were Hispanic/Latino, 27.6% were White, 3.2% were American Indian/Alaska Native, 1.8% were Asian, 1.1% were Hawaiian/Pacific Islander. Approximately 50% were male and 50% were female, 34% were 3 year olds, 53% were 4 year olds, and 5% were 5 year olds and older. Of the total Head Start enrollment, 12.5% had disabilities (mental retardation, health impairments, visual handicaps, hearing impairments, emotional disturbance, speech and language impairments, orthopedic handicaps and learning disabilities).

Of the 148 participants in the current study, 65% were male and 35% were female. The following cultural groups were represented in the sample: White (51%), African American or Black (28%), Asian (16%), American Indian or Alaska Native (6%), or Native Hawaiian or other Pacific Islander (0%). Fewer white children and more black

children were participants in the current study than the overall PEELS study participants (Table 3-3). Nearly all (e.g. 99%) children in the current study attended a Head Start Program. The majority (e.g. 66%) attended an early childhood class. Data pertaining to type of class placement were unavailable for 34% of children. Among four-year-old children, 100% attended a Head Start program, 61% of whom attended an early childhood class. Data pertaining to type of class placement were unavailable for 40% of children. Among five-year-old children, 100% attended a Head Start program, 41% of whom attended in an early childhood class. Data pertaining to type of class placement were unavailable for 28% of children. The total income of families with children in the sample were as follows: 39.6 % were from families with income \$25,001-\$30,000, 27.7% with income \$30,001-\$35,000 19.6% with income \$35,001-40,000, 11.5% with income \$40,001-\$45,000, and 2.0% with income \$45,001-\$50,000. There were no families with children in the sample with income below \$20,000 and above \$50,000. There were more families in the study sample with income \$25,000-\$35,000 than in the PEELS study sample.

### **Sample Design**

The PEELS study used a two-stage sampling design to obtain a nationally representative sample of 3 to 5-year-olds who were or were not receiving special education services. In the first stage, a national sample of local education agencies (LEAs) was selected. In the second stage, a sample of preschoolers with and without disabilities was selected from lists of eligible children provided by the participating LEAs.

In 2001, 2,752 LEAs were selected from all LEAs serving preschoolers with disabilities. The LEAs were stratified by four census regions, four categories of estimated preschool special education enrollment size, and four income classes defined

on the basis of district poverty level. The target number of 210 LEAs was needed to generate a sufficient number of children in the second stage sample. A total of 709 LEAs was contacted during recruitment and 245 LEAs agreed to participate. In spring 2003, 46 of the 245 LEAs recruited in 2001 dropped out of the study. The 199 remaining LEAs confirmed their participation and began to supply lists of preschool children who were receiving special education services.

Directors of special education and superintendents were contacted in order to secure districts' participation. A participating LEA was required to return a signed agreement affirming that the district would complete the following five tasks: 1) provide one or more names and contact information for a potential site coordinator for the study; 2) allow the site coordinator and other cooperating district staff to recruit families into the study; 3) forward contact information from parents who consented to participate in the study; 4) allow selected teachers, other service providers, and principals of sampled children to complete a mail questionnaire; and 5) allow selected children to participate in a direct assessment following parental consent.

### **Instrumentation**

My permission to use the PEELS dataset was received from the U.S. Department of Education's National Center for Special Education Research (NCSER) prior to my data collection. The user agreement between the University of Florida's College of Education, Department of Special Education, School Psychology and Early Childhood Studies and NCSER is provided in Appendix D. The PEELS study data collection began in 2003 and initial results were made available in the Wave 1 report entitled Assessment Results for Preschoolers with Disabilities submitted to the Office of Special Education Programs April 1, 2005. Data collection for the current study began with this release of

data and continued with each subsequent release of data until the final (and fourth) release of data in 2010.

Specific normative data utilized in the data analysis are included in Table 3-6. The total number of respondents for each PEELS instrument is provided in Table 3-7. Not all assessments were administered in each wave of data collection (Table 3-8). For example, only two versions of the teacher questionnaire were used in Wave 1 (e.g. Early Childhood Teacher Questionnaire, Kindergarten Teacher Questionnaire). Waves 2 and 3 used all three questionnaires (e.g. Elementary School Teacher Questionnaire in addition to the Early Childhood and Kindergarten Teacher Questionnaires) and Wave 4 used only the Kindergarten and Elementary versions. The Preschool and Kindergarten Behavior Scales, Second Edition (PKBS-2) was included in all three versions of the questionnaire in Waves 1 and 2. In Waves 3 and 4, the PKBS-2 was replaced with the Social Skills Rating System (SSRS) due to the respective age of the children at the time of data collection.

### **Statistical Methods**

As this study is retrospective in nature, no variables were manipulated. All variables resulted from test scores, questionnaires, or interviews. Bivariate correlations and regression coefficients between the following variables were identified and analyzed statistically: activities during free play, program type, literacy skills, math skills, receptive vocabulary, problem behavior, and social skills.

Activities during free play, program type, problem behaviors, and social skills were measured by data from the PEELS Early Childhood Teacher Questionnaire (Appendix E), Kindergarten Teacher Questionnaire (Appendix F), and Elementary Teacher Questionnaire (Appendix G). Achievement was measured by data from the

Woodcock-Johnson Tests of Achievement, Third Edition, and the Peabody Picture Vocabulary Test. Information pertaining to children's gender, race, ethnicity, age, disability, and temperament was provided by the PEELS Computer Assisted Telephone Interview (CATI) Parent Questionnaire. CATI content pertaining to the current study is included in Appendix H.

The Adaptive Behavior Assessment System, Second Edition (ABAS-II), Functional (Pre) Academics Scale, Self-Care, and Self-Direction Scale scores were utilized as an alternate assessment in the PEELS study (i.e. children whose first language was not English) and will not be included in this study.

Data collection methods in the PEELS study included parent interviews, direct child assessments, surveys of children's teachers and school/program administrators, as well as surveys of district and state administrators. The current study used data from parent interviews, direct child assessments, and surveys of children's teachers. Surveys from school/program administrators or district and state administrators were not utilized in the current study. The PEELS study design called for five waves of data collection (2004, 2005, 2006, 2007, and 2009) and four releases of data. In the PEELS study, initial data were collected on three age cohorts of children in 2004-2005 (Table 3.8). The current study used the results of the first, second, and third releases of the PEELS micro-level data from 2005-2008 as well as the fourth release of data in 2010.

The independent variables are the ratings of activities taken from the Early Childhood Teacher Questionnaire. Teachers were asked to rate the most frequent, second most frequent, and third most frequent activity engaged in by each child in the classroom.

The dependent variables are the ratings in preschool and kindergarten from the Social Cooperation Scale, Social Interaction Scale, Social Independence Scale, Externalizing Problems Scale, and Internalizing Problems Scale from the Preschool and Kindergarten Behavior Scales, and the Problem Behaviors and Social Skills Scales from the Social Skills Rating System in 1<sup>st</sup> grade, and 2<sup>nd</sup> grade, temperament ratings from the Computer Assisted Telephone Interview, and the scores from the Letter-Word Identification, Applied Problems, and Quantitative Concepts subtests of the Woodcock-Johnson III, and the Peabody Picture Vocabulary Test in preschool, kindergarten, and 1<sup>st</sup> grade (Appendix I).

The Preschool and Kindergarten Behavior Scales, the Social Skills Rating System and the Peabody Picture Vocabulary Test were included in the Early Childhood Teacher Questionnaire, Kindergarten Teacher Questionnaire, and Elementary Teacher Questionnaire. The Preschool and Kindergarten Behavior Scales, 2<sup>nd</sup> Edition Summary/Response Form is included in Appendix J with permission from Pro-Ed, Inc. A sample of the Social Skills Rating System is not included in the Appendix as permission was not granted from PsychCorp/Pearson due to concerns regarding test security. The Social Skills Scales from the Preschool and Kindergarten Behavior Scales include the Social Cooperation Scale, the Social Interaction Scale, and the Social Independence Scale. The initial measure and the measure one year later are derived from the PKBS-2 in years 1 and 2 with different raters each year. Inter-rater agreement on the Preschool Kindergarten Behavior Scales for teachers and teacher aides was low to moderate for both Social Skills (.36 to .61) and Problem Behavior (.42 to .63) Scales (Merrell, 2002). Gender-specific social skills are derived from the Social

Skills Rating System in years 3 and 4 with different raters each year. Inter-rater reliability coefficients for the total social skills subscales of the Social Skills Rating Scales collapsed across three levels (preschool, elementary, and secondary) are relatively low (Van der Oord, et al.,2005). Achenbach et al. (1987) suggest that the SSRS inter-rater reliability coefficients are slightly better than most inter-rater reliability ratings.

The PEELS restricted-use data include individual child data, thus allowing for the use of multiple regression and multivariate analysis of variance, methods that allow for the combination of variables from multiple data sets. The relationship between free-play activity choice, social competence, and academic competence was tested through regression analyses that examined the relationship of free-play activity choice and Preschool and Kindergarten Behavior Scales-2 scores, Social Skills Rating System scores, temperament ratings from the CATI, achievement as measured by the Woodcock Johnson-III and receptive language as measured by the Peabody Picture Vocabulary Test.

**Multiple Regression Models:**

$$y_1 = a + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + B_9X_9 + B_{10}X_{10} + B_{11}X_{11} + B_{12}X_{12} + B_{13}X_{13} + B_{14}X_{14} + B_{15}X_{15} + B_{16}X_{16} + B_{17}X_{17} + B_{18}X_{18} + B_{19}X_{19} + B_{20}X_{20} + B_{21}X_{21} + B_{22}X_{22} + E$$

$$y_2 = a + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + B_9X_9 + B_{10}X_{10} + B_{11}X_{11} + B_{12}X_{12} + B_{13}X_{13} + B_{14}X_{14} + B_{15}X_{15} + B_{16}X_{16} + B_{17}X_{17} + B_{18}X_{18} + B_{19}X_{19} + B_{20}X_{20} + B_{21}X_{21} + B_{22}X_{22} + E$$

$$y_3 = a + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + B_9X_9 + B_{10}X_{10} + B_{11}X_{11} + B_{12}X_{12} + B_{13}X_{13} + B_{14}X_{14} + B_{15}X_{15} + B_{16}X_{16} + B_{17}X_{17} + B_{18}X_{18} + B_{19}X_{19} + B_{20}X_{20} + B_{21}X_{21} + B_{22}X_{22} + E$$

Dependent Variables:

$x_1$  = Preschool and Kindergarten Behavior Scales 2: Social Cooperation Standard Score at years 1 and 2 (SCOOP1, SCOOP2)

$x_2$  = Preschool and Kindergarten Behavior Scales 2: Social Interaction Standard Score at years 1 and 2 (SCINT1, SCINT2)

$x_3$  = Preschool and Kindergarten Behavior Scales 2: Social Independence Standard Score at years 1 and 2 (SCIND1, SCIND2)

$x_4$  = Preschool and Kindergarten Behavior Scales 2: Externalizing Problems Standard Score at years 1 and 2 (EXT1, EXT2)

$x_5$  = Preschool and Kindergarten Behavior Scales 2: Internalizing Problems Standard Score at years 1 and 2 (INT1, INT2)

$x_6$  = Social Skills Rating System: Social Skills-Girls Standard Score at years 3 and 4 (SOCG3, SOCG4)

$x_7$  = Social Skills Rating System: Social Skills-Boys Standard Score at years 3 and 4 (SOCB3, SOCB4)

$x_8$  = Social Skills Rating System: Problem Behavior-Girls Standard Score at years 3 and 4 (PBG3, PBG4)

$x_9$  = Social Skills Rating System: Problem Behavior-Boys Standard Score at years 3 and 4 (PBB3, PBB4)

$x_{10}$  = Jumpy and easily startled (TEMP1)

x<sub>11</sub> = Pays attention to things and stays focused on what they are doing (even when things are going on around them) (TEMP2)

x<sub>12</sub> = Likes to do things on their own even if it is hard (TEMP3)

x<sub>13</sub> = Restless, fidgets a lot, and has trouble sitting still (e.g. very active and restless; always on the move even when presented with tasks appropriate for the child's age that requires sitting still) (TEMP4)

x<sub>14</sub> = Tries to finish things even if it takes a long time (TEMP5)

x<sub>15</sub> = Gets easily involved in everyday things that go on at home, like playing with toys, or paying attention to the conversations (TEMP6)

x<sub>16</sub> = Gets very distracted by sights and sounds, and can't seem to screen them out very well (TEMP7)

x<sub>17</sub> = Great deal of difficulty adjusting to changes in their routines or schedules (TEMP8)

x<sub>18</sub> = Frequently anxious or depressed (TEMP9)

x<sub>19</sub> = Peabody Picture Vocabulary Test Standard Score at years 1, 2, and 3 (PPVT1, PPVT2, PPVT3)

x<sub>20</sub> = Woodcock Johnson III: Letter-Word Identification Standard Score at years 1, 2, and 3 (LW1, LW2, LW3)

x<sub>21</sub> = Woodcock Johnson III: Applied Problems Standard Score at years 1, 2, and 3 (AP1, AP2, AP3)

x<sub>22</sub> = Woodcock Johnson III: Quantitative Concepts at years 2 and 3 (QC2, QC3)

### **Independent Variables:**

y<sub>1</sub> = Most Frequent Free Play Activity Choice in year 1 (ACT1)

y<sub>2</sub> = Second Most Frequent Free Play Activity Choice in year 1 (ACT2)

$y_3$  = Third Most Frequent Free Play Activity Choice in year 1 (ACT3)

The relationship between free-play activity choice and achievement as measured by the above named variables was examined initially for children in preschool and one, two, and three years later. Cohen's  $d$  was used as the effect-size measure. Cohen's (1992) suggests that effect sizes of .20 are small, .50 are medium, and .80 are large. Multivariate analysis of variance was used to examine possible differences between independent and dependent variables. The covariates of disability and race were analyzed by multivariate analysis of covariance (MANCOVA) in order to determine if the relationship between social skills, problem behavior, and academic achievement differs by disability of the same or different cohort, as well as children who differ by gender in the same or different cohort. Household income is potentially a confounding variable that may influence relationships between independent and dependent variables and thus was controlled by keeping this variable constant in the current study.

A 2 X 4 cohort design (two age cohorts across four years) instead of the 3 X 4 cohort design used in the PEELS study was used for the data analysis as the number of participants in cohort A was too small for a reliable comparison of data. The F test, representing the ratio of systematic to unsystematic variance in the model, was used to detect significant difference among two or more groups when there were two or more dependent variables. A  $p < \text{or equal to } \alpha (.05)$  signifies significant difference. Each hypothesis was tested at the .01 and .05 level of significance. Commercial software, specifically SPSS v.19 was used for the analysis.

Initially, descriptive statistics were obtained on all variables. The most frequent, second most frequent, and third most frequent child-directed activity during free-play

was derived across and within each cohort in order to address the first research question. Next, ANOVAs were performed in order to determine significant differences between the variables of free-play activity choice and setting across and within each cohort in order to answer the second research question.

In order to address the third, fourth, and fifth research questions, ANOVAs were performed on each of the dependent variables. Social cooperation, social interaction, and social independence scale scores served as the dependent variables in years 1 and 2 and gender-specific social skills scale scores served as the dependent variables in years 3 and 4 for the third research question. Externalizing problems and internalizing problems served as the dependent variables in years 1 and 2 and gender-specific problem behavior scale scores served as the dependent variables in years 3 and 4 for the fourth research question. For the fifth research question, the most frequent, second-most frequent, and third-most frequent free-play activity choices served as the dependent variables and children's temperament served as the independent variables. Disability and gender served as covariates in all years.

ANOVAs were conducted in order to examine the sixth research question. Achievement scores from the Woodcock Johnson Tests of Achievement, Third Edition: Letter-Word Identification, Applied Problems, and Quantitative Concepts subtests and the Peabody Picture Vocabulary Test in year 1, year 2, and year 3 served as the dependent variables. The results from the fourth research question (e.g. free-play activity choice x problem behaviors) served as the independent variables. Within-year comparisons of the dependent variables were not conducted as the focus of the study

questions pertain to between group differences over time and not within group differences for each year.

Contrasts were calculated to see which groups differ from others by a combination of scores on several dependent measures. Multiple ANOVAs were utilized rather than using multivariate analysis of variance (MANOVA). The ability of MANOVA to detect an effect that genuinely exists is controversial. Ramsey (1982) found that the power of MANOVA decreased as the correlation between dependent variables increased (i.e. groups were similar to one another). As a result, Tabachnick & Fidell (2001) recommended that MANOVA works best with highly negatively correlated (i.e. diverse) dependent variables, relatively well with moderately correlated dependent variables in either direction, and that MANOVA is unnecessary when dependent variables are uncorrelated.

Cole et al (1994) found that the power of MANOVA depends on a combination of the correlation between dependent variables and the effect size. For example, if a large effect size is expected, then MANOVA will have greater power if the measures are somewhat different (even negatively correlated) and if the group differences are in the same direction for each measure. However, if one of the dependent variables exhibits a large group difference and one exhibits a small or no group difference, then power will be increased if these variables are highly correlated. The power of MANOVA is detected best by considering the intercorrelation between dependent variables as well as the expected size and pattern of group differences.

Results from the contrasts suggested high correlations between some dependent measures and no correlation between other dependent measures. A

moderate effect size was expected. Multiple ANOVAs were utilized to address the sixth research question because the use of MANOVA is unnecessary when dependent variables are uncorrelated and the power of MANOVA decreases as the correlation between dependent variables increases. Although the level of significance may be reduced with the use of multiple ANOVAs, Bonferroni corrections were applied to counteract the error added with each univariate analysis.

Table 3-1. Definition of age cohorts in PEELS study and current study

Cohort	Age at entry into PEELS	Date of Birth
A	3 years old	3/1/00 through 2/28/01
B	4 years old	3/1/99 through 2/29/00
C	5 years old	3/1/98 through 2/28/99

Table 3-2. Number of children in the PEELS study and the current study (CS) by gender and cohort

	Number of Children		Male		Female	
	PEELS	CS	PEELS	CS	PEELS	CS
Total	3,104	148	2,189	96	915	52
Cohort A	986	----	692	----	293	----
Cohort B	1,125	76	802	53	322	23
Cohort C	993	72	695	43	300	29

Table 3-3. Race of children in the PEELS study and the current study (CS) by cohort

	Number of Children		White		AA or Black		Asian		Ethnicity*	
	PEELS	CS	PEELS	CS	PEELS	CS	PEELS	CS	PEELS	CS
Total	3,104	148	2015	75	331	23	-----	9	662	41
Cohort A	---	---	---	---	---	---	-----	---	---	---
Cohort B	---	76	---	40	---	9	-----	5	---	22
Cohort C	---	72	---	35	---	14	-----	4	---	19

\*Ethnicity consists of Hispanic, Latino, or other Spanish origin

Table 3-4. Number of children in the PEELS study and the current study (CS) sample by household income and cohort

Number of Children		< \$20,000		\$20,000-30,000		\$30,000-40,000		\$40,000-50,000		> \$50,000	
PEELS	CS	PEELS	CS	PEELS	CS	PEELS	CS	PEELS	CS	PEELS	CS
3,104	148	959	46/58	336	16/41	521	25/29	354	17	916	44/3
Cohort A	7		3		---		2		---		2
Cohort B	76		30		27		10		8		1
Cohort C	72		28		14		19		9		2

Table 3-5. Number of children in the PEELS study and the current study (CS) with developmental delay and without disabilities

	Number of children		Children with DD		Children w/o disability	
	PEELS	CS	PEELS	CS	PEELS	CS
Total	3,104	148	806	96	96	52
Cohort A	986	----	328	----	13	----
Cohort B	1,125	76	280	51	29	25
Cohort C	993	72	198	45	54	27

Table 3-6. Table of Normative Measures

Measures	Purpose
Preschool and Kindergarten Behavior Scales, Second Edition (PKBS-2), Social Skills Rating System (SSRS)	To identify problem behaviors and social skills (e.g. Problem Behaviors Scale; Social Skills Scale)
Woodcock Johnson Third Edition (WJ-III)	To measure literacy (Letter-Word Identification subtest) and math achievement (Applied Problems subtest; Quantitative Concepts subtest)
Peabody Picture Vocabulary Test (PPVT)	To measure receptive vocabulary
Early Childhood Teacher Questionnaire, Kindergarten Teacher Questionnaire, Elementary Teacher Questionnaire	To identify the most frequent activities chosen by the child
Computer Assisted Telephone Interview Parent Questionnaire	To identify children's gender, ethnicity, age, and disability type.

Table 3-7. Total number of respondents for each PEELS instrument

Instrument Type	Wave 1		Wave 2		Wave 3	
	Frequency	Response Rate (%)	Frequency	Response Rate (%)	Frequency	Response Rate (%)
CATI Parent Questionnaire	2,802	96	2,893	93	2,719	88
LEA questionnaire	207	84	---	---	---	---
Teacher mail questionnaire	2,287	79	2,591	84	2,514	81
Early childhood questionnaire	2,018	79	1,320	86	346	82
Kindergarten teacher questionnaire	269	73	957	79	992	81
Elementary teacher questionnaire	---	---	314	86	1,176	81
Child Assessment	2,794	96	2,932	94	2,891	93
Alternate assessment	331	93	228	79	165	93

Table 3-8. Child Measures

Measure	Wave 1 Cohort			Wave 2 Cohort			Wave 3 Cohort		
	A	B	C	A	B	C	A	B	C
Peabody Picture Vocabulary Test (PPVT)	X	X	X	X	X	X	X	X	X
Woodcock-Johnson III: Letter-Word Identification	X	X	X	X	X	X	X	X	X
Woodcock-Johnson III: Applied Problems	X	X	X	X	X	X	X	X	X
Woodcock-Johnson III: Quantitative Concepts				X	X	X	X	X	X
CATI Parent Questionnaire	X	X	X	X	X	X	X	X	X
PKBS-2	X	X	X	X	X	X			
SSRS							X	X	X
Early Childhood Teacher Questionnaire	X	X	X	X	X	X	X	X	X
Kindergarten Teacher Questionnaire	X	X	X	X	X	X	X	X	X
Elementary Teacher Questionnaire				X	X	X	X	X	X

## CHAPTER 4 RESULTS

This study examined the relationship of free-play activity choice, disability, and problem behaviors on the concurrent and later academic and social competence of preschool children. The purpose of this chapter is to present the findings of the study in relation to the research questions.

### **Frequency of Free-Play Activity Choice**

The first research question asks about the frequency of free-play activity choice for each age cohort. It was expected that free-play activity choice would differ by chronological age. Descriptive statistics were obtained on all variables. Frequency statistics were calculated in order to determine the first, second, and third most frequent child-directed activity during free-play. Statistics were derived across and within each cohort in order to address the first research question.

Children in the current study ( $n = 148$ ) choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys ( $n = 25$ ) as the most frequent activity choice during child-directed free-play (Fig. 4-1). The second-most frequent free-play activity choice is blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, other building toys ( $n = 10$ ) and the third-most frequent activity choice is sand and water play ( $n = 10$ ).

### **Disability**

Children with developmental delay ( $n = 96$ ) choose blocks, LEGOs<sup>®</sup>, or other building toys ( $n = 18$ ) as the most frequent activity choice during child-directed free-play (Fig. 4-2). Children with developmental delay choose blocks, LEGOs<sup>®</sup>, or other building toys as the second-most frequent activity choice ( $n = 9$ ) and choose sand and water

play ( $n = 7$ ) or commercial educational toys (e.g. Lite-Brite<sup>®</sup>, puzzles, sorting cups, bead stringing) ( $n = 6$ ) as the third-most frequent activity choice.

Children without disabilities ( $n = 52$ ) choose alphabet and language materials ( $n = 8$ ) as the most frequent activity choice during child-directed free-play followed by blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 7$ ) (Fig. 4-3). Children without disabilities choose counting and number materials as the second-most frequent activity choice ( $n = 5$ ) children's books and magazines as the third-most frequent activity choice ( $n = 5$ ).

### **Chronological Age**

Four-year-old children ( $n = 76$ ) choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 9$ ) as the most frequent activity choice during child-directed free-play followed by toy vehicles and work machines (e.g. cars, trains, trucks, backhoe loaders ( $n = 8$ )) (Table 4-1). Four-year-old children choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 5$ ) or a playhouse, toy kitchen, dishes, plastic food ( $n = 5$ ) or dress-up, costumes, puppets, theater props ( $n = 5$ ) as the second-most frequent activity choice. Four-year-old children choose paper, coloring books, crayons, pencils, pens ( $n = 5$ ) as the third-most frequent activity choice.

Five-year-old children ( $n = 72$ ) choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 16$ ) as the most frequent activity choice during child-directed free-play (Table 4-2). Five-year-old children choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 5$ ) or sand and water play ( $n = 5$ ) or alphabet and language materials ( $n = 5$ ) as the second-most frequent activity choice. Five-year-old children choose sand and water play ( $n = 6$ ) as the third-most frequent activity choice.

**Disability and age.** Four-year-old children with developmental delay ( $n = 51$ ) choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys most frequently during child-directed free-play, toy vehicles and work machines (e.g. cars, trains, trucks, backhoe loaders) as the second most frequent activity choice, and arts and crafts projects and materials, clay or Play Doh<sup>©</sup> the third most frequent activity choice (Table 4-1). Four-year-old children without disabilities ( $n = 25$ ) choose alphabet and language materials as the most frequent activity during free-play and a playhouse, toy kitchen, dishes, and plastic food as the second most frequent activity choice. No activity was indicated for the third most frequent activity choice (Table 4-1).

Five-year-old children with developmental delay ( $n = 45$ ) choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys as the most frequent activity choice during child-directed free-play and arts and crafts projects and materials, clay or Play Doh<sup>©</sup> as the second most frequent activity (Table 4-2). No activity was indicated for the third most frequent activity choice. Five-year-old children without disabilities ( $n = 27$ ) choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys as the most frequent activity choice during child-directed free-play, alphabet and language materials as the second most frequent activity choice, and children's books and magazines as the third most frequent activity choice (Table 4-2).

**Summary.** Children choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool. Children with developmental delay choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup> or other building toys more frequently during free-play in preschool and children without disabilities choose alphabet and language materials more frequently during free-play in preschool. Both four-year-old and five-year-old

children choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool. Both four-year-old children and five-year-old children with developmental delay choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool. Four-year-old children without disabilities choose alphabet and language materials more frequently during free-play in preschool and five-year-old children without disabilities choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool.

The more frequent choice of free-play activity by children with developmental delay (and by both four and five-year-old children with developmental delay) suggests a preference for constructive play activities. The more frequent choice of free-play activity by children without disabilities (and by four-year-old children without disabilities) suggests a preference for school-readiness activities. Five-year-old children without disabilities seemingly prefer constructive play activities before school readiness activities.

Children in both age cohorts were expected to choose free-play activities relative to their developmental age (i.e. constructive play activities in younger children versus dramatic play activities in older children). Results from this study suggest that children without disabilities differ by age in their most frequent activity choice during free-play in preschool. These results support the hypothesis that the most frequent free-play activity choice differs by chronological age of children without disabilities. Children with developmental delay do not differ by age in their most frequent activity choice. These results do not support the hypothesis pertaining to children with developmental delay in

that both four and five-year-old children choose the same activity more frequently during free-play.

### **Free-Play Activity Choice and Available Activities**

The second research question asked whether the frequency of free-play activity choice is related to the activities that are made available to the children, provided that some portion of time is spent in child-directed activities. It is expected that there will be a direct relationship between free-play activity choice and the activities available in the setting regardless of children's age. ANOVAs were performed in order to determine significant differences between the variables of free-play activity choice and activities available within the preschool setting across and within each cohort in order to answer the second research question.

There was no difference in type of program between the two age cohorts; hence any difference in free-play activity choice is unrelated to program type. There is not a significant difference between type of class (e.g. early childhood class with other children) ( $p = .728$ ) and the amount of time spent in child-directed activities ( $p = .150$ ). Hence any difference in free-play activity choice is unlikely to be related to either type of class or time spent in child-directed activities (Table 4-3). Children spent an average of 18.27 ( $SD = 18.64$ , min. = -1, max. = 75) hours weekly in child-directed activities, including free-play.

### **Chronological Age**

Four-year-old children spent an average of 29.26 ( $SD = 19.52$ , min. = -1, max. = 75) hours weekly in child-selected activities including free-play (Table 4-3). Four-year-old children with developmental delay ( $n = 33$ ) have an average of 20.364 ( $SD = 3.131$ , min. = 12, max. = 25) activities available for child-directed free-play and four-year-old

children without disabilities ( $n = 10$ ) have an average of 21.300 ( $SD = 2.359$ , min.= 17, max. = 25) activities available for child-directed free-play.

Five-year-old children spent an average of 8.54 hours ( $SD = 10.989$ , min = -1, max. = 44) weekly in child-selected activities including free-play (Table 4-3). Five-year-old children with developmental delay ( $n = 30$ ) have an average of 14.867 ( $SD = 4.224$ , min. = 6, max. = 23) activities available for child-directed free-play and five-year-old children without disabilities ( $n = 21$ ) have an average of 16.619 ( $SD = 4.653$ , min.= 8, max. = 25) activities available for child-directed free-play.

### **Disability**

The most frequent activities available for children with developmental delay ( $n = 98$ ) are arts and crafts projects and materials, clay or Play Doh<sup>®</sup> ( $n = 61$ ), Blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 61$ ), a playhouse, toy kitchen, dishes, plastic food ( $n = 60$ ), and children's books and magazines ( $n = 59$ ) (Table 4-4). The most frequent activities available for children without disabilities ( $n = 52$ ) are arts and crafts projects and materials, clay or Play Doh<sup>®</sup> ( $n = 31$ ), alphabet and language materials ( $n = 31$ ), children's books and magazines ( $n = 30$ ), blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 29$ ), and a playhouse, toy kitchen, dishes, plastic food ( $n = 29$ ) (Table 4-4).

**Disability and age.** The most frequent activities available for four-year-old children with developmental delay ( $n = 36$ ) are arts and crafts projects and materials, clay, or Play Doh<sup>®</sup> ( $n = 33$ ), blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 33$ ), a playhouse, toy kitchen, dishes, plastic food ( $n = 32$ ), children's books and magazines ( $n = 32$ ), paper, coloring books, crayons, pencils, pens ( $n = 32$ ), playground equipment

(e.g. climbing structure, swings, trikes, digging tools) ( $n = 32$ ), balls of various sizes, Nerf<sup>®</sup>-style toys, sports equipment ( $n = 32$ ), dolls and stuffed animals ( $n = 32$ ), commercial educational toys (e.g. Lite Brite<sup>®</sup>, puzzles, sorting cups, bead stringing) ( $n = 32$ ), and counting and number materials ( $n = 32$ ) (Table 4-4). Among four-year-old children with developmental delay, 91.67% have the most frequent activity choice (e.g. blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys), 86.11% have the second most frequent activity choice (e.g. toy vehicles and work machines such as cars, trains, trucks, backhoe loaders) and 91.67% have the third most frequent activity choice (e.g. arts and crafts projects and materials, clay or Play Doh<sup>®</sup>) available in their classroom.

The most frequent activities available for four-year-old children without disabilities are alphabet and language materials ( $n = 21$ ), children's books and magazines ( $n = 20$ ), blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 19$ ), a playhouse, toy kitchen, dishes, plastic food ( $n = 19$ ), computer and software ( $n = 19$ ), and flashcards ( $n = 19$ ) (Table 4-4). Among four-year-old children without disabilities, 100% have the most frequent activity choice (e.g. alphabet and language materials) and the second most activity choice (e.g. a playhouse, toy kitchen, dishes, plastic food) available in their classroom.

The most frequent activities available for five-year-old children with developmental delay ( $n = 30$ ) are blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup> or other building toys ( $n = 28$ ), a playhouse, toy kitchen, dishes, plastic food ( $n = 28$ ), and computer and software ( $n = 28$ ) (Table 4-4). Among five-year-old children with developmental delay, 93.33% have the most frequent activity choice (e.g. blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building

toys) and the second most frequent activity choice (e.g. arts and crafts projects and materials, clay or Play Doh<sup>®</sup>) available in their classroom.

The most frequent activities available for five-year-old children without disabilities ( $n = 21$ ) are alphabet and language materials ( $n = 21$ ), children's books and magazines ( $n = 20$ ), blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys ( $n = 19$ ), a playhouse, toy kitchen, dishes, plastic food ( $n = 19$ ), computer and software ( $n = 19$ ), and flashcards ( $n = 19$ ) (Table 4-4). Among five-year-old children without disabilities, 90.48% have the most frequent activity choice (e.g. blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys), 100% have the second most frequent activity choice (e.g. alphabet and language materials) and 95.24% have the third most frequent activity choice (e.g. children's books and magazines) available in their classrooms.

**Summary.** Free-play activity choice is unrelated to program type (e.g. Head Start), type of class (e.g. Early Childhood) or the amount of time spent in child-directed activities [ $F = 1.391$  (19, 26, ( $p = .214$ ))] (with the exception of five-year-old children). Four-year-old children spend more time in child-directed activities per week (29 hours) than five-year-old children (8 hours). Among five-year-old children, the most frequent free-play activity choice is related to the amount of time spent in child-directed activities [ $F = 4.547$ , 14, 37 ( $p < .001$ )].

Four-year-old children with developmental delay have fewer activities available for child-directed free-play (e.g. 20) than four-year-old children without disabilities (e.g. 21). Five-year-old children with developmental delay have fewer activities available for child-directed free-play (e.g. 15) than five-year-old children without disabilities (e.g. 17).

Children with developmental delay choose one of the most frequently available activities in the classroom (e.g. arts and crafts projects and materials, clay or Play Doh<sup>©</sup>, Blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys) more frequently during free-play in preschool. Children without disabilities choose one of the most frequently available activities (e.g. arts and crafts projects and materials, clay or Play Doh<sup>©</sup>, alphabet and language materials) more frequently during free-play in preschool.

Four-year-old children with development delay choose one of the most frequent activities (e.g. arts and crafts projects and materials, clay, or Play Doh<sup>©</sup>, blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys) available in the classroom more often during free-play in preschool. Free-play activity choice of four-year-old children with developmental delay [ $F = .753, 11, 21 (p = .680)$ ] is unrelated to the activities that are available in the classroom.

Four-year-old children without disabilities choose the most frequent activity (e.g. alphabet and language materials) available in the classroom more often during free-play in preschool. Free-play activity choice of four-year-old children without disabilities [ $F = .503, 5, 4 (p = .765)$ ] is unrelated to the activities that are available in the classroom. These results do not support the hypothesis because there is not a relationship between the most frequent free-play activity choice and the activities made available in the classroom.

Five-year-old children with developmental delay choose the most frequent activity available (e.g. blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys) more often during free-play in preschool. Among five-year-old children with developmental delay, free-play activity choice is significantly related to the activities that are available in the

classroom [ $F = 2.578, 14, 14 (p = .044)$ ]. These results support the hypothesis that there is a direct relationship between the frequency of free-play activity choice and the activities that are made available in the classroom.

Five-year-old children without disabilities choose the third most frequent activity available (e.g. alphabet and language materials, children's books and magazines blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys) more often during free-play in preschool. Among five-year-old children without disabilities, free-play activity choice is unrelated to the activities that are available in the classroom [ $F = 3.79, 11, 9 (p = .934)$ ]. These results do not support the hypothesis because there is not a relationship between the most frequent activity choice and the activities made available most frequently in the classroom.

### **Free-play Activity Choice and Social Skills**

The third research question asked whether there is a relationship between free-play activity choice in preschool and the display of social competence in preschool, kindergarten, 1<sup>st</sup> grade, and/or 2<sup>nd</sup> grade. It was expected that there would be a direct relationship between free-play activity choice in preschool and social competence in preschool, kindergarten, 1<sup>st</sup> grade, and 2<sup>nd</sup> grade. In order to address the research question, ANOVAs were performed on each of the dependent variables. Data on children's social cooperation, social interaction, and social independence skills indicated on the PKBS-2 served as the dependent variables in preschool and kindergarten. Data on gender-specific social skills indicated on the SSRS served as the dependent variables in 1<sup>st</sup> grade and 2<sup>nd</sup> grade. Higher ratings on these measures

indicate a higher degree of social competence. Disability and gender served as covariates.

## **Disability**

Among children with developmental delay ( $n = 96$ ), free-play activity choice in preschool is related to social cooperation skills in preschool [ $F = 2.139, 14, 52$  ( $p = .024$ )] and social independence skills in kindergarten [ $F = 2.650, 13, 38$  ( $p = .010$ )] (Table 4-5). That is, children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys most frequently during child-directed free-play in preschool display average social cooperation skills ( $M = 103.17, SD = 13.008$ ) in preschool and average social independence skills ( $M = 100.43, SD = 13.461$ ) in kindergarten. These results could not be compared to those of children without disabilities because children without disabilities choose alphabet and language materials more frequently than blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys during child-directed free-play.

Among children without disabilities ( $n = 52$ ), free-play activity choice in preschool is related to boys' social skills in 1<sup>st</sup> grade [ $F = 9.014, 5, 8$  ( $p = .004$ )] (Table 4-5). That is, boys without disabilities who choose alphabet and language materials most frequently during child-directed free-play in preschool display high average social skills in 1<sup>st</sup> grade ( $M = 107.75, SD = 7.805$ ). These results could not be compared to results of boys with developmental delay because boys with developmental delay choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently than alphabet and language materials during child-directed free-play.

## Chronological Age

Among four-year-old children ( $n = 76$ ), free-play activity choice in preschool is related to social cooperation skills in preschool [ $F = 2.741, 11, 34 (p = .012)$ ]. That is, four-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during child-directed free-play in preschool display average social cooperation skills in preschool ( $M = 106.44, SD = 11.035$ ). Social cooperation skills in preschool of four-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys during child-directed free-play are comparable to results of five-year-old children who choose the same activity during child-directed free-play.

Among five-year-old children ( $n = 72$ ), free-play activity choice in preschool is related to social cooperation skills in preschool [ $F = 2.126, 12, 39 (p = .038)$ ], social interaction skills in preschool [ $F = 2.939, 12, 39 (p = .005)$ ], social independence skills in preschool [ $F = 2.909, 12, 39 (p = .006)$ ], and social independence skills in kindergarten [ $F = 2.549, 12, 32 (p = .017)$ ]. That is, five-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during child-directed free-play in preschool display average social cooperation skills in preschool ( $M = 101.19, SD = 16.558$ ), low average social interaction skills in preschool ( $M = 88.19, SD = 17.015$ ), average social independence skills in preschool ( $M = 92.06, SD = 17.125$ ), and average social independence skills in kindergarten ( $M = 100.86, SD = 13.231$ ).

**Disability and age.** Among four-year-old children with developmental delay ( $n = 51$ ), the most frequent activity choice in preschool is related to social cooperation skills in preschool [ $F = 2.994, 10, 25 (p = .013)$ ] (Table 4-6). That is, four-year-old children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys

more frequently during child-directed free-play display average social cooperation skills in preschool ( $M = 104.75$ ,  $SD = 10.471$ ). These results could not be compared to results of four-year-old children without disabilities because four-year-old children without disabilities choose alphabet and language materials more frequently than blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys during child-directed free-play. Among four-year-old children without disabilities ( $n = 25$ ), the most frequent activity choice during child-directed free-play in preschool is unrelated to social cooperation skills, social interaction skills, and social independence skills in preschool and kindergarten, and boys' or girls' social skills in 1<sup>st</sup> grade and/or in 2<sup>nd</sup> grade.

Among five-year-old children with developmental delay ( $n = 45$ ), the most frequent activity choice in preschool is related to social cooperation skills in preschool [ $F = 2.696$ , 10, 20 ( $p = .028$ )], social interaction skills in preschool [ $F = 3.180$ , 10, 20 ( $p = .013$ )], social independence skills in preschool [ $F = 2.596$ , 10, 20 ( $p = .033$ )], and social independence skills in kindergarten [ $F = 3.904$ , 9, 15 ( $p = .010$ )] (Table 4-6). That is, five-year-old children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys most frequently during child-directed free-play in preschool display average social cooperation skills ( $M = 101.90$ ,  $SD = 15.176$ ), low average social interaction skills ( $M = 86.40$ ,  $SD = 15.116$ ), average social independence skills in preschool ( $M = 91.60$ ,  $SD = 15.284$ ), and average social independence skills in kindergarten ( $M = 98.50$ ,  $SD = 12.212$ ). Results of five-year-old children with developmental delay are comparable to results of five-year-old children without disabilities. Five-year-old children without disabilities who choose the same activity as five-year-old children with developmental delay, display average social

cooperation skills ( $M = 100.00$ ,  $SD = 20.130$ ), average social interaction skills ( $M = 91.17$ ,  $SD = 10.980$ ), and average social independence skills in preschool ( $M = 92.83$ ,  $SD = 21.405$ ), and average social independence skills in kindergarten ( $M = 104.00$ ,  $SD = 15.020$ ). Among five-year-old children without disabilities ( $n = 27$ ), activity choice during child-directed free-play in preschool is unrelated to social cooperation skills, social interaction skills, and social independence skills in preschool and kindergarten, and boys' or girls' social skills in 1<sup>st</sup> grade and/or in 2<sup>nd</sup> grade.

**Summary.** The research question asks about the relationship between free-play activity choice in preschool and the display of social competence. Results of children with developmental delay provide support for a relationship between free-play activity choice in preschool and social cooperation skills in preschool and social independence skills in kindergarten. Results of children with developmental delay are comparable to results of children without disabilities who choose the same activity as children with developmental delay during child-directed free-play in preschool. Results of children without disabilities provide support for a relationship between free-play activity choice in preschool and boys' social skills in 1<sup>st</sup> grade. These results were not compared to those of children with developmental delay.

Results of four-year-old children and four-year-old children with developmental delay provide support for a relationship between free-play activity choice in preschool and social cooperation skills in preschool. These results were not compared to those of children without disabilities. Results of four-year-old children without disabilities do not provide support for a relationship between free-play activity choice in preschool and

social cooperation skills, social interaction skills, and social independence skills in preschool and boys' or girls' social skills in 1<sup>st</sup> grade and 2<sup>nd</sup> grade.

Results of five-year-old children and five-year-old children with developmental delay provide support for a relationship between free-play activity choice in preschool and social cooperation skills, social interaction skills, and social independence skills in preschool, and social independence skills in kindergarten. Results of five-year-old children and five-year-old children with disabilities do not provide support for a relationship between free-play activity choice in preschool and social cooperation skills, social interaction skills, and social independence skills in preschool and kindergarten, and boys' or girls' social skills in 1<sup>st</sup> grade and 2<sup>nd</sup> grade. Results of five-year-old children with developmental delay are comparable to results of five-year-old children without disabilities who choose the same activity as five-year-old children with developmental delay during child-directed free-play.

It was expected that there would be a direct relationship between free-play activity choice in preschool and social competence in preschool, kindergarten, 1<sup>st</sup> grade, and 2<sup>nd</sup> grade. Results of children with developmental delay, children without disabilities, four-year-old children, five-year-old children, four-year-old children with developmental delay, four-year-old children without disabilities, five-year-old children with developmental delay, and five-year-old children without disabilities, do not support the hypothesis in that a relationship between free-play activity choice and social competence could not be demonstrated on all measures in preschool or all measures in kindergarten, and could not be demonstrated on either measure in 1<sup>st</sup> grade or 2<sup>nd</sup> grade.

## Free-Play Activity Choice and Problem Behavior

The fourth research question asks about the relationship between free-play activity choice in preschool and children's problem behaviors in preschool, kindergarten, 1<sup>st</sup> grade, and/or 2<sup>nd</sup> grade. ANOVAs were performed on each of the dependent variables to address the research question. Externalizing problems and internalizing problems indicated on the PKBS-2 served as the dependent variables in preschool and kindergarten, and gender-specific problem behaviors indicated on the SSRS served as the dependent variables in 1<sup>st</sup> grade and 2<sup>nd</sup> grade. Higher ratings on these measures indicate a higher degree of problem behaviors. Disability and gender served as covariates. A direct relationship between free-play activity choice in preschool and problem behaviors in preschool, kindergarten, 1<sup>st</sup> grade and 2<sup>nd</sup> grade is expected.

### Disability

Among children with developmental delay ( $n = 96$ ), the most frequent free-play activity choice in preschool is related to externalizing problems in preschool [ $F = 2.927, 14, 52$  ( $p = .002$ )], internalizing problems in preschool [ $F = 2.243, 14, 52$  ( $p = .018$ )], and internalizing problems in kindergarten [ $F = 2.164, 13, 38$  ( $p = .032$ )] (Table 4-7). That is, children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently during free-play in preschool display average externalizing problems in preschool ( $M = 93.78, SD = 11.715$ ), average internalizing problems in preschool ( $M = 97.94, SD = 12.781$ ), and average internalizing problems in kindergarten ( $M = 91.43, SD = 11.554$ ). These results could not be compared to those of children without disabilities because children without disabilities choose alphabet and language

materials more frequently than blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys during child-directed free-play.

Among children without disabilities ( $n = 52$ ), free-play activity choice in preschool is related to internalizing problems in preschool [ $F = 2.632, 11, 19 (p = .031)$ ] and boys' problem behaviors in 1<sup>st</sup> grade,  $r = .755$  [ $F = 5.261, 5, 8 (p = .020)$ ] (Table 4-7). That is, children without disabilities who choose alphabet and language materials more frequently during free-play in preschool display an average degree of internalizing problems in preschool ( $M = 91.29, SD = 13.060$ ). Boys without disabilities who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display an average degree of problem behaviors in 1<sup>st</sup> grade ( $M = 102.20, SD = 10.545$ ). These results are comparable to the results of boys with developmental delay. Boys with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display an average degree of problem behaviors in 1<sup>st</sup> grade ( $M = 103.80, SD = 16.794$ ).

### **Chronological Age**

Among four-year-old children ( $n = 76$ ), free-play activity choice in preschool is related to externalizing problems in preschool [ $F = 2.833, 11, 34 (p = .010)$ ] and internalizing problems in preschool [ $F = 2.440, 11, 34 (p = .023)$ ]. That is, four-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display an average degree of externalizing problems in preschool ( $M = 87.33, SD = 9.734$ ) and an average degree of internalizing problems in preschool ( $M = 89.44, SD = 10.944$ ). Results of four-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys and display an average degree of

internalizing problems in preschool are comparable to those results of five-year-old children who choose the same activity during child-directed free-play.

Among five-year-old children ( $n = 72$ ), free-play activity choice in preschool is related to internalizing problems in preschool [ $F = 2.317, 12, 39 (p = .024)$ ]. That is, five-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently during free-play in preschool display an average degree of internalizing problems in preschool ( $M = 99.81, SD = 12.771$ ).

**Disability and age.** Among four-year-old children with developmental delay ( $n = 51$ ), the most frequent free-play activity choice (e.g. blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys) in preschool is related to externalizing problems in preschool [ $F = 2.786, 10, 25 (p = .018)$ ] and internalizing problems in preschool [ $F = 3.237, 10, 25 (p = .008)$ ] (Table 4-8). That is, four-year-old children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys most frequently during free-play in preschool display an average degree of externalizing problems in preschool ( $M = 88.50, SD = 9.710$ ) and an average degree of internalizing problems in preschool ( $M = 91.00, SD = 10.583$ ). These results could not be compared to those of four-year-old children without disabilities because four-year-old children without disabilities choose alphabet and language materials more frequently than blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys during child-directed free-play. Among four-year-old children without disabilities ( $n = 25$ ), the most frequent activity choice during free-play in preschool is unrelated to internalizing and externalizing problems in preschool and in kindergarten, gender-specific problem behaviors in 1<sup>st</sup> grade, and gender-specific problem behaviors in 2<sup>nd</sup> grade (Table 4-8).

Among five-year-old children with developmental delay ( $n = 45$ ) and five-year-old children without disabilities ( $n = 27$ ), the most frequent free-play activity choice in preschool is unrelated to internalizing and externalizing problems in preschool and in kindergarten, gender-specific problem behaviors in 1<sup>st</sup> grade, and gender-specific problem behaviors in 2<sup>nd</sup> grade (Table 4-8).

**Summary.** The research question asks about the relationship between free-play activity choice in preschool and children's problem behaviors in preschool, kindergarten, 1<sup>st</sup> grade, and 2<sup>nd</sup> grade. Results of children with developmental delay provide support for a relationship between free-play activity choice in preschool and externalizing and internalizing problems in preschool, and internalizing problems in kindergarten. These results are comparable to results of children without disabilities who choose the same activity during child-directed free-play. Results of children without disabilities provide support for a relationship between free-play activity choice in preschool and internalizing problems in preschool and boys' problem behaviors in 1<sup>st</sup> grade. These results were not compared to those of children with developmental delay.

Results of four-year-old children provide support for a relationship between free-play activity choice in preschool and externalizing problems in preschool and internalizing problems in preschool. Results of five-year-old children provide support for a relationship between free-play activity choice in preschool and internalizing problems in preschool.

Results of four-year-old children without disabilities, five-year-old children with developmental delay, and five-year-old children without disabilities do not support the hypothesis in that free-play activity choice in preschool is unrelated to externalizing and

internalizing problems in preschool, externalizing and internalizing problems in kindergarten, and gender-specific problem behavior in 1<sup>st</sup> grade and in 2<sup>nd</sup> grade.

A direct relationship between free-play activity choice in preschool and problem behaviors in preschool, kindergarten, 1<sup>st</sup> grade, and 2<sup>nd</sup> grade was expected. Results of children with developmental delay, children without disabilities, four-year-old children, five-year-old children, four-year-old children with developmental delay, four-year-old children without disabilities, five-year-old children with developmental delay, and five-year-old children without disabilities do not support the hypothesis in that a relationship between free-play activity choice and problem behaviors could not be demonstrated on all measures in preschool or all measures in kindergarten, and could not be demonstrated on either measure in 1<sup>st</sup> grade or 2<sup>nd</sup> grade.

### **Disability, Problem Behavior, and Social and Academic Competence**

It was expected that children with developmental delay and problem behaviors would display less social and academic competence than children without disabilities and without problem behaviors. Problem behaviors were defined by standard scores (derived either in preschool and/or kindergarten) on the PKBS-2 Internalizing and/or Externalizing Scales greater than 1 *SD* above the mean (116 and higher). No problem behaviors were defined by standard scores (derived either in preschool and/or kindergarten) on the PKBS-2 Internalizing and/or Externalizing Scales less than 1 *SD* below the mean (84 and lower). Free-play activity choice in preschool of five-year-old children with developmental delay and with problem behaviors ( $n = 16$ ), five-year-old children without disabilities and without problem behaviors ( $n = 16$ ), four-year-old children with developmental delay and problem behaviors ( $n = 9$ ), and four-year-old

children without disabilities and without problem behaviors ( $n = 4$ ) was not explored due to size of sample.

### **Free-Play Activity Choice and Temperament of Preschool Children**

The fifth research question asks about the relationship between free-play activity choice and temperament qualities of preschool children with and without problem behaviors. Problem behaviors were defined by standard scores (derived either in preschool and/or kindergarten) on the PKBS-2 Internalizing and/or Externalizing Scales greater than 1 *SD* above the mean (116 and higher). No problem behaviors were defined by standard scores (derived either in preschool and/or kindergarten) on the PKBS-2 Internalizing and/or Externalizing Scales less than 1 *SD* below the mean (84 and lower).

### **Disability**

Among children with developmental delay ( $n = 96$ ), free-play activity choice is related to the quality of getting involved easily [ $F = 3.610, 2, 64 (p = .033)$ ] (Table 4-9). That is, children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool are more likely to display the quality of getting involved easily. Among children without disabilities ( $n = 52$ ), the most frequent free-play activity choice in preschool is unrelated to temperament qualities (Table 4-9).

### **Problem Behaviors**

Among children with problem behaviors ( $n = 42$ ) and children without problem behaviors ( $n = 59$ ), the most frequent free-play activity choice in preschool is unrelated to temperament qualities.

**Disability and problem behaviors.** Among children with developmental delay and problem behaviors ( $n = 33$ ), free-play activity choice in preschool is related to the quality of having difficulty with change [ $F = 3.730, 2, 16 (p = .047)$ ] (Table 4-10). That is, children with developmental delay and problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently are more likely to display the quality of having difficulty with change. Among children without disabilities and with problem behaviors ( $n = 9$ ), the relationship of free-play activity choice in preschool and temperament was not explored due to size of sample (Table 4-10).

Among children with developmental delay and without problem behaviors ( $n = 33$ ), free-play activity choice in preschool is related to the quality of enjoying to do things on his/her own [ $F = 4.192, 2, 28 (p = .026)$ ] (Table 4-10). That is, children with developmental delay and without problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys during free-play in preschool are more likely to display the quality of enjoying to do things on his/her own than the other 8 qualities of temperament (e.g. being quiet and passive, being jumpy and easily startled, paying attention/staying focused, being very active and restless, trying to finish things, being distracted by sights/sounds, having difficulty with change, being anxious/depressed often). Among children without disabilities and without problem behaviors ( $n = 26$ ) free-play activity choice in preschool is unrelated to temperament qualities (Table 4-10).

**Summary.** The research question asks about the relationship between free-play activity choice in preschool and temperament qualities of children with and without problem behaviors. The results of children without problem behaviors and children with developmental delay and problem behaviors provide support of a relationship between

free-play activity choice and the temperament quality of paying attention/staying focused. The results of children with developmental delay and without problem behaviors provide support of a relationship between free-play activity choice and the temperament qualities of being quiet and passive and/or paying attention/staying focused. The results of children with developmental delay, children without disabilities, and children with problem behaviors do not provide support for a relationship because free-play activity choice in preschool is unrelated to temperament qualities.

### **Free-Play Activity Choice and Academic Competence**

The sixth research question asks to what extent free-play activity choice in preschool predicts student achievement in preschool, kindergarten, and 1<sup>st</sup> grade. The achievement in preschool, kindergarten, and first grade of children with developmental delay and problem behaviors is expected to differ by free-play activity choice during preschool.

#### **Disability**

Among children with developmental delay ( $n = 98$ ), free-play activity choice in preschool is related to receptive vocabulary skills in preschool [ $F = 1.952, 14, 28$  ( $p = .044$ )] (Table 4-11). That is, children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display average receptive vocabulary skills in preschool ( $M = 92.367, SD = 11.648$ ). These results could not be compared with those of children without disabilities because children without disabilities choose alphabet and language materials more frequently than blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys during free-play.

Free-play activity choice in preschool of children without disabilities ( $n = 52$ ) is related to receptive vocabulary skills in kindergarten [ $F = 2.842, 11, 13 (p = .038)$ ] (Table 4-11). That is, children without disabilities who choose alphabet and language materials more frequently during free-play in preschool display average receptive vocabulary skills in kindergarten ( $M = 96.379, SD = 5.442$ ). These results could not be compared with those of children with developmental delay because children with developmental delay choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently than alphabet and language materials during free-play.

### **Chronological Age**

Free-play activity choice in preschool of four-year-old children ( $n = 76$ ) is related to applied problems in 1<sup>st</sup> grade [ $F = 4.622, 11, 28 (p = .001)$ ] (Table 4-11). That is, four-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys during free-play in preschool display below average applied problems skills in 1<sup>st</sup> grade ( $M = 84.50, SD = 9.975$ ). These results are comparable (i.e. within 1  $SD$ ) to those of five-year-old children who choose the same activity during free-play. Five-year-old children who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys during free-play in preschool display average applied problems skills in 1<sup>st</sup> grade ( $M = 96.75, SD = 19.018$ ). Free-play activity choice in preschool of five-year-old children ( $n = 72$ ) is unrelated to student achievement (Table 4-11).

**Disability and age.** Among four-year-old children with developmental delay ( $n = 51$ ), free-play activity choice is related to applied problems skills in 1<sup>st</sup> grade [ $F = 4.480, 8, 22 (p = .002)$ ] (Table 4-12). That is, four-year-old children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys display average applied

problems skills in 1<sup>st</sup> grade ( $M = 92.00$ ,  $SD = 13.614$ ). These results could not be compared to those of four-year-old children without disabilities because four-year-old children without disabilities choose alphabet and language materials more frequently than blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys during free-play.

Among four-year-old children without disabilities ( $n = 25$ ), free-play activity choice is related to receptive vocabulary skills in kindergarten [ $F = 28.535$ , 6, 2 ( $p = .034$ )] (Table 4-12). That is, four-year-old children without disabilities who choose alphabet and language materials more frequently during child-directed free-play in preschool display average receptive vocabulary skills in kindergarten ( $M = 94.66$ ,  $SD = 2.505$ ). These results could not be compared to those of four-year-old children with developmental delay because four-year-old children with developmental delay choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently than alphabet and language materials during free-play. Free-play activity choice in preschool of five-year old children with developmental delay ( $n = 45$ ) and five-year old children without disabilities ( $n = 27$ ) is unrelated to academic competence (Table 4-12).

### **Problem Behaviors**

Free-play activity choice in preschool of children with problem behaviors ( $n = 42$ ) is related to letter-word identification skills in kindergarten [ $F = 4.611$ , 9, 10 ( $p = .013$ )] (Table 4-11). That is, children with problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently during free-play in preschool display average letter-word identification skills in kindergarten ( $M = 92.75$ ,  $SD = 6.076$ ). These results are comparable to those of children without problem behaviors who choose the same activity during free-play. Children without problem behaviors who choose blocks,

LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys during free-play in preschool display average letter-word identification skills in kindergarten ( $M = 99.08$ ,  $SD = 13.708$ ). Free-play activity choice of children without problem behaviors ( $n = 59$ ) is unrelated to student achievement (Table 4-11).

**Disability and problem behaviors.** Free-play activity choice in preschool of children with developmental delay and with problem behaviors ( $n = 33$ ) is related to receptive language skills in preschool [ $F = 3.971$ ,  $9, 7$  ( $p = .041$ )] (Table 4-13). That is, children with developmental delay and with problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently during free-play in preschool display average receptive language skills in preschool ( $M = 94.963$ ,  $SD = 8.478$ ). These results could not be compared with those of children without disabilities and without problem behaviors because children without disabilities and without problem behaviors choose alphabet and language materials more frequently than blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup> or other building toys during free-play.

Free-play activity choice in preschool of children without disabilities and without problem behaviors ( $n = 26$ ) is related to receptive vocabulary skills in kindergarten [ $F = 3.530$ ,  $7, 8$  ( $p = .049$ )] (Table 4-13). That is, children without disabilities and without problem behaviors who choose alphabet and language materials more frequently during free-play in preschool display average receptive language skills in kindergarten ( $M = 94.125$ ,  $SD = 7.906$ ). These results could not be compared with those of children with developmental delay and with problem behaviors because children with developmental delay and with problem behaviors choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup> or other building toys more frequently than alphabet and language materials during free-play.

**Chronological age and problem behaviors.** Free-play activity choice in preschool of four-year-old children with problem behaviors ( $n = 10$ ) could not be explored due to size of sample. Free-play activity choice in preschool of four-year-old children without problem behaviors ( $n = 24$ ) is related to applied problems skills in preschool [ $F = 4.311, 7, 12 (p = .031)$ ] (Table 4-14). That is, four-year-old children without problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display average applied problems skills in preschool ( $M = 99.29, SD = 8.379$ ). These results are comparable with those of five-year-old children with problem behaviors who choose the same activity during free-play. Five-year-old children with problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display average applied problems skills in preschool ( $M = 89.00, SD = 9.902$ ) (Table 4-14).

Free-play activity choice in preschool of five-year-old children with problem behaviors ( $n = 21$ ) is related to letter-word identification skills in kindergarten [ $F = 5.088, 5, 6 (p = .036)$ ](Table 4-14). That is, five-year-old children with problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display average letter-word identification skills in kindergarten ( $M = 92.75, SD = 6.076$ ). These results are comparable with those of four-year-old children without problem behaviors who choose the same activity during free-play. Four-year-old children without problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys more frequently during free-play in preschool display average letter-word identification skills in kindergarten ( $M = 96.32, SD = 10.505$ ) (Table 4-14).

Free-play activity choice in preschool of five-year-old children without problem behaviors ( $n = 30$ ) is unrelated to receptive language skills in preschool, kindergarten, and 1<sup>st</sup> grade, letter-word identification skills in preschool, kindergarten, and 1<sup>st</sup> grade, applied problems skills in preschool, kindergarten, and 1<sup>st</sup> grade, and quantitative concepts skills in kindergarten and 1<sup>st</sup> grade (Table 4-14).

**Disability, age, and problem behaviors.** Free-play activity choice in preschool of four-year-old children with developmental delay and with problem behaviors ( $n = 9$ ), four-year-old children with developmental delay and without problem behaviors ( $n = 15$ ), four-year-old children without disabilities and with problem behaviors ( $n = 2$ ), and four-year-old children without disabilities and without problem behaviors ( $n = 4$ ) could not be explored due to size of sample. Free-play activity choice in preschool of five-year-old children with developmental delay and with problem behaviors ( $n = 16$ ), five-year-old children with developmental delay and without problem behaviors ( $n = 4$ ), five-year-old children without disabilities and with problem behaviors ( $n = 5$ ), and five-year-old children without disabilities and without problem behaviors ( $n = 14$ ) could not be explored due to size of sample.

**Summary.** The research question asks whether free-play activity choice in preschool is predictive of academic competence (e.g. student achievement in preschool, kindergarten, and 1<sup>st</sup> grade). Free-play activity choice in preschool of children with developmental delay is related to receptive vocabulary skills in preschool. These results were not compared to those of children without disabilities. Free-play activity choice in preschool of children without disabilities is related to receptive

vocabulary skills in kindergarten. These results were not compared to those of children with developmental delay.

Free-play activity choice in preschool of four-year-old children is related to applied problems in 1<sup>st</sup> grade. These results were comparable with those of five-year-old children who choose the same activity during free-play. Free-play activity choice in preschool of four-year-old children with developmental delay is related to applied problems skills in 1<sup>st</sup> grade. These results were comparable with those of five-year-old children without disabilities.

Free-play activity choice in preschool of children with problem behaviors is related to letter-word identification skills in kindergarten. These results were comparable with those of children without problem behaviors. Free-play activity choice in preschool of children with developmental delay and with problem behaviors is related to receptive vocabulary skills in preschool. These results were not compared to those of children without disabilities and without problem behaviors.

Free-play activity choice in preschool of children without disabilities and without problem behaviors is related to receptive vocabulary skills in kindergarten. These results were not compared to those of children with developmental delay and with problem behaviors. Free-play activity choice in preschool of five-year-old children with problem behaviors is related to letter-word identification skills in kindergarten. These results were comparable with those of four-year-old children without problem behaviors who choose the same activity during free-play.

Free-play activity choice in preschool of four-year-old children without problem behaviors is related to applied problems skills in preschool. These results were

comparable with those of five-year-old children with problem behaviors who choose the same activity during free-play.

Results from this study provide support for a relationship between free-play activity choice and academic achievement in receptive vocabulary skills, letter-word identification skills, and applied problems skills among the following groups of children: children with developmental delay; children without disabilities; four-year-old children; four year old children with developmental delay; children with problem behaviors; children with developmental delay and with problem behaviors; children without disabilities and without problem behaviors; five-year-old children with problem behaviors; and four-year-old children without problem behaviors.

Free-play activity choice in preschool of five-year-old children, five-year-old children with developmental delay, five-year-old children without disabilities, children without problem behaviors, five-year-old children without problem behaviors, and children with developmental delay and problem behaviors is unrelated to academic competence. These results do not provide support of a relationship between free-play activity choice and academic competence.

Academic competence of children with developmental delay and problem behaviors is expected to differ by free-play activity in preschool. Results from the current study do not support the hypothesis because free-play activity choice in preschool of children with developmental delay and problem behaviors is unrelated to academic competence.

Table 4-1. Most Frequent Activity Choice of Four Year-Old Children

Most Frequent Activity Choice	Disability						Gender			
			Developmental Delay		N/A		M		F	
	Freq.	%	Choice	Freq.	Choice	Freq.	Choice	Freq.	Choice	Freq.
2	9	20	2	8	29	3	2	8	4	3
14	8	17	14	7	4	2	14	4	5	3
4	7	15	1	6			1	2	1	2
1	6	13	4	5			29	2		
<b>Total:</b>	<b>30</b>	<b>65</b>								

1 = arts & crafts projects & materials, clay or Play Doh<sup>®</sup>; 2 = blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, other building toys; 4 = playhouse, toy kitchen, dishes, plastic food; 5 = dress-up, costumes, puppets, theater props; 14 = toys: vehicles & work machines-cars, trains, trucks, backhoe loaders; 29 = alphabet & language materials  
 N/A = Without Disabilities

Table 4-2. Most Frequent Activity Choice of Five Year-Old Children

Most Frequent Activity Choice	Disability						Gender			
			Developmental Delay		N/A		M		F	
	Freq.	%	Choice	Freq.	Choice	Freq.	Choice	Freq.	Choice	Freq.
2	16	31	2	10	2	6	2	7	0	2
1	7	14	1	6	29	5				
0	5	10	0	3	6	3				
3	5	10			0	2				
29	5	10			8	2				
<b>Total:</b>	<b>38</b>	<b>73</b>								

1 = arts & crafts projects & materials, clay or Play Doh<sup>®</sup>; 2 = blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, other building toys; 3 = sand and water play; 6 = children's books and magazines; 8 = paper, coloring books, crayons, pencils, pens; 29 = alphabet & language materials  
 N/A = Without Disabilities

Table 4-3. Time Spent in Child-Selected Activities and Type of Class

Free-Play Activity By Setting	Four Year-Olds		Five Year-Olds	
	%	# Hours	%	# Hours
Head Start Program	100.00	----	100.00	----
Early Childhood Class	61.00	----	41.00	----
Child-Selected Activities	----	29.26	----	8.54
Adult-Directed Individual Activities	----	7.88	----	4.03
Data Unavailable	28.00		40.00	

Table 4-4. Number of Children with Activity Available in the Classroom

Free-Play Activity Available	With DD (n = 98)	W/O Disabilities (n = 52)	Four Year-Olds		Five Year-Olds	
			With DD (n = 36)	W/O Disabilities (n = 10)	With DD (n = 30)	W/O Disabilities (n = 21)
Arts and crafts projects and materials, clay or Play Doh <sup>©2,3</sup>	61	31	33	18	27	18
Blocks, LEGOs <sup>®</sup> , K'NEX <sup>©</sup> , other building toys <sup>1,2</sup>	61	29	33	19	28	19
Sand and water play <sup>2</sup>	38	15	26	6	12	6
Playhouse, toy kitchen, dishes, plastic food	60	29	32	19	28	19
Dress-up, costumes, puppets, theater props	55	23	31	13	24	13
Children's books and magazines <sup>3</sup>	59	30	32	20	27	20
Sensory table (e.g. cornmeal, beans and other tactile materials)	41	12	31	6	10	6
Paper, coloring books, crayons, pencils, pens	46	25	32	15	14	15
Playground equipment (e.g. climbing structure, swings, trikes, or bikes, digging tools)	49	23	32	13	16	13
Balls (of various size), Nerf <sup>©</sup> -style toys, sports equipment	50	25	32	16	18	16
Computer and software	52	28	24	19	28	19
Video games	19	11	1	10	18	10
Board games	32	16	25	9	7	9

Table 4-4. Continued

Free-Play Activity Available	With DD (n = 98)	W/O Disabilities (n = 52)	Four –Year-Olds		Five-Year-Olds	
			With DD (n = 36)	W/O Disabilities (n = 10)	With DD (n = 30)	W/O Disabilities (n = 21)
Toy vehicle and work machines (e.g. cars, trains, trucks, backhoe loaders) <sup>2</sup>	41	23	31	13	10	13
Commercial toys (e.g. action figures, Barbie <sup>®</sup> )	17	10	13	6	4	6
Commercial educational toys (e.g. Lite Brite <sup>®</sup> , puzzles, sorting cups, bead stringing) <sup>3</sup>	57	28	32	18	25	18
Musical instruments	43	18	25	13	18	8
Tape or CD player with tapes and CDs	58	28	31	18	27	18
Nap/rest time	29	13	9	4	20	9
Commercial television/videotapes	16	9	11	6	5	6
Educational television/videotapes	24	21	16	13	8	13
Flashcards	34	23	16	19	18	19
Counting and number materials <sup>2</sup>	43	26	32	16	11	16
Alphabet and language materials <sup>1,2</sup>	51	31	31	21	20	21

<sup>1</sup>Most frequent activity choice; <sup>2</sup>Second most frequent activity choice; <sup>3</sup>Third most frequent activity choice

Table 4-5. Free-Play Activity Choice and Social Skills of Children with Developmental Delay (DD) and Without Disabilities

Free-Play Activity Choice By	With DD <sup>1</sup> ( <i>n</i> = 96)		W/O Disabilities <sup>1</sup> <i>n</i> = 52)	
	<i>M/SD</i>	<i>p</i>	<i>M/SD</i>	<i>p</i>
Social Cooperation Preschool	103.17/13.008	.024*	108.25/12.937	.663
Social Interaction - Preschool	91.89/15.811	.101	101.00/12.154	.678
Social Independence - Preschool	94.78/15.039	.079	109.00/ 9.071	.418
Social Cooperation Kindergarten	103.00/14.115	.652	104.38/15.231	.374
Social Interaction – Kindergarten	94.21/14.380	.272	100.25/13.698	.271
Social Independence – Kindergarten	100.43/13.461	.010*	102.63/14.458	.079
Boys’ Social Skills - 1 <sup>st</sup> Grade	92.21/15.258	.974	107.75/7.805	.004*
Girls’ Social Skills - 1 <sup>st</sup> Grade	72.000	.947	107.33/20.404	.506
Boys’ Social Skills - 2 <sup>nd</sup> Grade	95.40/17.125	.172	113.75/6.400	.434
Girls’ Social Skills - 2 <sup>nd</sup> Grade	78.000	.335	97.67/16.197	.808

\*.05 level of significance

<sup>1</sup>Most frequent activity choice = blocks, LEGOs<sup>®</sup>, K’NEX<sup>®</sup>, or other building toys

Table 4-6. Free-Play Activity Choice and Social Skills of Four and Five-Year-Olds

Free-Play Activity Choice By	Five-year-olds with DD (n = 45)		Five-year-olds w/o disabilities (n = 27)		Four-year-olds with DD (n = 51)		Four-year-olds w/o disabilities (n = 25)	
	M/SD	p	M/SD	p	M/SD	p	M/SD	p
Social Cooperation – Preschool	101.90/15.176	.028*	100.00/20.130	.615	104.75/10.471	.013*	101.33/14.640	.666
Social Interaction - Preschool	86.40/15.116	.013*	91.17/20.980	.603	98.75/14.714	.064	104.00/12.490	.370
Social Independence - Preschool	91.60/15.284	.033*	92.83/21.405	.329	98.75/14.714	.064	104.00/12.490	.370
Social Cooperation – Kindergarten	102.63/17.113	.473	114.33/5.538	.396	----	----	----	----
Social Interaction – Kindergarten	90.50/ 15.766	.347	101.67/18.206	.696	----	----	----	----
Social Independence – Kindergarten	98.50/12.212	.010*	104.00/15.020	.550	----	----	----	----
Boys' Social Skills - 1 <sup>st</sup> Grade	80.63/ 37.902	.511	81.80/46.494	.120	92.14/ 9.873	.885	113.00/ 5.657	.173
Girls' Social Skills - 1 <sup>st</sup> Grade	8.13/ 25.809	.418	15.60/37.119	.092	----	.973	125.00	----
Boys' Social Skills - 2 <sup>nd</sup> Grade	81.22/ 33.988	.559	102.33/24.379	.715	99.86/19.187	.329	116.00/9.899	.303
Girls' Social Skills - 2 <sup>nd</sup> Grade	7.78/ 26.333	.308	82.00	.770	----	.550	108.00	----

\*.05 level of significance

Table 4-7. Free-Play Activity Choice and Problem Behaviors of Children With Developmental Delay (DD) and Without Disabilities

Free-Play Activity Choice By	With DD ( <i>n</i> = 96)		W/O Disabilities ( <i>n</i> = 52)	
	<i>M/SD</i>	<i>p</i>	<i>M/SD</i>	<i>p</i>
Externalizing Problems- Preschool	93.78/11.715	.002*	91.14/12.267	.602
Internalizing Problems- Preschool	97.94/12.781	.018*	91.29/13.060	.031*
Externalizing Problems - Kindergarten	95.29/11.645	.103	87.57/ 8.384	.625
Internalizing Problems Kindergarten	91.43/11.554	.032*	89.71/15.217	.070
Boys' Problem Behavior - 1 <sup>st</sup> Grade	107.00/12.391	.279	102.20/10.545	.020*
Girls' Problem Behavior – 1 <sup>st</sup> Grade	130.00	.832	110.00	.523
Boys' Problem Behavior – 2 <sup>nd</sup> Grade	103.80/16.794	.482	105.33/20.008	.487
Girls' Problem Behavior – 2 <sup>nd</sup> Grade	106.00	.718	116.00	.898

\*.05 level of significance

<sup>1</sup>Most frequent activity choice = blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys

Table 4-8. Free-Play Activity Choice and Problem Behaviors of Four and Five-Year-Olds

Free-Play Activity Choice By	Five-year-olds with DD ( <i>n</i> = 45)		Five-year-olds w/o disabilities ( <i>n</i> = 27)		Four-year-olds with DD ( <i>n</i> = 51)		Four-year-olds w/o disabilities ( <i>n</i> = 25)	
	<i>M/SD</i>	<i>p</i>	<i>M/SD</i>	<i>p</i>	<i>M/SD</i>	<i>p</i>	<i>M/SD</i>	<i>p</i>
Externalizing Problems- Preschool	98.00/ 11.888	.055	98.00/ 11.888	.055	88.50/ 9.710	.018*	92.67/ 11.504	.746
Internalizing Problems- Preschool	103.50/ 12.012	.098	103.50/ 12.012	.098	91.00/ 10.583	.008*	94.67/ 12.503	.179
Externalizing Problems – Kindergarten	96.00/ 15.043	.192	96.00/ 15.043	.192	----	----	----	----
Internalizing Problems – Kindergarten	91.25/ 11.449	.141	91.25/ 11.449	.141	----	----	----	----
Boys' Problem Behavior – 1 <sup>st</sup> Grade	108.71/ 14.092	.537	108.71/ 14.092	.537	105.29/ 11.280	.300	87.50/ 3.536	.146
Girls' Problem Behavior – 1 <sup>st</sup> Grade	130.00	.832	130.00	.832	----	.472	85.00	----
Boys' Problem Behavior- 1 <sup>st</sup> Grade	104.63/ 19.116	.534	104.63/ 19.116	.534	102.86/ 15.159	.790	91.50/ 9.192	.318
Girls' Problem Behavior - 1 <sup>st</sup> Grade	106.00	.697	106.00	.697	----	.866	91.00	----

\*.05 level of significance

Table 4-9. Free-Play Activity Choice and Temperament – Children with Developmental Delay and Children without Disabilities

Free-Play Activity Choice By	% of Total Children	With Developmental Delay (n = 96)		Without Disabilities (n = 52)	
		F	p	F	p
Quiet & passive	8.8	.572	.567	.459	.504
Jumpy & easily startled	20.9	.602	.551	.678	.516
Pays attention/stays focused	26.4	.632	.535	.945	.401
Likes to do things on his/her own	46.6	1.685	.194	1.470	.247
Very active & restless	31.0	.416	.662	1.078	.354
Tries to finish things	18.9	2.260	.113	1.696	.202
Gets easily involved <sup>1</sup>	55.4	3.610	.033*	1.321	.283
Distracted by sights/sounds	23.0	2.058	.136	2.128	.138
Has difficulty with change	29.0	2.616	.081	.302	.742
Often anxious/depressed	2.0	1.636	.203	.084	.774

\*.05 level of significance

<sup>1</sup>Most frequent activity choice = blocks, LEGOs®, K'NEX®, or other building toys

Table 4-10. Free-Play Activity Choice and Temperament – Children with Problem Behaviors ( $M > 115.00$ ) and without Problem Behaviors ( $M < 85.00$ )

Free-Play Activity Choice By	DD & Problem Behavior ( $n = 33$ )		N/A & Problem Behavior ( $n = 9$ )		DD & w/o Problem Behavior ( $n = 33$ )		N/A & w/o Problem Behavior ( $n = 26$ )	
	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>
	Quiet & passive	.991	.393	----	----	.044	.957	1.399
Jumpy & easily startled	1.258	.311	----	----	.219	.805	1.943	.182
Pays attention/stays focused	.387	.685	----	----	.152	.860	.852	.446
Likes to do things on his/her own <sup>1</sup>	.063	.939	----	----	4.192	.026*	2.665	.102
Very active & restless	.096	.909	----	----	2.731	.082	1.100	.358
Tries to finish things	.380	.690	----	----	2.285	.120	1.167	.338
Gets easily involved	.364	.701	----	----	2.516	.099	.142	.711
Distracted by sights/sounds	1.214	.323	----	----	1.266	.298	1.232	.320
Has difficulty with change <sup>1</sup>	3.730	.047*	----	----	1.138	.335	.172	.844
Often anxious/depressed	.423	.662	----	----	3.260	.081	.428	.522

.05 level of significance

N/A = without disabilities

<sup>1</sup>Most frequent activity choice = blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys

Table 4-11. Free-Play Activity Choice and Academic Competence of Children with Developmental Delay/Without Disabilities or With Problem Behaviors/Without Problem Behaviors

Most Frequent Activity Choice By	With Developmental Delay <sup>1</sup> (n = 96)		Without Disabilities <sup>1</sup> (n = 52)		With Problem Behaviors <sup>1</sup> (n = 42)		Without Problem Behaviors <sup>1</sup> (n = 59)		Four-Year-Olds <sup>1</sup> (n = 76)		Five-Year-Olds <sup>1</sup> (n = 72)	
	F	p	F	p	F	p	F	p	F	p	F	p
	PPVT-Preschool	1.952	.044*	.450	.912	.759	.673	.808	.648	1.546	.167	1.036
PPVT-Kindergarten	.521	.890	2.842	.038*	.641	.741	.847	.611	.247	.988	.753	.670
PPVT – 1 <sup>st</sup> Grade	.546	.883	.865	.587	.367	.935	.885	.570	1.181	.344	.694	.736
Letter-Word ID-Preschool	.860	.604	2.065	.080	1.709	.178	1.439	.192	2.026	.062	1.476	.180
Letter-Word ID-Kindergarten	.903	.551	1.385	.279	4.611	.013*	.677	.769	1.348	.253	1.476	.194
Letter-Word ID-1 <sup>st</sup> Grade	.781	.676	1.160	.379	1.387	.307	.839	.612	1.413	.222	1.016	.452
Applied Problems-Preschool	1.121	.365	.530	.860	1.498	.242	1.393	.213	2.055	.059	.385	.954
Applied Problems-Kindergarten	.748	.707	.227	.992	1.033	.485	.682	.766	1.438	.214	.431	.921
Applied Problems-1 <sup>st</sup> Grade	1.579	.127	.606	.800	1.852	.173	1.267	.283	4.622	.001*	.853	.591
Quantitative Concepts-Kindergarten	1.278	.263	1.250	.333	1.496	.278	.956	.512	1.349	.252	1.476	.191
Quantitative Concepts – 1 <sup>st</sup> Grade	.969	.495	.305	.975	1.445	.286	.482	.911	1.365	.243	.398	.948

<sup>1</sup>Most frequent activity choice = blocks, LEGOs®, K'NEX®, or other building toys

\*.05 level of significance

Table 4-12. Free-Play Activity Choice and Academic Competence of Children with Developmental Delay/Without Disabilities

Most Frequent Activity Choice By	Four-Year-Olds				Five-Year-Olds			
	With Developmental Delay <sup>1</sup> (n = 51)		Without Disabilities <sup>2</sup> (n = 25)		With Developmental Delay <sup>1</sup> (n = 45)		Without Disabilities <sup>1</sup> (n = 27)	
	F	p	F	p	F	p	F	p
PPVT-Preschool	1.956	.092	.690	.681	1.467	.230	.260	.959
PPVT-Kindergarten	.326	.947	28.535	.034*	.881	.540	1.552	.275
PPVT-1st Grade	1.558	.195	.465	.802	.819	.606	.786	.612
Letter-Word ID-Preschool	.636	.755	3.030	.196	1.457	.230	1.639	.209
Letter-Word ID-Kindergarten	.940	.504	6.755	.135	1.670	.180	.985	.496
Letter-Word ID-1 <sup>st</sup> Grade	1.166	.362	8.487	.109	1.229	.335	1.504	.255
Applied Problems-Preschool	1.643	.159	1.580	.380	.167	.995	.699	.673
Applied Problems-Kindergarten	.996	.466	.871	.622	.297	.957	.156	.989
Applied Problems-1 <sup>st</sup> Grade	4.480	.002*	1.046	.564	.896	.547	.209	.977
Quantitative Concepts-Kindergarten	1.613	.178	.246	.923	.829	.589	1.165	.394
Quantitative Concepts – 1 <sup>st</sup> Grade	1.635	.172	.203	.946	.569	.806	.422	.870

<sup>1</sup>Most frequent activity choice = blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup> or other building toys

<sup>2</sup>Most frequent activity choice = alphabet and language materials

\*.05 level of significance

Table 4-13. Free-Play Activity Choice and Academic Competence of Children with Developmental Delay/Without Disabilities and With/Without Problem Behaviors

Most Frequent Activity Choice By	With Developmental Delay				Without Disabilities			
	With Problem Behaviors <sup>1</sup> (n = 32)		Without Problem Behaviors <sup>2</sup> (n = 32)		With Problem Behaviors (n = 9)		Without Problem Behaviors <sup>3</sup> (n = 26)	
	F	p	F	p	F	p	F	p
PPVT-Preschool	5.199	.103	.858	.568	----	----	.617	.732
PPVT-Kindergarten	2.638	.227	1.044	.443	----	----	3.530	.049*
PPVT-1st Grade	1.549	.381	.678	.705	----	----	1.416	.298
Letter-Word ID-Preschool	.359	.851	.878	.554	----	----	1.601	.241
Letter-Word ID-Kindergarten	.826	.604	.941	.510	----	----	.807	.605
Letter-Word ID-1 <sup>st</sup> Grade	.502	.766	1.078	.423	----	----	.823	.590
Applied Problems-Preschool	.227	.928	.775	.630	----	----	.384	.892
Applied Problems-Kindergarten	.513	.760	.586	.776	----	----	.297	.938
Applied Problems-1 <sup>st</sup> Grade	5.512	.095	1.442	.249	----	----	.150	.990
Quantitative Concepts-Kindergarten	.718	.653	.958	.498	----	----	1.760	.211
Quantitative Concepts – 1 <sup>st</sup> Grade	.933	.560	.459	.868	----	----	.243	.963

<sup>1</sup>Most frequent activity choice = 1, 2, and 4

<sup>2</sup>Most frequent activity choice = blocks, LEGOs®, K'NEX® or other building toys

<sup>3</sup>Most frequent activity choice = alphabet and language materials

\*.05 level of significance

Table 4-14. Free-Play Activity Choice and Academic Competence of Children With/Without Problem Behaviors

Most Frequent Activity Choice By	Four-Year-Olds				Five-Year-Olds			
	With Problem Behaviors ( <i>n</i> = 10)		Without Problem Behaviors <sup>1</sup> ( <i>n</i> = 24)		With Problem Behaviors <sup>1</sup> ( <i>n</i> = 21)		Without Problem Behaviors <sup>1</sup> ( <i>n</i> = 30)	
	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>
PPVT-Preschool	----	----	.574	.609	.930	.537	.818	.609
PPVT-Kindergarten	----	----	.763	.157	.556	.733	1.857	.157
PPVT-1st Grade	----	----	.671	.284	.268	.933	1.369	.284
Letter-Word ID-Preschool	----	----	.667	.299	1.860	.216	1.334	.299
Letter-Word ID-Kindergarten	----	----	.455	.940	5.088	.036*	.347	.940
Letter-Word ID-1 <sup>st</sup> Grade	----	----	.560	.653	.847	.578	.761	.653
Applied Problems-Preschool	----	----	.575	.606	1.133	.437	.822	.606
Applied Problems-Kindergarten	----	----	.446	.922	1.065	.483	.387	.922
Applied Problems-1 <sup>st</sup> Grade	----	----	.544	.699	.815	.595	.701	.699
Quantitative Concepts-Kindergarten	----	----	.665	.349	1.723	.284	1.234	.349
Quantitative Concepts – 1 <sup>st</sup> Grade	----	----	.259	.999	.366	.877	.120	.999

<sup>1</sup>Most frequent activity choice = blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup> or other building toys

\*.05 level of significance

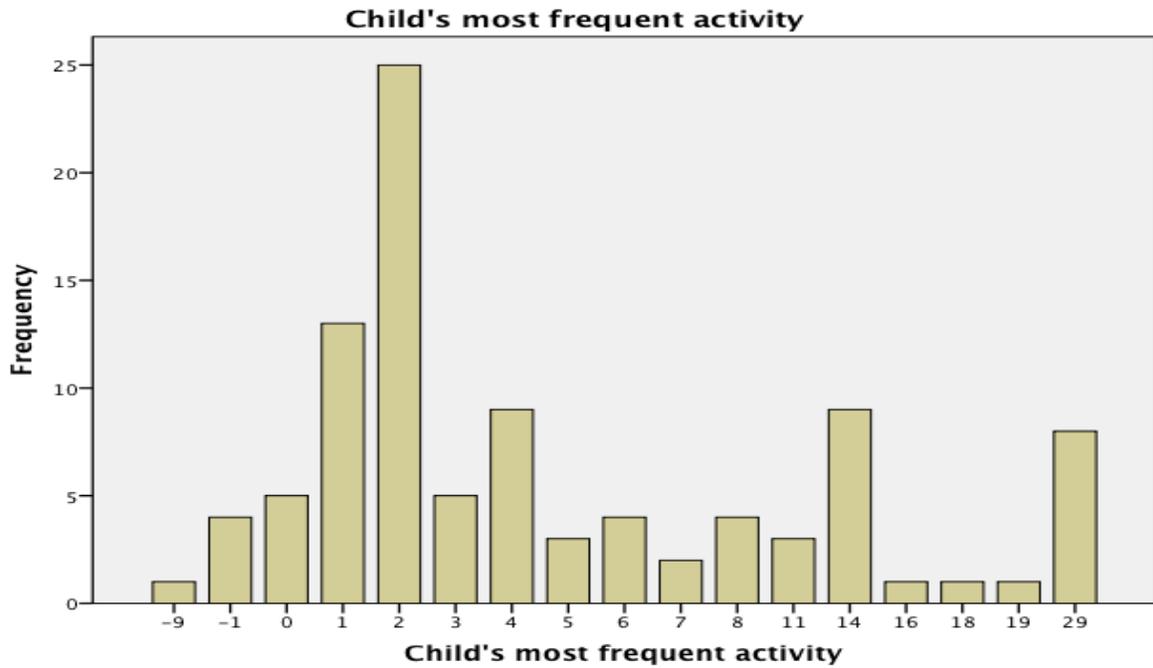


Figure 4-1. Most Frequent Activity Choice By All Children in the Current Study

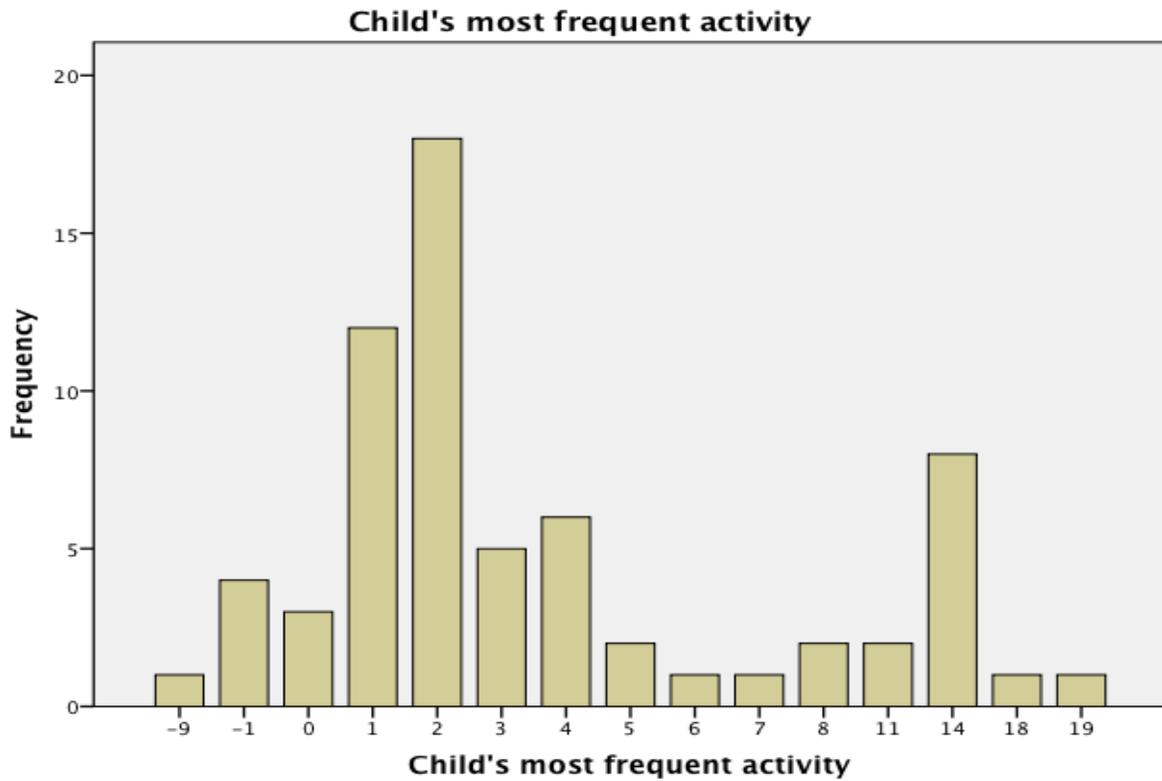


Figure 4-2. Most Frequent Activity Choice of Children With Developmental Delay

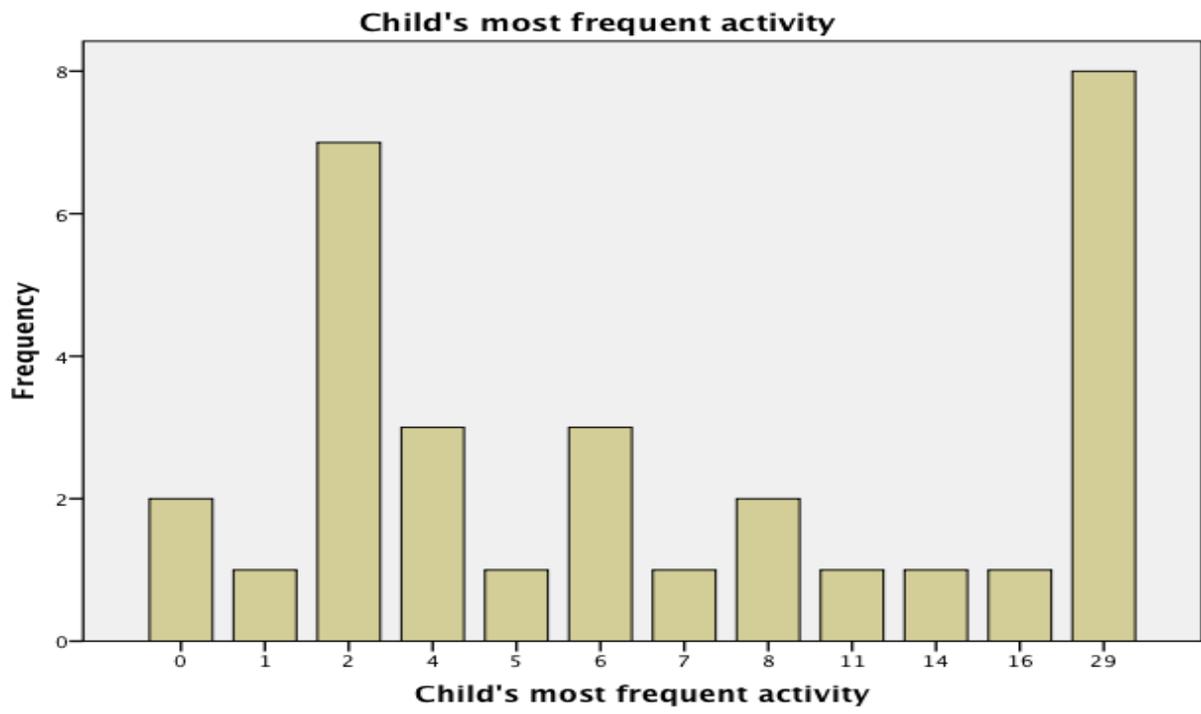


Figure 4-3. Most Frequent of Activity Choice of Children Without Disabilities

## CHAPTER 5 DISCUSSION

This study addressed the importance of play within the larger context of early identification and intervention for young children in order to facilitate academic and social competence. The purpose of the chapter is to discuss the findings that impact academic and social competence of preschool children with and without developmental delay. Limitations of the study will be discussed as well as implications for practice, policy and future research.

### **The Value of Play**

Play constitutes the child's natural way of learning and working (Yawkey, Dank, & Glosenger, 1986). Children begin to create and think divergently when encouraged to solve problems that arise in play (Yawkey, Dank, & Glosenger, 1986). Observing children during play yields valuable information regarding their cognitive and communication development. For example, cognitive skills associated with problem solving, mastery motivation, attention, classification, and sequencing often are observed during play (Linder, 1993). Children with developmental delay and without disabilities need a variety of preferred play activities available in the classroom. Younger children prefer LEGOs<sup>®</sup>, K'NEX<sup>©</sup> or other building toys, vehicles and work machines (e.g cars, trains, trucks, backhoe loaders), a playhouse, toy kitchen, dishes, plastic food, dress-up, costumes, puppets, theatre props, and arts and crafts projects and materials, clay or Play Doh<sup>©</sup> while older children prefer LEGOs<sup>®</sup>, K'NEX<sup>©</sup> or other building toys, arts and crafts projects and materials, clay or Play Doh<sup>©</sup>, sand and water play, and alphabet and language materials

## **Free-Play Activity Choice**

**Differences by age.** Children's preferences for the most frequent free-play activity choice do not differ by age cohort (i.e., ages 4 and 5). The most frequent free-play activity choice for both four-year old and five-year-old children are blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys. However, children's preferences for the second and third most frequent free-play activity choice do differ by age cohort. The second and third most frequent free-play activity choices for five-year-old children are arts and crafts projects and materials, sand and water play, and alphabet and language materials. The second and third most frequent free-play activity choices of four-year-old children are vehicles and work machines (e.g cars, trains, trucks, backhoe loaders), a playhouse, toy kitchen, dishes, plastic food, and arts and crafts projects and materials.

**Differences by gender.** Results of this study suggest four-year-old girls generally prefer dramatic play activities (i.e. playhouse, toy kitchen, dishes, and plastic food, dress-up, costumes, puppets, theatre props) as their first and second most frequent activity choice. Four-year-old boys and five-year-old boys generally prefer constructive play activities (i.e. blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, other building toys) as their first most frequent activity. Both four-year-old girls and four-year-old boys generally prefer arts and crafts projects and materials, clay or Play Doh<sup>®</sup> for their third most frequent activity choice.

## **Developmental Delay**

The Center for Disease Control (CDC) estimates 17% of children in the United States have some form of a developmental disability. Developmental disabilities range from mild developmental delays and disorders to more serious developmental

disorders, such as mental retardation/intellectual disabilities, cerebral palsy, and autism spectrum disorders. The identification of children with less obvious delays and disabilities can be challenging for pediatric specialists and families, in part, because their nature, presence, and severity become obvious only gradually over time. Developmental or behavioral screening tests can help pediatric specialists identify developmental disabilities between the ages of 0 and 3 and refer for special services at an early age. Infants or toddlers who display disabilities in one or more of the following areas of development may qualify for early intervention: physical, cognitive, adaptive, communicative, or social and/or emotional development (Bailey, et al., 2004).

Results of this study suggest that the most frequent activity choice during child-directed free-play in preschool may aid in the diagnosis and assessment of developmental delay. Strong relationships were identified between free-play activity choice in preschool (e.g. blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys) and social competence (e.g. social cooperation skills, social interaction skills, social independence skills in preschool, social independence skills in kindergarten), problem behaviors (e.g. externalizing and internalizing problems in preschool, internalizing problems in kindergarten), temperament qualities (e.g. paying attention/staying focused, being quiet and passive) and academic competence (e.g. receptive vocabulary skills in preschool, applied problems skills in 1<sup>st</sup> grade).

### **Factors Influencing Academic Competence**

Some children begin school more prepared than others. Understanding the qualities that influence children's academic trajectories over many time points may help explain why some high-risk youth either catch up or fall further behind their more

advantaged peers as they progress through school. Intervention efforts may need to target more than one risk factor (Bronfenbrenner, 1994). The child's family, preschool, and larger social and cultural context can have a decided impact on school readiness (NICHD-ECCRN, 2005a).

### **Family Income, Race and Gender**

An investigation of the influence of family income, race, and gender jointly with psychological qualities may add to our understanding of the interactive effects of environmental qualities and psychological qualities on children's competence. Lower SES effects or co-occurs with the development of mental health, intelligence, and achievement. SES affects parental attitudes and beliefs, family interactions, and availability of institutions within the surrounding community (Sameroff, Seifer, & Zax, 1982). Becker & Luther (2002) identified four critical factors for academic success: academic/school attachment, teacher support, peer values, and mental health. They suggest that minority students are at risk for each factor to a greater extent than White students, and that school reform efforts aimed at reducing the achievement gap must address all four factors. They suggest adopting a cultural frame of reference to assessment, treatment and outcome measure and incorporating culturally appropriate mental health services within schools. Results from this study did not vary by family income as 72.6% of families earned less than \$30,000 and 19.3% earned between \$30,000 and \$40,000. Free-play activity choice did differ by gender for the most frequent activity choice but did differ with the second and third most frequent activity choice.

Observing free-play behavior of preschool children is culturally relevant provided all children are provided the same opportunities (i.e. type of activities provided in the

classroom). Caregivers and teachers can ensure that children are given appropriate choices for free-play and provide an environment where child-selection of free-play activity is welcomed and encouraged.

### **Social and Academic Competence**

The value of play extends to children's social-emotional development. Children's emotional and social skills are related to their early academic achievement (Raver, 2003; Wentzel & Asher, 1995). Children who are emotionally well-adjusted have a greater chance of early school success. In contrast, children who experience serious emotional difficulty have a greater risk of early school difficulty (Raver, 2003). Children who display emotional/behavioral disorders frequently demonstrate deficits in academic performance, have lower graduation rates, and are less likely to attend postsecondary institutions (Lane, Barton-Arwood, & Wehby, 2008).

Results from this study suggest that child-directed free-play activity choice in preschool is highly correlated with social cooperation skills, social interaction skills, and social independence skills in preschool, and social independence skills in kindergarten. That is, children with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>©</sup>, or other building toys during child-directed free-play in preschool display average social cooperation skills, social interaction skills, and social independence skills in preschool, and average social independence skills in kindergarten.

### **Problem Behaviors and Academic/Social Competence**

Problem behaviors of preschoolers are correlated with low math skills and preschooler's aggression is correlated with low reading scores (Dobbs, Doctoroff, Fisher, & Arnold, 2006; Doctoroff, Greer, & Arnold, 2006). Behaviorally, children who

are well-adjusted have a greater likelihood to display early academic success. The literature on the prevalence and stability of preschoolers displaying problem behaviors (e.g., inattention, hyperactivity, and impulsivity) and early literacy skills suggests a number of links with later school achievement.

This study examined preschool children with developmental delay with and without problem behaviors and children without disabilities with and without problem behaviors. Results from this study suggest that the most frequent free-play activity choice in preschool of children with developmental delay and children with developmental delay and problem behavior is highly correlated with receptive vocabulary skills in preschool. That is, children with developmental delay and problem behaviors who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys have average receptive vocabulary skills in preschool. Free-play activity choice in preschool of children without disabilities and without problem behaviors is highly correlated with receptive vocabulary skills in kindergarten.

### **Temperament and Academic Competence**

Various personal qualities are considered to be protective factors of academic competence in children, including higher intelligence and academic engagement (Luthar, 2003), and family and social qualities. However, some personal qualities (i.e. temperament) that interact with these protective factors may be an important consideration when forming intervention plans. Garmezy (1993) found three broad sets of variables that operate as protective factors in stress-resistant children: 1) characteristics of the child such as temperament, cognitive skills, and positive

responsiveness to others; 2) characteristics of families such as warmth, cohesion, and structure; and 3) the availability of external support systems.

Attention and other self-control problems adversely impact children's academic achievement (Duncan et al., 2007). Children who display difficulty paying attention, following directions, getting along with others, and controlling negative emotions of anger and distress do less well in school than children who do not display these qualities (Arnold et al., 1999; McClelland et al., 2000; Raver, 2003).

This study identified the following personal qualities to be highly correlated with the most frequent free-play activity choice in preschool: paying attention/staying focused, being passive and quiet.

### **Free-Play Activity Choice and Academic Competence**

Play is the child's natural way of learning and working (Yawkey, Dank, & Glosenger, 1986). Children learn about balance as they explore and build with blocks. They begin to create and think divergently when encouraged to solve problems that arise in play (Yawkey, Dank, & Glosenger, 1986). Observing children during play yields valuable information regarding cognitive and communication development. Cognitive skills associated with problem solving, motivation to master tasks, attention, classification, and sequencing often are displayed during play (Linder, 1993). Six language markers (first words, naming words, vocabulary spurts, word chains, nonproductive two-word utterances, and productive two-word utterances) can be observed during play (Ogura, 1991).

Results from this study suggest that the most frequent free-play activity choice in preschool of children with developmental delay is highly correlated with receptive vocabulary skills in preschool and applied problem skills in 1<sup>st</sup> grade. That is, children

with developmental delay who choose blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, or other building toys more frequently during free-play in preschool display average receptive vocabulary skills in preschool and average applied problems skills in 1<sup>st</sup> grade.

### **Limitations**

The use of a large-scale data set has both benefits and limitations. Data are retrospective and organized or categorized in pre-determined sets by the original researchers or owners of the data set. Variables are selected and defined by the original researchers as well as how the data are coded.

The sampling design used in the original research may be biased. In the PEELS study, a two-stage sampling design was used in an attempt to obtain a nationally representative sample. Local education agencies (LEAs) were selected during the first stage and the sample of 3 to 5-year-old participants was selected by the LEAs in the second stage. Among the 2,752 LEAs serving preschoolers with disabilities, 709 were selected based on geographic region, enrollment size, and district poverty level. A total of 245 LEAs agreed to participate (210 were needed in order to generate a sufficient number of children) and 46 later dropped out of the study. The number of drop-outs and/or the remaining 199 participating LEAs may have been the result of self-selection.

Site coordinators/district staff were required to recruit participating families from lists of eligible children provided by the LEA. The site coordinators/district staff may have been biased in their recruitment of participating families. Families received a monetary incentive for participating in the study so participation could have been influenced by the reward. Only selected teachers completed a mail questionnaire, and only selected children participated in a direct assessment following parental consent.

The accuracy of information obtained through teacher questionnaires depends on their interpretation of the questions and strategy utilized when responding to multiple-choice items. Data are derived from observation and subjective opinions of the personnel who completed the early childhood teacher questionnaire, kindergarten, and early elementary questionnaire.

The type of assessment selected, the method of assessing constructs (i.e. the Woodcock-Johnson, Third Edition, Social Skills Rating System, Preschool and Kindergarten Behavior Scales, Second Edition, lists of available activities), and/or the definition of constructs may be a limitation. Assessments of children who are less than 8 years old have lower reliability compared to those for older children due to their rapid development. Moreover, the children's behavior may vary from one setting to another. An assessment such as the Play Behavior Observation may have yielded higher validity and reliability of responses by providing a richer description of the child's free-play activity. Providing only a list of activities requires the respondent to define the activity and could bias the responses. Thus, the responders may have guessed. The only instruction to assess free-play activity was to provide the most frequent, second most frequent, and third most frequent activity that the child engages in most often.

The availability of activities, including placement of activities provided in the classroom is a limitation within the preschool setting. The teacher's influence on the child's choice of activity and whether the activity is child-directed or teacher-directed could also bias responses. The number of responses that indicate choices during free-play activity was very small; thus the data may be unreliable. Data that assesses children over time (i.e. PEELS data) may be subject to time threats (Campbell &

Stanley, 1963). Time threats are another limitation as change in the outcome variable may be due to qualities other than the independent variable. A .05 level of significance was assumed throughout the course of this study. Adjusting confidence intervals to account for smaller sample sizes and less reliable data may have resulted in fewer significant findings.

While this study is longitudinal and includes various regions and types of preschools across the country, this study includes only children identified with a developmental delay or those receiving services for a developmental delay and those children identified with no disabilities. Thus, results from this study can be generalized only to those children who are 4 and 5 years old with developmental delay and those children 4 and 5 years old without disabilities. Results cannot be generalized to children with other disabilities such as autism, mental retardation, or Down Syndrome.

### **Implications for Practice**

Sameroff and Emde (1989) found individual qualities (e.g. income level, family structure, child's efficacy) do not have as powerful effects on the fate of children when examined within a broader ecological framework (e.g. high-risk environment). Garmezy (1993) suggests that children who are stress-resistant have personal attributes, families, and an external support system that mediate the effects of stress. Rutter (1979) suggests that social competence requires the combination of risk and protective factors. The interaction of risk and protective factors over time rather than the intensity of one or multiple factors at any one time determines social competence. Multiple environments and multiple systems (peer, family, school) must be considered when examining factors because more than one risk factor may be targeted for intervention (Bronfenbrenner, 1994).

Results from this study suggest the need to assess both risks and protective factors when conducting evaluations of children for possible disabilities in addition to caregiver interviews, child interviews, and observations. An assessment of risks and protective factors may also aid in more specific identification and development of more targeted interventions (e.g. specific factor or factors in within a system or systems). In general, a cultural frame of reference (e.g. race, gender, disability, family income, personal qualities, mental health, school attachment, family characteristics, external support system) is recommended for adoption into all assessments, treatments, and outcome measures.

Effective play-based interventions that are based on play strands and are developmentally appropriate (i.e. PCIT, play therapy, modeling play skills, scaffolding conceptual decisions and problem solving, and providing open-ended materials) offered in preschool settings can support cognitive and/or socioemotional skills in 3-5 year olds. Social skills and/or problem behaviors may be readily observable in both home and play settings. Observers can compare how children interact with parents, siblings, teachers, strangers, and peers. These observations may yield important information concerning a child's needs for intervention in order to promote social interaction skills and/or reduce problem behaviors. For example, observations of peer-play may enable teachers and other professionals to differentiate specific skills needed to increase peer interaction, observations of individual play can provide information to the clinician about the child's inner conflicts, and observation of caregiver/child interaction can provide information pertaining to adult-child relationships.

Oppenheim (1984) recommends basic toys and materials that should be provided both in the home and preschool classrooms (Table 5-1). Results from this study support those of Oppenheim (1984) and suggest the most frequent free-play activities for four and five-year-olds with and without developmental delay that are highly correlated with social and academic competence (Table 5-2). Children without disabilities have more activities available in the classroom for child-directed free-play than same age children with developmental delay. Alphabet and language materials are provided more frequently during free-play in classrooms of children without disabilities than classrooms of children with developmental delay. Boys without disabilities who choose alphabet and language materials more frequently during child-directed free-play in preschool display high average social skills in 1<sup>st</sup> grade. Children without disabilities who choose alphabet and language materials more frequently during free-play in preschool display average receptive vocabulary skills in kindergarten. Teachers and caregivers of children with developmental delay may consider providing alphabet and language materials more often during free-play in order to enhance development of social skills and receptive vocabulary skills.

### **Play Behavior Assessment**

A systematic observation method is needed to document children's learning in their play. Frede and Jacobs (2009) propose a screening assessment tool that is play-based, developmentally appropriate, and based on early learning guidelines. Their assessment is based on play strands (e.g. attributes of constructive play, cooperative play, and sociodramatic play). They suggest that the data be measurable, developed along a continuum, and inform present and future instruction and learning. In addition to a systematic observation, a standardized play history (e.g. The Play History Interview by

Takata, 1969, Rogers & Takata, 1975; The Revised Play History by Behnke & Menarchek-Fetkovich, 1982) needs to be undertaken with the child's caregiver and teacher in order to understand patterns of play behavior over time and their impact on achievement skills, social skills, problem behaviors and any developing psychopathology.

Because exploratory and representational competencies vary across developmental disabilities, observations of play impairment may be useful in differentiating diagnostic conditions. Becoming informed about children's play preferences and the effect of developmental delay (i.e. less symbolic play than children without disabilities) on those preferences will aid in diagnosis, and subsequent selection of activities and intervention. Teachers need direct, concise information on how to observe play behavior and assess children's development through play. Teachers also need to become aware of the message (implicit as well as overt) they are giving children about their play choices.

Results of this study support those by Guralnick (2005) regarding the nonsocial play preferences of children with developmental delay being similar to that of children without disabilities or typically developing children. Teachers of children with developmental delay and children without disabilities in the same classroom can create specific interventions or manipulate the environment (i.e. pre-select the activities that are available in the classroom) in order to support children and challenge them in their development, play, and learning (Bjorch-Akesson & Granlund, 2003; Guralnick, 2005).

Children's play preferences should be included in teacher-directed activities. The role of the teacher during teacher-directed play is to increase the developmental level of

play by making play more sophisticated, and encouraging children to problem-solve. Sometimes sophisticated play routines need to be modeled; conceptual decisions and problem solving need to be scaffolded; and open-ended materials and life material need to be provided to children.

Teachers can consult of the Principles for Developmentally Appropriate Practice in Early Childhood Programs (NAEYC, 2009), Principle 10 for specific instruction on developing self-regulation, promoting language, cognition, and social competence through play. Each principle is based on extensive research, and provides a solid base for decision-making on how best to meet the educational needs of young children. In addition, the skills taught in the child-directed-interaction stage of Parent-Child Interaction Therapy (PCIT) can be modified for the classroom. These skill enhancement activities are designed to help the caregiver be more responsive to their child's needs, provide opportunities for the child to explore and master the environment, provide child-directed play opportunities without being intrusive and reward the child's success.

Clinicians should consider the concept of pathological play in order to better understand and manage the care of children who display more challenging behaviors and diagnoses Jureidini (2000). Clinicians working with children or families should be familiar with both Piaget's concept of compensatory play (i.e. play involves the child doing things normally forbidden or pretending that something has happened that has not really occurred) and Erikson's concept of play disruption. When play is disrupted, children stop their play because of discomfort with the feelings associated with events they have experienced in their lives. As such, play disruption can become a diagnostic

marker of children's emotional needs and level of functioning (Gitlin-Weiner, et al., 2000).

### **Preschool Special Education**

Play-based interventions selected for implementation should be developed through a process that uses student performance data along with other information to identify and analyze the area of concern, select and implement interventions, and monitor the effectiveness of the interventions. Interventions shall be implemented as designed for a reasonable period of time and with a level of intensity that matches the student's needs. These services are offered through education agencies similar to special education programs for school-aged children. School systems provide evaluations through Child Find as well as case management and services for children found eligible.

Preschool children eligible for special education services are entitled to receive such services along a continuum, from most to least restrictive as follows: if needed by an itinerant teacher or specialist familiar with the needs of individual children coming to the child's home or child care setting; the school system providing services in such settings as a play group, home or child care program; a classroom in a special preschool program exclusively for children with disabilities; or a classroom in an integrated preschool with non-disabled peers with an interventionist attuned to the children's play themes, building on them, and introducing new content and play materials to help children overcome their barriers to learning.

### **Implications for Future Research**

This study attempted to include variables identified in research as predictors of academic and social competence. Other variables that have not been studied include

social culture (e.g. peer influence), elementary school philosophy/effectiveness, parental discipline methods, cultural practices, and the impact of trauma. These should be considered in future research in order to examine how results differ across other disabilities, such as autism, mental retardation, serious emotional disturbance, and receptive and expressive language disorders. Jureidini (2000) suggests that some studies provide preliminary evidence for a direct pathogenic effect of disruption of the play environment. Further exploration of the relationships between such disruption and longer-term outcomes would be an important direction for play research.

Table 5-1. Basic Toys (Oppenheim, 1984)

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Toys and materials that should be available in both home and school:

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Blocks  
Balls  
Books  
Dolls  
Dress-up  
CDs  
Miniature cars, trucks  
Trikes  
Simple puzzles  
Crayons  
Paints  
Paper/pencils

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Table 5-2. Toys and materials that should be available for 4-5 year-old free-play in home and childcare settings

Free-Play Activity Choice	Gender		Children with Developmental Delay		Children Without Disabilities	
	Girls	Boys	Age 4	Age 5	Age 4	Age 5
Most Frequent*	playhouse toy kitchen dishes plastic food	blocks LEGOs <sup>®</sup> K'NEX <sup>©</sup> building toys <sup>1</sup>	blocks LEGOs <sup>®</sup> K'NEX <sup>©</sup> building toys <sup>1</sup>	blocks LEGOs <sup>®</sup> K'NEX <sup>©</sup> building toys <sup>1</sup>	alphabet and language materials <sup>2</sup>	blocks LEGOs <sup>®</sup> K'NEX <sup>©</sup> building toys <sup>1</sup>
Second Most Frequent**	costumes puppets theatre props	toy vehicles work machines (e.g. cars, trains, trucks, backhoe loaders)	toy vehicles work machines (e.g. cars, trains, trucks, backhoe loaders)	arts & crafts projects and materials clay or Play Doh <sup>©</sup>	playhouse toy kitchen dishes plastic food	alphabet and language materials <sup>2</sup>
Third Most Frequent	arts & crafts projects and materials clay or Play Doh <sup>©</sup>	arts & crafts projects and materials clay or Play Doh <sup>©</sup>	arts & crafts projects and materials clay or Play Doh <sup>©</sup>	toy vehicles work machines (e.g. cars, trains, trucks, backhoe loaders)		Children's books and magazines

\*Children without disabilities differ by age in preference of their most frequent activity choice and their second most frequent activity choice.

\*\*Free-play activity choice differs by age cohort of children with developmental delay for the second most frequent activity choice: four-year-olds prefer vehicles and work machines (e.g. cars, trains, trucks, backhoe loaders) and five-year-olds prefer arts and crafts projects and materials, clay or Play Doh<sup>©</sup>.

<sup>1</sup>Related to social cooperation skills in preschool, social interaction skills in preschool, social independence skills in preschool, social independence skills in kindergarten, receptive vocabulary skills in preschool, and applied problems skills in 1<sup>st</sup> grade

<sup>2</sup>Related to boys' social skills in 1<sup>st</sup> grade, receptive vocabulary skills in kindergarten

## APPENDIX A DEFINITION OF TERMS

Activity(ies). Defined as interests and materials that are routinely available to the child in the classroom or program. Activities are derived from items A8.(a) through (cc) on the Early Childhood Teacher Questionnaire: a) arts and crafts projects and materials, clay, or Play Doh<sup>®</sup>; b) blocks, LEGOs<sup>®</sup>, K'NEX<sup>®</sup>, other building toys; c) sand and water play; d) playhouse, toy kitchen, dishes, plastic food; e) dress-up, costumes, puppets, theater props; f) children's books and magazines; g) sensory table (e.g. cornmeal, beans, and other tactile materials); h) paper, coloring books, crayons, pencils, pens; i) playground equipment (e.g. climbing structure, swings, trikes or bikes, digging tools); j) balls (of various sizes), Nerf<sup>®</sup>-style toys, sports equipment; k) computer and software; l) video games; m) board games; n) toys: vehicles and work machines (e.g. cars, trains, trucks, backhoe loaders); o) toy: tools ( e.g. hammer, stethoscope, cash register, cell phone); p) dolls and stuffed animals; q) commercial toys (e.g. action figures, Barbie<sup>®</sup>); r) commercial educational toys (e.g. Lite-Brite<sup>®</sup>, puzzles, sorting cups, bead stringing); s) musical instruments; t) tapes or CD player with tapes and CDs; items (u) through (x) deleted; y) commercial television/videotapes; z) educational television/videotapes; aa) flashcards; bb) counting and number materials; cc) alphabet and language materials.

Adaptive Behavior. Functional (Pre) Academics Scale scores, Self-Care Scale scores, Self-Direction Scale scores from the Adaptive Behavior Assessment System, Second Edition (ABAS II).

Age Cohort. There are three age cohorts in PEELS: Cohort A consists of 3-year-olds (DOB 3/1/00 through 2/28/01); Cohort B consists of 4-year-olds (DOB 3/1/99 through 2/29/00); Cohort C consists of 5 year-olds (DOB 3/1/98 through 2/28/99).

Children in Cohort A were newly enrolled in a special education program during the recruitment period. Children in Cohorts B and C were either enrolled before the recruitment period (historical) or newly enrolled (ongoing).

Disability. Defined as the child's disability or reason why special education services are needed. Disability type is derived from Item B5. on the Computer Assisted Telephone Interview (CATI) Parent Questionnaire: 2) developmental disability or delay

Ethnicity. Hispanic, Latino, or other Spanish origin-1

Gender. Defined as either male-1 or female-2.

Literacy. Defined as standard scores from the Woodcock Johnson III: Letter-Word Identification subtest (Woodcock, McGrew, and Mather, 2001).

Math. Defined as standard scores from the Woodcock Johnson III: Applied Problems subtest and Quantitative Concepts subtest (Woodcock, McGrew, and Mather, 2001).

Problem Behavior. Early childhood teacher ratings and kindergarten teacher ratings on the Externalizing Problems Behavior Scale, the Internalizing Problems Behavior Scale, and the Problem Behavior Composite Scale of the Preschool and Kindergarten Behavior Scales (PKBS). Kindergarten teacher and elementary teacher ratings on the Problem Behavior Scale-Boys and the Problem Behavior Scale-Girls of the Social Skills Rating System (SSRS). Teacher ratings are based on observations of the child's behavior in the last 3 months. Ratings range from 0 to 3 (e.g. 0=Never; 1=Rarely; 2= Sometimes; 3=Often).

Race. White-1, African American or Black-2, American Indian or Alaska Native-3, Asian-4, Native Hawaiian or other Pacific Islander-5.

Receptive Language. Refers to the scores provided by the Peabody Picture Vocabulary Test standard scores (Dunn and Dunn, 1997).

Social Skills. Early childhood teacher and kindergarten teacher ratings on the Social Cooperation Scale, Social Independence Scale, Social Interaction Scale, and the Social Composite Scale of the Preschool and Kindergarten Behavior Scales (PKBS). Kindergarten teacher and elementary teacher ratings on the Social Skills Scale-Boys and the Social Skills Scale-Girls of the Social Skills Rating System (SSRS). Teacher ratings are based on teacher observations of the child's behavior in the last 3 months. Ratings range from 0 to 3 (e.g. 0=Never; 1=Rarely; 2= Sometimes; 3=Often).

Socioeconomic status (SES). Defined as total income of all persons in the child's household in the past year (i.e. salaries or other earnings, money from public assistance, child support, retirement) for all household members. SES is derived from Items H32a. through H32c on the CATI Parent Questionnaire: \$25, 000 (e.g. \$5,000 or less-1; \$5,001 to \$10,000-2; \$10,001 to \$15,000-3; \$15,001 to \$20,000-4; \$20,001 to \$25,000-5) or less or more than \$25,000 (e.g. \$25,001 to \$30,000-1; \$30,001 to \$35,000-2; \$35,001 to \$40,000-3; \$40,001 to \$45,000-4; 45,001 to \$50,000-5; more than \$50,000-6).

Temperament. Defined by the PEELS Computer Assisted Telephone Interview (CATI) Parent Questionnaire as being fairly quiet and passive, jumpy and easily startled, paying attention/staying focused, enjoying to do things on his/her own, being restless, fidgeting, and having difficulty sitting still, trying to finish things, getting easily involved, being distracted by sights/sounds, having difficulty adapting to change, and being anxious/depressed often.

APPENDIX B  
PRINCIPLES FOR DEVELOPMENTALLY APPROPRIATE PRACTICE IN EARLY  
CHILDHOOD PROGRAMS (NAEYC, 2009)

1. All the domains of development and learning-physical, social and emotional, and cognitive-are important, and they are closely interrelated. Children's development and learning in one domain influence and are influenced by what takes place in other domains.
1. Many aspects of children's learning and development follow well-documented sequences, with later abilities, skills, and knowledge building on those already acquired.
2. Development and learning proceed at varying rates from child to child, as well as at uneven rates across different areas of a child's individual functioning.
3. Development and learning result from a dynamic and continuous interaction of biological maturation and experience.
4. Early experiences have profound effects, both cumulative and delayed, on a child's development and learning; and optimal periods exist for certain types of development and learning to occur.
5. Development proceeds toward greater complexity, self-regulation, and symbolic or representational capacities.
6. Children develop best when they have secure, consistent relationships with responsive adults and opportunities for positive relationships with peers.
7. Development and learning occur in and are influenced by multiple social and cultural contexts.
8. Always mentally active in seeking to understand the world around them, children learn in a variety of ways; a wide range of teaching strategies and interactions are effective in supporting all these kinds of learning.
9. Play is an important vehicle for developing self-regulation as well as for promoting language, cognition, and social competence.
10. Developing and learning advance when children are challenged to achieve at a level just beyond their current mastery, and also when they have many opportunities to practice newly acquired skills.
11. Children's experiences shape their motivation and approaches to learning, such as persistence, initiative, and flexibility; in turn, these dispositions and behaviors affect their learning and development.

APPENDIX C  
UNIVERSITY OF FLORIDA INTERNAL REVIEW BOARD PERMISSION TO  
CONDUCT RESEARCH



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June 28, 2010

TO: Lee Ann Lehman  
3213 Fairmont Place  
Haines City, FL 33844

FROM: Ira S. Fischler, PhD; Chair  
University of Florida  
Institutional Review Board 02

A handwritten signature in black ink, appearing to read "Ira S. Fischler".

SUBJECT: **Exemption of Protocol #2010-U-0588**  
The Effect of Free-Play Activity Choice on Academic and Prosocial Skills of  
Preschool Children With/Without Disabilities and Problem Behaviors

SPONSOR: None

Because this protocol does not involve the use of human participants in research, it is exempt from further review by this Board in accordance with 45 CFR 46. Human participants are defined by the Federal Regulations as living individual(s) about whom an investigator conducting research obtains (1) data through intervention or interaction with the individual; or (2) identifiable private information. The Board has also exempted the study based on the following category:

*45 CFR 46.101(b)(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.*

Should the nature of your study change or if you need to revise this protocol in any manner, please contact this office before implementing the changes.

IF:dl

APPENDIX D  
NATIONAL CENTER FOR EDUCATIONAL STATISTICS RESEARCH DATA USE

*Lehman*

LICENSE FOR THE USE OF  
INDIVIDUALLY IDENTIFIABLE INFORMATION  
PROTECTED UNDER  
THE EDUCATION SCIENCES REFORM ACT OF 2002  
THE E-GOVERNMENT ACT OF 2002, TITLE V  
THE CONFIDENTIAL INFORMATION PROTECTION AND STATISTICAL  
EFFICIENCY ACT OF 2002  
AND THE PRIVACY ACT OF 1974

WHEREAS, the Institute of Education Sciences (IES) of the United States Department of Education has collected individually identifiable information, the confidentiality of which is protected by the Privacy Act of 1974 (5 U.S.C. 552a); Title V, subtitle A of the E-Government Act of 2002 (PL 107-347); and section 183 of the Education Sciences Reform Act of 2002 (PL 107-279), and

WHEREAS, IES wishes to make the data available for statistical purposes to requestors qualified and capable of research and analysis consistent with the statistical purposes for which the data were provided, but only if the data are used and protected in accordance with the terms and conditions stated in this license, upon receipt of such assurance of qualification and capability, it is hereby agreed between

*University of Florida*  
(Insert the name of the agency or organization to be licensed)

hereinafter referred to as the "Licensee", and IES that:

**I. INFORMATION SUBJECT TO THIS AGREEMENT**

- A. All data containing individually identifiable information about students, their families, and their schools collected by or on the behalf of IES under section 183 of the Education Sciences Reform Act of 2002, that are provided to the Licensee and all information derived from those data, and all data resulting from merges, matches, or other uses of the data provided by IES with other data are subject to this license and are referred to in this license as subject data.
- B. Subject data under this license may be in the form of diskettes, CD-ROMs, hard copy, etc. The Licensee may only use the subject data in a manner and to a purpose consistent with:
  - 1. the statistical purpose for which the data were supplied, (Licensee's description of the research and analysis which is planned as described in your request for data is attached and made a part of this license - Attachment No. 1.)
  - 2. the limitations imposed under the provisions of this license and,
  - 3. section 183 of the Education Sciences Reform Act of 2002; Title V, subtitle A of the E-Government Act of 2002; and the Privacy Act of 1974 (5 U.S.C. 552a), which are attached to and made a part of this license (Attachment No. 2.)

LICENSE FOR THE USE OF  
INDIVIDUALLY IDENTIFIABLE INFORMATION  
PROTECTED UNDER  
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THE E-GOVERNMENT ACT OF 2002, TITLE V  
THE CONFIDENTIAL INFORMATION PROTECTION AND STATISTICAL  
EFFICIENCY ACT OF 2002  
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University of Florida  
(Insert the name of the agency or organization to be licensed)

hereinafter referred to as the "Licensee", and IES that:

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- B. Subject data under this license may be in the form of diskettes, CD-ROMs, hard copy, etc. The Licensee may only use the subject data in a manner and to a purpose consistent with:
  - 1. the statistical purpose for which the data were supplied, (Licensee's description of the research and analysis which is planned as described in your request for data is attached and made a part of this license - Attachment No. 1.)
  - 2. the limitations imposed under the provisions of this license and,
  - 3. section 183 of the Education Sciences Reform Act of 2002; Title V, subtitle A of the E-Government Act of 2002; and the Privacy Act of 1974 (5 U.S.C. 552a), which are attached to and made a part of this license (Attachment No. 2.)

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WHEREAS, IES wishes to make the data available for statistical purposes to requestors qualified and capable of research and analysis consistent with the statistical purposes for which the data were provided, but only if the data are used and protected in accordance with the terms and conditions stated in this license, upon receipt of such assurance of qualification and capability, it is hereby agreed between

University of Florida  
(Insert the name of the agency or organization to be licensed)

hereinafter referred to as the "Licensee", and IES that:

I. INFORMATION SUBJECT TO THIS AGREEMENT

- A. All data containing individually identifiable information about students, their families, and their schools collected by or on the behalf of IES under section 183 of the Education Sciences Reform Act of 2002, that are provided to the Licensee and all information derived from those data, and all data resulting from merges, matches, or other uses of the data provided by IES with other data are subject to this license and are referred to in this license as subject data.
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  - 1. the statistical purpose for which the data were supplied, (Licensee's description of the research and analysis which is planned as described in your request for data is attached and made a part of this license - Attachment No. 1.)
  - 2. the limitations imposed under the provisions of this license and,
  - 3. section 183 of the Education Sciences Reform Act of 2002; Title V, subtitle A of the E-Government Act of 2002; and the Privacy Act of 1974 (5 U.S.C. 552a), which are attached to and made a part of this license (Attachment No. 2.)

## II. INDIVIDUALS WHO MAY HAVE ACCESS TO SUBJECT DATA

- A. There are four categories of individuals that the Licensee may authorize to have access to subject data. The four categories of individuals are as follows:
  - 1. The Principal Project Officer (PPO) is the most senior officer in charge of the day-to-day operations involving the use of subject data and is responsible for liaison with IES.
  - 2. Professional/Technical Staff (P/TS) conduct the research for which this license was issued.
  - 3. Support staff includes secretaries, typists, computer technicians, messengers, etc. Licensee may disclose subject data to support staff who come in contact with the subject data in course of their duties only to the extent necessary to support the research under this license.
  - 4. An independent researcher is an individual who has satisfied the requirements specified in paragraph II.C. of this license.
- B. Licensee may disclose subject data to only seven (7) P/TS unless IES provides written authorization for a larger number of P/TS.
- C. Licensee may disclose subject data to individuals who desire to do independent research, under the following conditions:
  - 1. The independent researcher submits an application for access to subject data to IES directly, or through the Licensee.
  - 2. IES provides written approval for the Licensee to disclose subject data to the independent researcher.
  - 3. The Licensee completes the affidavit procedures in paragraph IV.B. of the license.

## III. LIMITATIONS ON DISCLOSURE

- A. Licensee shall not use or disclose subject data for any administrative purposes nor may they be applied in any manner to change the status, condition, or public perception of any individual regarding whom subject data is maintained. (Note: Federal Law pre-empts any State law that might require the reporting or dissemination of these data for any purpose other than the statistical purposes for which they were collected.)
- B. Licensee shall not disclose subject data or other information containing, or derived from, subject data at fine levels of geography, such as school district, institution, or school, to anyone other than IES employees working in the course of their employment or individuals for whom access is authorized under this license agreement. Licensee may make disclosures of subject data to individuals other than those specified in this paragraph only if those individuals have executed an affidavit of nondisclosure and the Licensee has obtained advance written approval from IES.

- C. Licensee shall not make any publication or other release of subject data listing information regarding individual respondents even if the individual respondent identifiers have been removed.
- D. Licensee may publish the results, analysis, or other information developed as a result of any research based on subject data made available under this license only in summary or statistical form so that the identity of individual respondents contained in the subject data is not revealed.

#### IV. ADMINISTRATIVE REQUIREMENTS

- A. The research conducted under this license and the disclosure of subject data needed for that research must be consistent with the statistical purpose for which the data were supplied. The subject data may not be used to identify individual respondents for recontacting unless Licensee has obtained advance written approval from IES.
- B. Execution of affidavits of nondisclosure.
  - 1. Licensee shall provide a copy of this agreement, together with the Security Plan Form (Attachment No. 3) to each PT/S of the licensee who will have access to subject data and shall require each of those PT/Ss to execute an affidavit of nondisclosure. Licensee shall also provide a copy of the attached Security Plan Form and the abstracted statement of the statistical purpose for which the data were supplied, to each independent researcher approved by IES who the licensee intends to have access to subject data and shall require each of those researchers to execute an affidavit of nondisclosure.
  - 2. The Licensee must ensure that each individual who executes an affidavit of nondisclosure reads and understands the materials provided to her or him before executing the affidavit.
  - 3. Licensee shall ensure that each affidavit of nondisclosure is notarized upon execution.
  - 4. Licensee may not permit any individual specified in paragraph II.A. to have access to subject data until the procedures in paragraphs IV.B.1. through 3. of this license are fulfilled for that individual.
  - 5. Licensee shall promptly, after the execution of each affidavit, send the original affidavit to IES and shall maintain a copy of each affidavit at the licensee's secured facility protected under this license.
- C. Notification regarding authorized individuals to IES.
  - 1. Licensee shall promptly notify IES when any PT/S who has been authorized to have access to subject data no longer has access to those data.
  - 2. If the terms of an independent researcher's application specify when the researcher's access to subject data terminates and access does terminate on that date, the Licensee need not notify IES of that fact.

However, if the researcher's access terminates on another date, the Licensee shall promptly notify IES of the date that such access terminates.

**D. Publications made available to IES.**

1. Licensee shall provide IES a copy of each publication containing information based on subject data or other data product based on subject data before they are made available to individuals who have not executed an affidavit of nondisclosure.
2. When publication or other release of research results could raise reasonable questions regarding disclosure of individually identifiable information contained in subject data, copies of the proposed publication or release must be provided to IES before that disclosure is made so that IES may advise whether the disclosure is authorized under this license and the provisions of section 183 of the Education Sciences Reform Act of 2002; Title V, subtitle A of the E-Government Act of 2002; and the Privacy Act of 1974 (5 U.S.C. 552a). Licensee agrees not to publish or otherwise release research results provided to IES if IES advises that such disclosure is not authorized.

E. Licensee shall notify IES immediately upon receipt of any legal, investigatory, or other demand for disclosure of subject data.

F. Licensee shall notify IES immediately upon discovering any breach or suspected breach of security or any disclosure of subject data to unauthorized parties or agencies.

G. Licensee agrees that representatives of IES have the right to make unannounced and unscheduled inspections of the Licensee's facilities, including any associated computer center, to evaluate compliance with the terms of this license and the requirements of section 183 of the Education Sciences Reform Act of 2002; Title V, subtitle A of the E-Government Act of 2002; and the Privacy Act of 1974 (5 U.S.C. 552a).

**V. SECURITY REQUIREMENTS**

**A. Maintenance of, and access to, subject data.**

1. Licensee shall retain the original version of the subject data at a single location and may make no copy or extract of the subject data available to anyone except a P/TS or independent researcher as necessary for the purpose of the statistical research for which the subject data were made available to the Licensee.
2. Licensee shall maintain subject data (whether maintained on a personal computer or on printed or other material) in a space that is limited to access by authorized PT/S.

3. Licensee shall ensure that access to subject data maintained in computer memory is controlled by password protection. Licensee shall maintain all print-outs, diskettes, personal computers with subject data on hard disks, or other physical products containing individually identifiable information derived from subject data in locked cabinets, file drawers, or other secure locations when not in use.
4. Licensee shall ensure that all printouts, tabulations, and reports are edited for any possible disclosures of subject data.
5. Licensee shall establish security procedures to ensure that subject data cannot be used or taken by unauthorized individuals.
6. Licensee shall not permit removal of any subject data from the limited access space protected under the provisions of this license as required in the attached Security Plan Form, without first notifying, and obtaining written approval from IES.

**B. Retention of subject data.**

Licensee shall return to IES all subject data, or destroy those data under IES supervision or by approved IES procedures when the research that is the subject of this agreement has been completed or this license terminates, whichever occurs first.

**C. Compliance with established security procedures.**

Licensee shall comply with the security procedures described in the Security Plan Form attached to this license.

**VI. PENALTIES**

**A. Any violation of the terms and conditions of this license may subject the Licensee to immediate revocation of the license by IES.**

1. The IES official responsible for liaison with the Licensee shall initiate revocation of this License by written notice to Licensee indicating the factual basis and grounds for revocation.
2. Upon receipt of the notice specified in paragraph VI.A.1 of this license, the Licensee has thirty (30) days to submit written argument and evidence to the Director of IES indicating why the License should not be revoked.
3. The Director shall decide whether to revoke the license based solely on the information contained in the notice to the Licensee and the

Licensee's response and shall provide written notice of the decision to the Licensee within forty-five (45) days after receipt of Licensee's response. The Director may extend this time period for good cause.

- B. Any violation of this license may also be a violation of Federal criminal law under the Privacy Act of 1974 (5 U.S.C. 552a); section 183 of the Education Sciences Reform Act of 2002; and/or Title V, subtitle A of the E-Government Act of 2002. Alleged violations under section 183 of the Education Sciences Reform Act of 2002 and Title V, subtitle A of the E-Government Act of 2002 are subject to prosecution by the United States Attorney. The penalty for violation of section 183 of the Education Sciences Reform Act of 2002 and Title V, subtitle A of the E-Government Act of 2002, is a fine of not more than \$250,000 and imprisonment for a period of not more than five years.

#### **VII. PROCESSING OF THIS LICENSE**

- A. The term of this license shall be for five years. If, before the expiration of this license, the Director establishes regulatory standards for the issuance and content of licenses, the Licensee agrees to comply with the regulatory standards.
- B. This license may be amended, extended or terminated by mutual written agreement between the Licensee and the Director of IES. Any amendment must be signed by a Senior Official specified in paragraph VII.C. of this license, PPO, and the Director and is effective on the date that all required parties have signed the amendment.

C. The Senior Official (SO) having the legal authority to bind the organization to the terms of the license shall sign this license below. The SO certifies, by his/her signature, that -

1. The organization has the authority to undertake the commitments in this license;
2. The SO has the legal authority to bind the organization to the provisions of this license; and
3. The PPO is the most senior statistical officer for the licensee who has the authority to manage the day-to-day statistical operations of the Licensee.

  
Signature of the Senior Official \_\_\_\_\_ Date 5.13.09

Brian C. Miller  
Assistant Director of Research  
Type/Print Name of Senior Official \_\_\_\_\_

Title: \_\_\_\_\_

Telephone: 

D. The individual described in paragraph II.A1, as the PPO shall sign this license below. If the SO also acts as the chief statistical officer for the Licensee; viz. as the PPO, the SO shall likewise sign under this paragraph as well as having signed under paragraph VII.C.

  
Signature of the Principal Project Officer \_\_\_\_\_ Date 5/8/09

Thomas S. Oskeland  
Type/Print Name of Principal Project Officer \_\_\_\_\_

Title: Professor

Telephone: 

E. The Director of the Institute of Education Sciences or Designee issues this license to

\_\_\_\_\_. The license is effective as of the date of the Director or designee's signature below, or such other period specified in the Licensee's request for the license.

\_\_\_\_\_  
Signature of IES Director

\_\_\_\_\_  
Type/Print Name of Director or Designee

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

IES License Control Number: \_\_\_\_\_

**Affidavit of Nondisclosure**

Doctoral Student  
(Job Title)

University of Florida  
(Organization, State or Local/Agency Name)

1403 Norman Hall  
(Organization or Agency Address)  
Gainesville, FL

(Date Assigned to Work with NCES Data)



(NCES Database or File Containing Individually Identifiable Information\*)

I, Lee Ann Lehman, do solemnly swear (or affirm) that when given access to the subject NCES database or file, I will not -

(i) use or reveal any individually identifiable information furnished, acquired, retrieved or assembled by me or others, under the provisions of Section 183 of the Education Sciences Reform Act of 2002 (P.L. 107-279) and Title V, subtitle A of the E-Government Act of 2002 (P.L. 107-347) for any purpose other than statistical purposes specified in the NCES survey, project or contract;

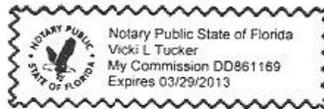
(ii) make any disclosure or publication whereby a sample unit or survey respondent (including students and schools) could be identified or the data furnished by or related to any particular person or school under these sections could be identified; or

(iii) permit anyone other than the individuals authorized by the Commissioner of the National Center for Education Statistics to examine the individual reports.

Lee Ann Lehman  
(Signature)

[The penalty for unlawful disclosure is a fine of not more than \$250,000 (under 18 U.S.C. 3571) or imprisonment for not more than five years (under 18 U.S.C. 3559), or both. The word "swear" should be stricken out when a person elects to affirm the affidavit rather than to swear to it.]

City/County of Alachua Commonwealth/State of Florida  
Sworn to and subscribed before me this 5 day of May, 2009. Witness my hand and official Seal.



Vicki L. Tucker  
(Notary Public/Seal)

My commission expires 3-29-2013

\* Request all subsequent follow-up data that may be needed. This form cannot be amended by NCES, so access to databases not listed will require submitting additional notarized Affidavits.

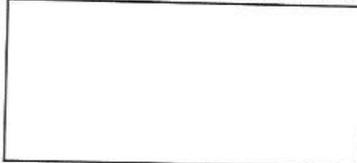
**Affidavit of Nondisclosure**

Professor  
(Job Title)

University of Florida  
(Organization, State or Local Agency Name)

403 Norman Hall  
(Organization or Agency Address)  
Gainesville, FL 32611

(Date Assigned to Work with NCES Data)



(NCES Database or File Containing Individually Identifiable Information\*)

I, Thomas Oakland, do solemnly swear (or affirm) that when given access to the subject NCES database or file, I will not -

(i) use or reveal any individually identifiable information furnished, acquired, retrieved or assembled by me or others, under the provisions of Section 183 of the Education Sciences Reform Act of 2002 (P.L. 107-279) and Title V, subtitle A of the E-Government Act of 2002 (P.L. 107-347) for any purpose other than statistical purposes specified in the NCES survey, project or contract;

(ii) make any disclosure or publication whereby a sample unit or survey respondent (including students and schools) could be identified or the data furnished by or related to any particular person or school under these sections could be identified; or

(iii) permit anyone other than the individuals authorized by the Commissioner of the National Center for Education Statistics to examine the individual reports.

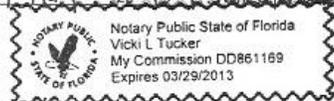
[Signature]  
(Signature)

[The penalty for unlawful disclosure is a fine of not more than \$250,000 (under 18 U.S.C. 3571) or imprisonment for not more than five years (under 18 U.S.C. 3559), or both. The word "swear" should be stricken out when a person elects to affirm the affidavit rather than to swear to it.]

City/County of Alachua Commonwealth/State of Florida

Sworn to and subscribed before me this 8<sup>th</sup> day of

May 20 09 Witness my hand and official Seal.



[Signature]  
(Notary Public/Seal)

My commission expires 3-29-2013

\* Request all subsequent follow-up data that may be needed. This form cannot be amended by NCES, so access to databases not listed will require submitting additional notarized Affidavits.

## Security Plan Form

Institute of Education Sciences (IES)  
Restricted-use Data

Name of Institution / Organization: University of Florida

PPO Name: Thomas Oakland

PPO Address:  
(no P.O. Box number;  
specify building name,  
department, and room  
number)

(Provide street address, city, state, zip code, department and building name, and office/room number.)

1410 Norman Hall  
University of Florida  
Gainesville, FL 32611

PPO Phone Number: [REDACTED]

Type of Security Plan: New  Renewal  Modification

License Number: 09010050  
application  
number

### Physical Location of Data

Project Office Address:  
(no P.O. Box number;  
specify building name,  
department, and room  
number)

(Provide street address, city, state, zip code, department and building name, and office/room number.)

1410 Norman Hall  
University of Florida  
Gainesville, FL 32611

Project Office Phone Number: [REDACTED]

**Note:** The restricted-use data and computer must be secured and used only at this location. When the data are not being used, the data must be stored under lock and key at this location. Only authorized users of the data, as listed on the License, may have access to this secure project office/room.

### Physical Security of Data

Describe Building Security:  
(Describe building security  
arrangements where  
project office is located.)

- Building is locked after 5:00 PM on  
weekdays and on weekends.  
- Office is inside and accessible only by a  
hallway  
- Access to the hallway where the office is  
located is available only between 8-5 PM.

Describe Project Office Security:  
(Describe project office security arrangements for the room where the computer and data will be located.)

Desktop computer that is solely dedicated to this project is located in an office  
- office will be locked during e-s and only accessible to PPO and office secretary

### Computer Security Requirements

Describe Computer System:  
(Please read the Note below. Computer security must follow the requirements listed below.)

Dell desktop that is not connected to network  
Optiplex GX280  
serial 3D00551 Asset 201373

Computer Operating System: Windows XP

Anti-Virus Software Installed on Computer: McAfee AV

**Note:** The restricted-use data must be copied to and run on a standalone, desktop computer. Use of a laptop computer, external hard drive, or USB memory stick is strictly prohibited. Absolutely no restricted-use data may be copied onto a server or computer that is attached to a modem or network (LAN) connection. Prior to attaching the computer to a modem or LAN connection, the restricted-use data must be purged and overwritten on the computer.

The following physical location and computer security procedures must be implemented when in possession of restricted-use data. By checking the box next to each security procedure, you signify that these security procedures will be implemented for the duration of the project and License period:

- Only authorized users listed on the License will have access to the secure room. Access will be limited to the secure room/project office by locking the office when away from the office.
- Data will only be secured, accessed and used within the secure project office/room (as specified on page 1 of this plan).
- A password will be required as part of the computer login process.
- The password for computer access will be unique and contain 6 to 8 characters with at least one non-alphanumeric character.
- The computer password will change at least every 3 months or when project staff leave.

- Read-only access will be initiated for the original data.
- An automatic password protected screensaver will enable after 5 minutes of inactivity.
- No routine backups of the restricted-use data will be made.
- Project office room keys will be returned and computer login will be disabled within 24 hours after any user leaves the project. The PPO will notify IES of staff changes.
- Restricted-use data will **not** be placed on a server (network), laptop computer, USB memory stick, or external hard drive.
- The data will be removed from the project computer and overwritten, whether at the end of the project or when reattaching a modem or LAN connection.
- Post Warning notification: During the computer log-in process, a warning statement (shown below) will appear on the computer screen before access is granted. If it is not possible to have the warning appear on the screen, it must be typed and attached to the computer monitor in a prominent location.

**WARNING**

**U.S. Government Restricted-use Data**

**Unauthorized Access to Data (Individually Identifiable Information) on this Computer is a Violation of Federal Law and will Result in Prosecution.**

**Do You Wish to Continue? (Y)es or (N)o**

**NOTICE**

**Proposed Publications Using Restricted-use Data**

Licensees are required to round all unweighted sample size numbers to the nearest ten (nearest 50 for ECLS-B) in all information products (i.e.: proposals, presentations, papers or other documents that are based on or use restricted-use data). Licensees are required to provide a draft copy of each information product that is based on or uses restricted-use data to the IES Data Security Office for a disclosure review. The Licensee must not release the information product to any person not authorized to access the data you are using until formally notified by IES that no potential disclosures were found. This review process usually takes 3 to 5 business days.

The PPO shall also forward a final, approved copy of each publication containing information based on restricted-use data to the IES Data Security Office.

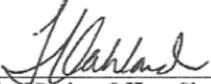
**Signature Page – Management Review and Approval**

I have reviewed the requirements of the License agreement and the security procedures in this plan that describe the required protection procedures for securing, accessing and using the restricted-use data.

I hereby certify that the computer system, physical location security procedures, and access procedures meet all of the License requirements and will be implemented for the duration of the project and License period.

  
\_\_\_\_\_  
Senior Official Signature  
Brian C. Miller  
Assistant Director of Research  
\_\_\_\_\_  
Senior Official Name & Title (print)

5.13.09  
Date  
\_\_\_\_\_  
Phone Number

  
\_\_\_\_\_  
Principal Project Officer Signature  
Thomas Oakland Professor  
\_\_\_\_\_  
Principal Project Officer Name & Title (print)

5/8/09  
Date  
\_\_\_\_\_  
Phone Number

  
\_\_\_\_\_  
System Security Officer Signature  
Tracey Chavet - Dir Info + Inst Tech  
\_\_\_\_\_  
System Security Officer Name & Title (print)

5/5/09  
Date  
\_\_\_\_\_  
Phone Number

Note: The National Center for Education Statistics (NCES) processes licenses and disseminates restricted-use data for all centers in the Institute of Education Sciences (IES) including the National Center for Education Research (NCER), the National Center for Education Statistics (NCES), the National Center for Education Evaluation (NCEE), and the National Center for Special Education Research (NCSER).

APPENDIX E  
PEELS EARLY CHILDHOOD TEACHER QUESTIONNAIRE

Pre-Elementary Education Longitudinal Study

Early Childhood Teacher Questionnaire

Pre school

PEELS

friends

learn

grow

"because all children should count...  
read, learn, grow, and have friends..."

Funded by the US Department of Education,  
Office of Special Education Programs

## Pre-Elementary Education Longitudinal Study

# Early Childhood Teacher Questionnaire

### *Dear Early Childhood Professional:*

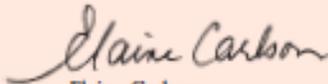
Your school district is participating in an important U.S. Department of Education study called the Pre-Elementary Education Longitudinal Study (PEELS). The child named on the label is one of more than 3,000 children nationwide who are taking part in PEELS. This questionnaire is the only source of information about the educational programs and services for this child. Because of this, your participation is vitally important.

Please complete this questionnaire and return it in the postage-paid envelope within 3 weeks. Answer all questions to the best of your knowledge and use your best guess when answering questions for which you are not quite sure of the answer. However, try as best you can to avoid responses that represent complete guesses. If necessary, please consult with colleagues in answering questions. Be assured that your answers will be confidential, and no information will be reported that identifies you, this child, or this school. We have enclosed \$10 as a token of our appreciation.

If you have any questions about the study or the questionnaire, please feel free to call the PEELS toll-free hot line at 1-888-534-8348, send an email to [questions@peels.org](mailto:questions@peels.org), or visit the PEELS web site at [www.peels.org](http://www.peels.org).

Thank you in advance for your contribution to this very important study.

Sincerely,



Elaine Carlson  
Project Director, PEELS

Questions?

**Call the PEELS  
toll-free hot line:  
1-888-534-8348**

According to the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1820-0656. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: US Department of Education, Washington, D.C. 20202-4651. If you have comments or concerns regarding the status of your individual submission of this form, write directly to: Office of Special Education Programs, US Department of Education, Switzer Building, Room 4622, 330 C Street, SW, Washington, D.C. 20202-4651.

OMB Control # 1820-0656, Expiration date: 11/30/04

## Who should complete this questionnaire?

This questionnaire should be completed by the teacher or service provider who knows the child whose name appears on the label above and can describe the early childhood program or special education and related services for this child.

- Can you tell us about the child whose name appears on the label?

1  Yes

2  No

- Can you tell us about this child's early childhood program?

1  Yes

2  No

- Can you tell us about special services this child receives (e.g., speech therapy)?

1  Yes

2  No

If you answered NO to **ALL** three questions:

DO NOT COMPLETE THIS QUESTIONNAIRE. PLEASE PASS THE QUESTIONNAIRE ON TO THE PERSON WHO IS BEST ABLE TO DESCRIBE THIS CHILD'S PROGRAM OR SPECIAL SERVICES.

If you answered YES to **ANY** of the three questions:

PLEASE PROCEED TO SECTION A →

### *note:*

Any question referring to IEPs (Individualized Education Program for a child with a disability) is meant to refer also to IFSPs (Individualized Family Service Plan for a child with a disability) in states using the latter plan for children ages 3 through 5.



## Section A:

### CHILD'S EXPERIENCE IN YOUR PROGRAM

REMINDER: "This child" refers to the child whose name appears on the label.

**A1.** Does this child attend an early childhood class with other children?

PLEASE ✓ CHECK ONE.

- 1  Yes → Continue with Question A2  
2  No  
3  Don't know } Go to Question B1

**A2.** What are the total numbers of preschoolers with IEPs and without IEPs enrolled in this child's class? PLEASE ENTER ONE NUMBER ON EACH LINE. IF THE CHILD IS ENROLLED IN MORE THAN ONE CLASS, PLEASE RESPOND FOR THE CLASS IN WHICH THE CHILD SPENDS THE MOST TIME.

Number of preschoolers with IEPs in child's class

Number of preschoolers without IEPs in child's class

} If "0," go to Question A4

**A3.** Among the children without IEPs in this child's main classroom, how many are currently under formal review for special education services? PLEASE ENTER ONE NUMBER.

Number of children under formal review

- A4.** How many of the following people are usually in the room during the majority of this child's time in the classroom? PLEASE ENTER ONE NUMBER ON EACH LINE. COUNT EACH PERSON ONLY ONCE. ENTER "0" IF NONE.

	Number of people
a. Early childhood or preschool teachers (not special education)	<input type="text"/>
b. Special education teachers	<input type="text"/>
c. One-to-one assistants or aides assigned to this child	<input type="text"/>
d. One-to-one assistants or aides assigned to any other child in this child's class	<input type="text"/>
e. Early childhood or preschool aides	<input type="text"/>
f. Special education aides	<input type="text"/>
g. Other specialists or therapists	<input type="text"/>
h. Nurse or other medical personnel	<input type="text"/>
i. Adult volunteers	<input type="text"/>
j. Other	<input type="text"/>

- A5.** Approximately how many TOTAL hours per week does this child spend in your classroom or instructional setting?

TOTAL number of hours per week

- A6.** Approximately how much school time per week does this child currently spend in the following settings? PLEASE INDICATE EITHER MINUTES OR HOURS PER WEEK

	Number of minutes/week	OR	Number of hours/week
a. Regular education classroom	<input type="text"/>		<input type="text"/>
b. Special education setting	<input type="text"/>		<input type="text"/>
c. Therapy setting (office, small room, etc.)	<input type="text"/>		<input type="text"/>
d. Nonspecial education setting outside of the classroom specifically for remedial or special assistance	<input type="text"/>		<input type="text"/>
e. Home instruction	<input type="text"/>		<input type="text"/>



**A7.** What percentage of the day does this child spend in the following activities?  
THE PERCENTAGES YOU PROVIDE SHOULD TOTAL 100%. PLEASE EXCLUDE TIME FOR LUNCH AND RECESS IN CALCULATING PERCENTAGES.

a. Instructional or therapy services outside the classroom	<input type="text"/>	%
b. Adult-directed whole class activities	<input type="text"/>	%
c. Adult-directed small group activities	<input type="text"/>	%
d. Adult-directed individual activities	<input type="text"/>	%
e. Child-selected activities	<input type="text"/>	%
f. Other (Specify: _____)	<input type="text"/>	%

**A8.** What kinds of activities and materials are routinely available to this child in your classroom or program? PLEASE  CHECK ALL THAT APPLY.

	Activity code
a. Arts and crafts projects and materials, clay, or playdough	01 <input type="radio"/>
b. Blocks, Legos, K'nex, other building toys	02 <input type="radio"/>
c. Sand and water play	03 <input type="radio"/>
d. Playhouse, toy kitchen, dishes, plastic food	04 <input type="radio"/>
e. Dress-up, costumes, puppets, theater props	05 <input type="radio"/>
f. Children's books and magazines	06 <input type="radio"/>
g. Sensory table (e.g., cornmeal, beans, and other tactile materials)	07 <input type="radio"/>
h. Paper, coloring books, crayons, pencils, pens	08 <input type="radio"/>
i. Playground equipment (e.g., climbing structure, swings, trikes or bikes, digging tools)	09 <input type="radio"/>
j. Balls (of various sizes), Nerf-style toys, sports equipment	10 <input type="radio"/>
k. Computer and software	11 <input type="radio"/>
l. Video games	12 <input type="radio"/>
m. Board games	13 <input type="radio"/>
n. Toys: vehicles and work machines (e.g., cars, trains, trucks, backhoe loaders)	14 <input type="radio"/>

	Activity code
o. Toys: tools (e.g., hammer, stethoscope, cash register, cell phone)	15 <input type="radio"/>
p. Dolls and stuffed animals	16 <input type="radio"/>
q. Commercial toys (e.g., action figures, Barbie)	17 <input type="radio"/>
r. Commercial educational toys (e.g., light-bright, puzzles, sorting cups, bead stringing)	18 <input type="radio"/>
s. Musical instruments	19 <input type="radio"/>
t. Tape or CD player with tapes and CDs	20 <input type="radio"/>
u. Nap/rest time	21 <input type="radio"/>
v. Breakfast	22 <input type="radio"/>
w. Lunch/snack	23 <input type="radio"/>
x. Hot lunch	24 <input type="radio"/>
y. Commercial television/videotapes	25 <input type="radio"/>
z. Educational television/videotapes	26 <input type="radio"/>
aa. Flashcards	27 <input type="radio"/>
bb. Counting and number materials	28 <input type="radio"/>
cc. Alphabet and language materials	29 <input type="radio"/>

- A9.** Of the items specified earlier, what three activities or materials does **this child** engage in most often in your classroom or program? **Do not include meals or naps.** USE THE ACTIVITY CODE THAT CORRESPONDS WITH THE ACTIVITY FROM A8.

	Activity code from list
a. Most frequent activity	<input type="text"/>
b. Second most frequent activity	<input type="text"/>
c. Third most frequent activity	<input type="text"/>



**A10.** During play time, how does this child compare with other children in the class in terms of physical activity? PLEASE ✓CHECK ONE.

- 1  A lot less active than most
  - 2  A little less active than most
  - 3  About the same as most
  - 4  A little more active than most
  - 5  A lot more active than most
- 

**A11.** Compared to his/her classmates, how many friends does this child have in your classroom? PLEASE ✓CHECK ONE.

- 1  Far fewer than most
  - 2  Fewer than most
  - 3  As many as most
  - 4  More than most
  - 5  Far more than most
- 

**A12.** Overall, how appropriate do you think this child's placement is in your classroom? PLEASE ✓CHECK ONE.

- 1  Very appropriate
  - 2  Somewhat appropriate
  - 3  Not very appropriate
  - 4  Not at all appropriate
  - 5  Don't know
- 

**A13.** Which of the following methods do you commonly use to assess how well this child is doing in your class? PLEASE ✓CHECK ALL THAT APPLY.

- 01  a. Impressions based on experience with child and written notes about specific events
  - 02  b. Direct observation with general anecdotal notes
  - 03  c. Direct observation with checklist of skills
  - 04  d. Direct assessment or testing
  - 05  e. Video/audio recording
  - 06  f. Portfolios of children's work samples
  - 07  g. Other (Specify: \_\_\_\_\_)
  - 08  h. Child progress is not formally monitored
  - 09  i. Not sure
-

**A14.** How do you communicate with the parents or guardians of this child?

PLEASE ✓ CHECK ALL THAT APPLY.

- 01  a. I give parents regular written progress reports.
- 02  b. I call them on the phone, send email, or send notes home.
- 03  c. I speak with parents before or after school when this child is being dropped off or picked up.
- 04  d. We have regularly scheduled parent-teacher meetings.
- 05  e. We share a daily or weekly journal for this child.
- 06  f. There is a regular system for communicating with parents (e.g., newsletter or phone tree).
- 07  g. Parents have access to the school's web site with information specifically for parents.
- 08  h. Other (Specify: \_\_\_\_\_)

**A15.** During this school year, approximately how often have you and this child's parents or guardians communicated (by phone, in person, or in writing) about his/her progress, excluding routine progress reports or report cards? PLEASE ✓ CHECK ONE.

- 1  At least once a week
- 2  A few times a month
- 3  About once a month
- 4  Less than once a month
- 0  Never

**A16.** How involved is this child's parent or guardian in his/her school experiences (e.g., monitoring homework or child's progress in school)? PLEASE ✓ CHECK ONE.

- 1  Not at all involved
- 2  Not very involved
- 3  Fairly involved
- 4  Very involved
- 8  Don't know



**A17.** The following are statements commonly associated with various educational philosophies. Which three statements best describe your approach to working with this child?

- Write the number 1 next to the most important approach.
- Write the number 2 next to the second most important approach.
- Write the number 3 next to the third most important approach.

	Rank 1, 2, 3 Use each number only once.
a. We assume that children learn naturally when they are developmentally ready. The interest of the child and age appropriateness of skills are emphasized in determining program content.	<input type="text"/>
b. We believe that teaching children the knowledge and skills they need to succeed in school is critical. Structured learning experiences in academic content areas are a central part of the program.	<input type="text"/>
c. We emphasize principles of behavior modification and precision teaching. Target behaviors are specified and skills are sequenced and taught using strategies such as modeling, prompting, fading, and reinforcing of successive approximation.	<input type="text"/>
d. We combine developmental theory with a behavioral model to identify target behaviors and use behavioral strategies when appropriate.	<input type="text"/>
e. We emphasize the way individual children and parents/guardians influence each other's behavior. Interventions target primarily the parent/guardian, who is taught to interpret the child's behavior and respond appropriately.	<input type="text"/>
f. We focus on a child's medical diagnosis and concentrate on therapeutic interventions.	<input type="text"/>
g. We recognize that the child is a member of a family system and base services on the perceived strengths and priorities of family members.	<input type="text"/>
h. Other (Specify: _____ _____)	<input type="text"/>

**A18.** Where was this child enrolled or receiving services 1 year ago? PLEASE ✓ CHECK ONE.

- 1  Exact same setting as now
  - 2  Same school setting but different classroom
  - 3  Not sure, don't know where child was
  - 4  Some other program or at home → Continue with Question A19
- } Go to Question A23

**A19.** Which of the following strategies were used before the child started in your program in order to support this child's transition into your school, program, or classroom?

PLEASE ✓ CHECK ONE IN EACH ROW.

	Yes	No	Don't know
a. You received the child's previous records.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
b. The sending program provided information about this child.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
c. Someone from your program provided parents with written information about your program.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
d. Someone from your program called the child's parents.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
e. The parents or guardians of this child were encouraged to meet the staff before the child entered the school or program.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
f. This child and family visited your classroom or school.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
g. Someone from your program visited the child's home.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
h. Someone from your program visited the child's previous setting.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
i. Someone from your program met with staff of the sending program specifically about this child.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
j. Someone from your program participated in IEP development for this child.	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
k. Your staff developed preparatory strategies specifically for this child (e.g., behavior plans, school scheduling modifications, etc.).	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
l. Other (Specify: _____)	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>



**A20.** How adequate were the planning and support that were provided to this child and his/her family during the transition into your class or program?

PLEASE ✓CHECK ONE.

- 1  Extremely adequate
  - 2  Somewhat adequate
  - 3  Not very adequate
  - 4  Transition planning and support were not needed for this child or family
  - 5  Don't know
- 

**A21.** To what extent were you involved in planning this child's transition into your class or program? PLEASE ✓CHECK ONE.

- 1  Not at all
  - 2  Somewhat
  - 3  Extensively
  - 4  Not applicable — transition planning not done
- 

**A22.** How easy was it for this child to make the transition into your class or program?

PLEASE ✓CHECK ONE.

- 1  Very easy
  - 2  Somewhat easy
  - 3  Somewhat difficult
  - 4  Very difficult
- 

**A23.** Do you anticipate that this child will be involved in any of the following transitions at the end of this school year? PLEASE ✓CHECK ONE.

- 1  No transitions anticipated this coming year
  - 2  This preschool to no preschool
  - 3  This preschool class to another preschool class
  - 4  Preschool to kindergarten
- } Go to Question A25  
} Continue with Question A24
-

**A24.** To the best of your knowledge, what school or program and grade level do you anticipate this child will be in next year? PLEASE ✓CHECK ONE.

	Preschool	Kindergarten	Other
a. Same school as this year	1 <input type="radio"/>	2 <input type="radio"/>	(Specify: _____)
b. Different school next year	1 <input type="radio"/>	2 <input type="radio"/>	(Specify: _____)
c. Don't know	1 <input type="radio"/>	2 <input type="radio"/>	(Specify: _____)

Please write the name and address of the school (if known) if you expect this child will attend a different school next year.

Name of new school: \_\_\_\_\_

School address: \_\_\_\_\_

**A25.** Does this child currently have either an IEP or IFSP for children with disabilities? PLEASE ✓CHECK ONE.

- 1  Yes, this child has an IEP or IFSP for special education services. → Continue with Question A26
- 2  No, this child does not have an IEP or IFSP. → Go to Question B1
- 3  Don't know. → Go to Question A28

**A26.** How are this child's IEP goals and objectives addressed in the regular education classroom? PLEASE ✓CHECK THE ONE THAT BEST DESCRIBES HOW GOALS AND OBJECTIVES ARE ADDRESSED.

- 00  Not applicable—the child is not in a regular education classroom.
- 01  Not applicable—this child's IEP goals are not addressed in the regular education classroom; they are addressed elsewhere.
- 02  The special education teacher or aide works individually with the child on special tasks.
- 03  The early childhood education teacher or aide works individually with the child on special tasks.
- 04  Related services personnel work individually with the child on special tasks.
- 05  Related services personnel work with the child in group activities.
- 06  The goals and objectives are embedded in common classroom activities.

**A29.** Does your program support social interaction between this child and children without disabilities?

- 1  Yes. → Continue with Question A30
  - 2  Not applicable—we do not currently have children without disabilities enrolled in this class or program.
  - 3  Not applicable—this child does not have contact with children without disabilities during our program.
  - 4  Not applicable—no support is needed.
  - 5  No.
- } Go to Question A31

**A30.** Does your program use any of the following methods to support social interaction between this child and children without disabilities?

PLEASE ✓ CHECK ONE IN EACH ROW.

	Yes	No
a. We present a specific disability awareness program during group times.	1 <input type="radio"/>	2 <input type="radio"/>
b. We assign children without disabilities to be "helpers" or "buddies" to this child.	1 <input type="radio"/>	2 <input type="radio"/>
c. We prompt and reinforce this child for initiating and maintaining interactions with children without disabilities.	1 <input type="radio"/>	2 <input type="radio"/>
d. We prompt and reinforce the children without disabilities for initiating and maintaining interactions with this child.	1 <input type="radio"/>	2 <input type="radio"/>
e. We structure play and task situations so that they require interaction between this child and children without disabilities.	1 <input type="radio"/>	2 <input type="radio"/>
f. Other (Specify: _____)	1 <input type="radio"/>	2 <input type="radio"/>



**A31.** Overall, how adequate are the supports that are provided to **this child** because of his/her disabilities? PLEASE ✓ CHECK ONE.

- 1  Very adequate
  - 2  Somewhat adequate
  - 3  Not very adequate
  - 4  Not at all adequate
  - 8  Don't know
  - 0  No support is needed
- 

**A32.** Overall, how adequate are the supports and resources that are provided to you for **this child** because of his/her disabilities? PLEASE ✓ CHECK ONE.

- 1  Very adequate
  - 2  Somewhat adequate
  - 3  Not very adequate
  - 4  Not at all adequate
  - 8  Don't know
  - 0  No support is needed
-







## GROSS AND FINE MOTOR SKILLS

The Vineland Motor Skills checklist is divided into two domains: (1) gross motor and (2) fine motor. After reading the item, decide whether or not you have actually observed situations in which the child performed the activity. If you have observed the child in the situation, then select a rating from one of the *OBSERVED* performance columns. If you haven't, or if you are unsure, then select a rating from one of the *ESTIMATED* performance columns. Please note that there is no penalty for selecting the *Estimated* performance columns over the *Observed* performance columns.

Select a rating that best describes what you have observed or estimate the child does. Be careful not to make a rating based on what you think the child can or could do if given the opportunity.

Items with multiple activities (e.g., screws and unscrews jar lids; marks with pencil, crayon, or chalk) require special attention. Items with **AND** require that both activities be performed by the child. Items with **OR** require only one of the activities be performed by the child.

Check *USUALLY* if the child satisfactorily and habitually performs the activity.

Check *SOMETIMES OR PARTIALLY* if the activity is in an emergent or transitional state, if the activity is only sometimes performed with complete success, or if only part of the activity is performed with complete success.

Check *NEVER* if the child does not or seldom performs the activity, or if limiting circumstances (e.g., physical limitation or sensory impairment) prevent the performance of the activity.

Please be sure to check one circle in each row. Leaving a row blank will invalidate the child's score.

### B6. Gross Motor

PLEASE ✓ ONE IN EACH ROW.

THIS CHILD...	Observed			Estimated		
	Usually	Sometimes or partially	Never	Usually	Sometimes or partially	Never
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

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continued >



THIS CHILD...	Observed			Estimated		
	Usually	Sometimes or partially	Never	Usually	Sometimes or partially	Never
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>		3 <input type="radio"/>	4 <input type="radio"/>		6 <input type="radio"/>
	1 <input type="radio"/>		3 <input type="radio"/>	4 <input type="radio"/>		6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

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**B7. Fine Motor**  
PLEASE ✓ ONE IN EACH ROW.

	Observed Sometimes			Estimated Sometimes		
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>		3 <input type="radio"/>	4 <input type="radio"/>		6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

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Please continue with Section C: "About You" on the next page. →



## Section C:

### ABOUT YOU

**C1.** About how many years have you been working with children ages 3 through 5 and children with disabilities? PLEASE GIVE YOUR BEST ESTIMATE.

- |   |                      |
|---|----------------------|
| a. Number of years working with children ages 3 through 5                   | <input type="text"/> |
| b. Number of years working with children with disabilities                  | <input type="text"/> |
| c. Number of years working with children ages 3 through 5 with disabilities | <input type="text"/> |

**C2.** About how many years have you been in your current job?  
PLEASE GIVE YOUR BEST ESTIMATE.

Number of years in current job

**C3.** Which of the following employee benefits are provided as part of your job?  
PLEASE  CHECK ALL THAT APPLY.

- 1  a. None
- 2  b. Paid vacation and holidays
- 3  c. Paid sick leave
- 4  d. Health insurance
- 5  e. Contribution to a retirement plan
- 6  f. Other

**C4.** How satisfied are you with working with young children? Would you say you are...  
PLEASE  CHECK ONE.

- 1  Very satisfied
- 2  Satisfied
- 3  Neither satisfied nor dissatisfied
- 4  Dissatisfied
- 5  Very dissatisfied

**C5.** How likely are you to continue working in your current job through the next school year? PLEASE ✓CHECK ONE.

- 1  Very likely
- 2  Somewhat likely
- 3  Somewhat unlikely
- 4  Very unlikely

**C6.** Which of the following best represents your views on the education of children ages 3 through 5 with disabilities (regardless of the type of class or school you work in)? PLEASE ✓CHECK ONE.

- 1  Children with disabilities should be taught full time in separate classrooms that are specially designed and programmed for children with disabilities.
- 2  Children with disabilities should be taught in special classrooms but should have some time each day to socialize with children who do not have disabilities.
- 3  The child's placement should depend on the severity or type of disability.
- 4  All children with disabilities should be taught full time in regular early childhood classrooms.
- 5  Other (Specify: \_\_\_\_\_)
- 6  No opinion, or not sure.

**C7.** Think about all of your professional education, training, and experience taken together. Please indicate the extent to which you are adequately prepared to work with the following:

PLEASE ✓CHECK ONE IN EACH ROW. PLEASE DO NOT MARK BETWEEN THE CIRCLES.

	Not at all prepared						Extremely well prepared
a. Preparation to work with children ages 3 through 5 with disabilities	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b. Preparation to work with families of children ages 3 through 5 with disabilities	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

**C9.** Using the discipline codes listed earlier, please write in the space provided here any discipline(s) in which you hold a professional license, credential, or certificate.

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Professional license(s), credential(s), or certificate(s) held

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**C10.** Did any of your degree or license programs involve training or preparation to work specifically with children ages 3 through 5 with disabilities? PLEASE ✓CHECK ONE.

- 1  Yes
  - 2  No
  - 3  No degree or license
- 

**C11.** Did any of your degree or license programs involve training or preparation to work specifically with families of children with disabilities? PLEASE ✓CHECK ONE.

- 1  Yes
  - 2  No
  - 3  No degree or license
- 

**C12.** Do you have an immediate family member with a disability (e.g., a spouse, child, parent, sibling)? PLEASE ✓CHECK ONE.

- 1  Yes
  - 2  No
- 

**C13.** What is your gender? PLEASE ✓CHECK ONE.

- 1  Female
  - 2  Male
- 

**C14.** Are you Hispanic or Latino? PLEASE ✓CHECK ONE.

- 1  Yes
  - 2  No
-



**C15.** What is your race? PLEASE ✓ CHECK ALL THAT APPLY.

- 1  a. American Indian or Alaska Native
- 2  b. Asian
- 3  c. Black or African American
- 4  d. Native Hawaiian or Other Pacific Islander
- 5  e. White

**C16.** What is your age? PLEASE ✓ CHECK ONE.

- 1  20 years old or younger
- 2  21 to 30 years old
- 3  31 to 40 years old
- 4  41 to 50 years old
- 5  51 to 60 years old
- 6  More than 60 years old

**C17.** We want to know what you think about special education for young children.

In the space provided, please print any suggestions or concerns you have regarding the provision of special education services for young children. *(Be assured that your answers will be confidential.)*

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Please continue with Section D. →

## Instructions for Section D of this Questionnaire:

1. Section D of the questionnaire is to be completed **only** for children with IEPs or 504 plans. Does this child have an IEP or 504 plan?
  - YES, this child **DOES** have an IEP or 504 plan. Please continue with next question.
  - NO, this child does **NOT** have an IEP or 504 plan. Please go to page 37 of this questionnaire.
2. Section D is to be completed by the teacher or specialist most familiar with the child's special education and related services. Can you describe this child's special services?
  - YES. Please continue with Section D on the next page.
  - NO. Please remove Section D and give it to the person who you feel could best answer questions about this child's special education or related services. Please provide this person's name and phone number below. When this person completes Section D, please have him or her return it directly to Westat using the self-mailer.

Name: \_\_\_\_\_

Phone: (      ) \_\_\_\_\_

*Thank you for completing  
this questionnaire.*

<b>Date Completed:</b> ____/____/____ mm dd yy	<b>Please provide your name and contact information below, so that we can reach you if we have questions.</b>
<b>Your Name:</b> _____	
<b>School/Program Name:</b> _____	
<b>Address:</b> _____	
<b>Phone:</b> (      ) _____	
<b>Email:</b> _____	

*Please continue to the back cover.*

APPENDIX F  
PEELS KINDERGARTEN TEACHER QUESTIONNAIRE

Pre-Elementary Education Longitudinal Study

**Kindergarten Teacher  
Questionnaire**



*friends*

**PEELS**



*learn*



*grow*

*“because all children should count...  
read, learn, grow, and have friends...”*

Funded by the US Department of Education,  
Office of Special Education Programs

## Pre-Elementary Education Longitudinal Study

# Kindergarten Teacher Questionnaire

### *Dear Teacher:*

Your school district is participating in an important U.S. Department of Education study called the Pre-Elementary Education Longitudinal Study (PEELS). The child named on the label is one of more than 3,000 children nationwide who are taking part in PEELS.

The study will follow the children as they move through kindergarten and into the early elementary school years. This questionnaire is the only source of information about the kindergarten programs and experiences for this child. Because of this, your opinions are vitally important.

Please complete this questionnaire and return it in the postage-paid envelope within 3 weeks. Answer all questions to the best of your knowledge and use your best guess when answering questions for which you are not quite sure of the answer. However, try as best you can to avoid responses that represent complete guesses. If necessary, please consult with colleagues in answering questions. Be assured that your answers will be confidential, and no information will be reported that identifies you, this child, or this school. We have enclosed \$10 as a token of our appreciation.

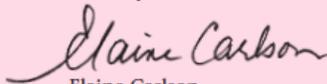
Before beginning this questionnaire, you may want to gather the following information so that you will be able to complete the questionnaire more quickly:

- The school file for the child whose name is on the label, including, if applicable, the most recent Individualized Education Program (IEP);
- Attendance records for this child during October of this school year; and
- Child's previous school records.

If you have any questions about the study or the questionnaire, please feel free to call the PEELS toll-free hot line at 1-888-534-8348, send an email to [questions@peels.org](mailto:questions@peels.org), or visit the PEELS web site at [www.peels.org](http://www.peels.org).

Thank you so much for your contribution to this very important study.

Sincerely,



Elaine Carlson  
Project Director, PEELS

**Call the PEELS  
toll-free hot line:  
1-888-534-8348**

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1820-0656. The time required to complete this information collection is estimated to average 20 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. **If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to:** US Department of Education, Washington, D.C. 20202-4651. **If you have comments or concerns regarding the status of your individual submission of this form, write directly to:** Office of Special Education Programs, US Department of Education, Switzer Building, Room 4622, 330 C Street, SW, Washington, D.C. 20202-4651.

OMB Control # 1820-0656, Expiration date: 11/30/04

## Who should complete this questionnaire?

This questionnaire should be completed by the **teacher or service provider** who **knows the child whose name appears on the label above** and can describe the kindergarten program or special education and related services for this child.

- Can you tell us about the child whose name appears on the label?
  - 1  Yes
  - 2  No
  
- Can you tell us about this child's kindergarten program?
  - 1  Yes
  - 2  No
  
- Can you tell us about special services this child receives (e.g., speech therapy)?
  - 1  Yes
  - 2  No

If you answered **NO** to **ALL** three questions:

**DO NOT COMPLETE THIS QUESTIONNAIRE. PLEASE PASS THE QUESTIONNAIRE ON TO THE PERSON WHO IS BEST ABLE TO DESCRIBE THIS CHILD'S KINDERGARTEN PROGRAM OR SPECIAL SERVICES.**

If you answered **YES** to **ANY** of the three questions:

**PLEASE PROCEED TO SECTION A →**

### *notes:*

- If the child does not attend a kindergarten class but receives services, interpret references to the child's class to mean the service setting.
- Any question referring to IEPs (Individualized Education Programs for a child with a disability) is meant to refer also to IFSPs (Individualized Family Service Plans for a child with a disability) in states using the latter for children ages 3 through 5.

# Section A:

## KINDERGARTEN PROGRAM AND CHILD PROGRESS

REMINDER: "This child" refers to the child whose name appears on the label.

A1. What is the current grade level placement of this child? PLEASE ✓CHECK ONE.

- 1  Kindergarten
- 2  Ungraded
- 3  Other (Specify: \_\_\_\_\_)

A2. Approximately how much school time per week does this child currently spend in the following settings? PLEASE INDICATE EITHER MINUTES OR HOURS PER WEEK.

	Number of minutes/week	OR	Number of hours/week
a. Regular education classroom	<input type="text"/>		<input type="text"/>
b. Special education setting	<input type="text"/>		<input type="text"/>
c. Therapy/special service setting (office, small room, etc.)	<input type="text"/>		<input type="text"/>
d. Setting outside of the classroom for other remediation or assistance (e.g. Title I, English as a second language [ESL])	<input type="text"/>		<input type="text"/>
e. Home instruction	<input type="text"/>		<input type="text"/>

A3. Which of the settings below is considered to be this child's main education setting? PLEASE ✓CHECK ONE.

- 01  Regular education classroom
- 02  Special education setting
- 03  Home
- 04  Other (Specify: \_\_\_\_\_)

**A4.** In what capacity (or capacities) are you involved with this child?

PLEASE ✓CHECK ALL THAT APPLY.

- 01  a. Provide instruction directly to this child
- 02  b. Provide related services directly to this child
- 03  c. Provide consultation to this child's teacher(s)
- 04  d. Provide case management (e.g., program monitoring) for this child
- 05  e. Program administrator/supervisor
- 06  f. Supervise instructional assistant assigned to work with this child
- 07  g. Other (Specify: \_\_\_\_\_)

**A5.** What is your main role in this school? PLEASE ✓CHECK ONE.

- 1  Regular education classroom teacher
- 2  Special education teacher
- 3  Related service provider (Specify: \_\_\_\_\_)
- 4  Other (Specify: \_\_\_\_\_)

**A6.** How many years have you been teaching or working in your current professional capacity?

Number of years

**A7.** What are the total numbers of children with IEPs and without IEPs enrolled in this child's main class? PLEASE ENTER ONE NUMBER ON EACH LINE. IF THE CHILD IS ENROLLED IN MORE THAN ONE CLASS, PLEASE RESPOND FOR THE CLASS IN WHICH THE CHILD SPENDS THE MOST TIME.

Number of children with IEPs in child's class

Number of children without IEPs in child's class  } If "0," go to Question A9

**A8.** Among the children without IEPs in this child's main classroom, how many are currently under formal review for special education services?

PLEASE ENTER ONE NUMBER.

Number of children under formal review

A9. Approximately how many TOTAL hours per week does this child spend in your classroom or instructional setting?

Number of hours per week

A10. How many of the following people are usually in the room during the majority of this child's time in your classroom?

PLEASE ENTER ONE NUMBER ON EACH LINE. ENTER "0" IF NONE.

	Number of people
a. Kindergarten teachers (not special education)	<input type="text"/>
b. Special education teachers	<input type="text"/>
c. One-to-one assistants or aides assigned to this child	<input type="text"/>
d. One-to-one assistants or aides assigned to any other child in this child's class	<input type="text"/>
e. Kindergarten aides	<input type="text"/>
f. Special education aides	<input type="text"/>
g. Other specialists or therapists	<input type="text"/>
h. Nurse or other medical personnel	<input type="text"/>
i. Adult volunteers	<input type="text"/>
j. Other	<input type="text"/>

**A11.** Does this child participate in the following? PLEASE ✓ CHECK ONE IN EACH ROW.

	Yes	No	Don't know
a. Program for gifted and talented students	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
b. Title I	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
c. Bilingual education or instruction for English language learners (ELL) (e.g., ESL or limited English proficient [LEP])	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
d. Program for children with behavioral or emotional problems	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
e. Free/reduced-price lunch program	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>

**A12.** Which of the following best describes the curriculum materials for this child?

PLEASE ✓ CHECK ONE.

- 1  Regular education grade-level curriculum materials are used without modification
- 2  Some modifications in regular education curriculum materials have been made
- 3  Substantial modifications in regular curriculum materials have been made
- 4  Specialized curriculum or materials are used

**A13.** What percentage of the day does this child spend in the following activities? THE PERCENTAGES YOU PROVIDE SHOULD TOTAL 100%. PLEASE EXCLUDE TIME FOR LUNCH AND RECESS IN CALCULATING PERCENTAGES.

a. Instructional or therapy services outside the classroom	%
b. Adult-directed whole class activities	%
c. Adult-directed small group activities	%
d. Adult-directed individual activities	%
e. Child-selected activities	%
f. Other (Specify: _____)	%

**A14.** Which of the following teaching practices and methods are used with this child on a regular basis? PLEASE ✓CHECK ONE IN EACH ROW.

	Yes	No	Don't know
a. One-on-one instruction	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
b. Small-group instruction	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
c. Large-group instruction	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
d. Cooperative learning	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
e. Peer tutoring	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
f. Computer-based instruction	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
g. Direct instruction	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
h. Cognitive strategies	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
i. Self-management	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
j. Behavior management	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>
k. Discrete trial training	1 <input type="radio"/>	2 <input type="radio"/>	8 <input type="radio"/>

**A15.** What kinds of activities and materials are routinely available to this child in your classroom or program? PLEASE ✓CHECK ALL THAT APPLY.

	Activity code
a. Arts and crafts projects and materials, clay, or playdough	01 <input type="radio"/>
b. Blocks, Legos, K'nex, other building toys	02 <input type="radio"/>
c. Sand and water play	03 <input type="radio"/>
d. Playhouse, toy kitchen, dishes, plastic food	04 <input type="radio"/>
e. Dress-up, costumes, puppets, theater props	05 <input type="radio"/>
f. Children's books and magazines	06 <input type="radio"/>
g. Sensory table (e.g., cornmeal, beans, and other tactile materials)	07 <input type="radio"/>

continued >

	Activity code
h. Paper, coloring books, crayons, pencils, pens	08 <input type="radio"/>
i. Playground equipment (e.g., climbing structure, swings, trikes or bikes, digging tools)	09 <input type="radio"/>
j. Balls (of various sizes), Nerf-style toys, sports equipment	10 <input type="radio"/>
k. Computer and software	11 <input type="radio"/>
l. Video games	12 <input type="radio"/>
m. Board games	13 <input type="radio"/>
n. Toys: vehicles and work machines (e.g., cars, trains, trucks, backhoe loaders)	14 <input type="radio"/>
o. Toys: tools (e.g., hammer, stethoscope, cash register, cell phone)	15 <input type="radio"/>
p. Dolls and stuffed animals	16 <input type="radio"/>
q. Commercial toys (e.g., action figures, Barbie)	17 <input type="radio"/>
r. Commercial educational toys (e.g., light-bright, puzzles, sorting cups, bead stringing)	18 <input type="radio"/>
s. Musical instruments	19 <input type="radio"/>
t. Tape or CD player with tapes and CDs	20 <input type="radio"/>
u. Nap/rest time	21 <input type="radio"/>
v. Breakfast	22 <input type="radio"/>
w. Lunch/snack	23 <input type="radio"/>
x. Hot lunch	24 <input type="radio"/>
y. Commercial television/videotapes	25 <input type="radio"/>
z. Educational television/videotapes	26 <input type="radio"/>
aa. Flashcards	27 <input type="radio"/>
bb. Counting and number materials	28 <input type="radio"/>
cc. Alphabet and language materials	29 <input type="radio"/>

**A16.** Of the items specified earlier, what three activities or materials does this child engage in most often in your classroom or program? Do not include meals or naps. USE THE ACTIVITY CODE THAT CORRESPONDS WITH THE ACTIVITY FROM A15.

	Activity code from list
a. Most frequent activity	<input type="text"/>
b. Second most frequent activity	<input type="text"/>
c. Third most frequent activity	<input type="text"/>

**A17.** The following are statements commonly associated with various educational philosophies. Which three statements best describe your approach to working with this child?

- Write the number 1 next to the most important approach.
- Write the number 2 next to the second most important approach.
- Write the number 3 next to the third most important approach.

	Rank 1, 2, 3 Use each number only once.
a. We assume that children learn naturally when they are developmentally ready. The interest of the child and age appropriateness of skills are emphasized in determining program content.	<input type="text"/>
b. We believe that teaching children the knowledge and skills they need to succeed in school is critical. Structured learning experiences in academic content areas are a central part of the program.	<input type="text"/>
c. We emphasize principles of behavior modification and precision teaching. Target behaviors are specified and skills are sequenced and taught using strategies such as modeling, prompting, fading, and reinforcing of successive approximation.	<input type="text"/>
d. We combine developmental theory with a behavioral model to identify target behaviors and use behavioral strategies when appropriate.	<input type="text"/>
e. We emphasize the way individual children and parents/guardians influence each other's behavior. Interventions target primarily the parent/guardian, who is taught to interpret the child's behavior and respond appropriately.	<input type="text"/>
f. We focus on a child's medical diagnosis and concentrate on therapeutic interventions.	<input type="text"/>
g. We recognize that the child is a member of a family system and base services on the perceived strengths and priorities of family members.	<input type="text"/>
h. Other (Specify: _____ _____)	<input type="text"/>

**A18.** Overall, how would you rate this child's academic skills compared to typical children of the same grade level? PLEASE ✓CHECK ONE.

- 1  Far below average
  - 2  Below average
  - 3  Average
  - 4  Above average
  - 5  Far above average
- 

**A19.** During play time, how does this child compare with other children in the class in terms of physical activity? PLEASE ✓CHECK ONE.

- 1  A lot less active than most
  - 2  A little less active than most
  - 3  About the same as most
  - 4  A little more active than most
  - 5  A lot more active than most
- 

**A20.** Compared to his/her classmates, how many friends does this child have in your classroom? PLEASE ✓CHECK ONE.

- 1  Far fewer than most
  - 2  Fewer than most
  - 3  As many as most
  - 4  More than most
  - 5  Far more than most
- 

**A21.** Overall, how appropriate do you think this child's placement is in your classroom? PLEASE ✓CHECK ONE.

- 1  Very appropriate
  - 2  Somewhat appropriate
  - 3  Not very appropriate
  - 4  Not at all appropriate
  - 5  Don't know
-







## GROSS AND FINE MOTOR SKILLS

The Vineland Motor Skills checklist is divided into two domains: (1) gross motor and (2) fine motor. After reading the item, decide whether or not you have actually observed situations in which the child performed the activity. If you have observed the child in the situation, then select a rating from one of the *OBSERVED* performance columns. If you haven't, or if you are unsure, then select a rating from one of the *ESTIMATED* performance columns. Please note that there is no penalty for selecting the *Estimated* performance columns over the *Observed* performance columns.

Select a rating that best describes what you have observed or estimate the child does. Be careful not to make a rating based on what you think the child can or could do if given the opportunity.

Items with multiple activities (e.g., screws and unscrews jar lids; marks with pencil, crayon, or chalk) require special attention. Items with **AND** require that both activities be performed by the child. Items with **OR** require only one of the activities be performed by the child.

Check *USUALLY* if the child satisfactorily and habitually performs the activity.

Check *SOMETIMES OR PARTIALLY* if the activity is in an emergent or transitional state, if the activity is only sometimes performed with complete success, or if only part of the activity is performed with complete success.

Check *NEVER* if the child does not or seldom performs the activity, or if limiting circumstances (e.g., physical limitation or sensory impairment) prevent the performance of the activity.

Please be sure to check one circle in each row. Leaving a row blank will invalidate the child's score.

### A24. Gross Motor

PLEASE ✓ ONE IN EACH ROW.

THIS CHILD...	Observed			Estimated		
	Usually	Sometimes or partially	Never	Usually	Sometimes or partially	Never
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

Vineland Adaptive Behavior Scale Classroom Edition Questionnaire, Motor Skills Domain by Sam Sparrow, David Bell, and Domenic Cicchetti © 1985 American Guidance Service, Inc., 407 Woodland Road, Circle Pines, MN 55014-1794. Permission to reproduce granted to Winlid for research purposes only. All rights reserved. www.vineland.com

continued >

THIS CHILD...	Observed			Estimated		
	Usually	Sometimes or partially	Never	Usually	Sometimes or partially	Never
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>		3 <input type="radio"/>	4 <input type="radio"/>		6 <input type="radio"/>
	1 <input type="radio"/>		3 <input type="radio"/>	4 <input type="radio"/>		6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

Violent/Abusive Behavior Scales Classroom Edition Questionnaire, Motor Skills Domain by Greg Schooner, David Bell, and Corinne Cicchetti © 1987 American Guidance Service, Inc., 400 Woodland Road, Circle Pines, MN 55124-1902. Permission to reproduce granted to Westat for research purposes only. All rights reserved. www.ugscs.com **continued >**



## ACADEMIC RATING SCALE

**Directions:** The Academic Rating Scale is separated into two areas: (1) language and literacy and (2) mathematical thinking. You are asked to rate this child's skills, knowledge, and behaviors within each of these areas based on your experience with this child. This is NOT a test and should not be administered directly to the child. Each question includes examples that are meant to help you think of the range of situations in which the child may demonstrate similar skills and behaviors. The examples do not exhaust all the ways that a child may demonstrate what he/she knows or can do.

The following five-point scale is used for each of the questions. It reflects the degree to which a child has acquired/chooses to demonstrate the targeted skills, knowledge, and behaviors.

- |     |   |                |   |
|-----|---|----------------|---|
| 1   | - | Not yet        | Child has <i>not yet</i> demonstrated skill, knowledge, or behavior.  |
| 2   | - | Beginning      | Child is <i>just beginning</i> to demonstrate skill, knowledge, or behavior and may do so very inconsistently.                              |
| 3   | - | In progress    | Child demonstrates skill, knowledge, or behavior <i>with some regularity</i> but varies in level of competence.                             |
| 4   | - | Intermediate   | Child demonstrates skill, knowledge, or behavior <i>with increasing regularity and average competence</i> but is not completely proficient. |
| 5   | - | Proficient     | Child demonstrates skill, knowledge, or behavior <i>competently and consistently</i> .  |
| N/A | - | Not applicable | Skill, knowledge, or behavior has <i>not been introduced</i> in classroom setting.  |

Rate only the child's current achievement or motivation. Rate this child compared to other children of the same age level. If the skill, knowledge, or behavior has been introduced in the classroom, please rate the child using the numbers 1 through 5. Check "NA" only if the skill, knowledge, or behavior has not been introduced in your classroom setting.

**Children with limited English proficiency (LEP)** (e.g., ESL, ELL): Please answer the questions based on your knowledge of this child's skills. If the child does not yet demonstrate skills in English but does demonstrate them in his/her native language, please answer the questions with the child's native language in mind.

**Children with special needs:** It may be necessary to consider adaptations for some questions to make them more inclusive for this child's skills/use of adaptive equipment. Some children may utilize alternative forms of verbal communication (e.g., sign language, communication boards) or written communication (e.g., word processors, Braille, dictation). Please answer the questions with these adaptations in mind.

**A26. Language and literacy**

PLEASE ✓ CHECK ONE IN EACH ROW.

THIS CHILD...	Not yet	Beginning	In progress	Inter-mediate	Proficient	Not applicable
a. Uses complex sentence structures (e.g., says "If she had brought her umbrella, she wouldn't have gotten wet," or "Yesterday it was raining cats and dogs," or "Why can't we go on the field trip at the same time as the first grade?").	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
b. Understands and interprets a story or other text read to him/her (e.g., reading a story just read to the group, or telling about why a story ended as it did, or connecting parts of the story to his/her own life).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
c. Easily and quickly names all upper- and lowercase letters of the alphabet.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
d. Produces rhyming words (e.g., says a word that rhymes with "chip," "shop," "drink," or "light").	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
e. Reads simple books independently (e.g., reads books with a repetitive language pattern).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
f. Uses different strategies to read unfamiliar words (e.g., examines cues from pictures or context, or uses consonant sounds to read words, or uses prior knowledge in order to make predictions).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
g. Composes simple stories (e.g., by writing about a personal experience in a journal).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
h. Demonstrates an understanding of some of the conventions of print (e.g., by using both upper- and lowercase letters when writing, or leaving spaces between words, or using a period at the end of a sentence).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
i. Uses the computer for a variety of purposes (e.g., by drawing a picture, or counting objects, or typing numbers, letters, or words).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>

**A27. Mathematical thinking**

PLEASE ✓ CHECK ONE IN EACH ROW.

THIS CHILD...	Not yet	Beginning	In progress	Inter-mediate	Proficient	Not applicable
a. Sorts, classifies, and compares math materials by various rules and attributes (e.g., creating a rule for sorting keys, such as "keys with numbers" in one pile and "keys without numbers" in another pile, or sorting shapes by several attributes such as "large plastic shapes" and "small wooden shapes").	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
b. Orders a group of objects (e.g., by ordering rods or sticks by length, or arranging pins from lightest to darkest, or musical instruments from softest to loudest).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
c. Shows an understanding of the relationship between quantities (e.g., knowing that a group of 10 small stones is the same quantity as a group of 10 larger blocks).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
d. Solves problems involving numbers using concrete objects (e.g., "Ven has six blocks, George has three, how many blocks are there in all?" or "How many do I need to give George so he will have the same number of blocks as Ven?").	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
e. Demonstrates an understanding of graphing activities (e.g., by looking at a picture graph on favorite ice-cream flavors and knowing which flavor is the most popular and which one is the best).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
f. Uses instruments accurately for measuring (e.g., by using a balance scale to compare the weight of two objects, or using tablespoons and teaspoons during a cooking project, or using a measuring tape to measure the length of different objects).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>
g. Uses a variety of strategies to solve math problems (e.g., using manipulative materials, looking for a pattern, or acting out a problem).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	0 <input type="radio"/>

**A28.** Which of the following methods do you commonly use to assess how well this child is doing in your class? PLEASE ✓CHECK ALL THAT APPLY.

- 01  a. Impressions based on experience with child and written notes about specific events
- 02  b. Direct observation with general anecdotal notes
- 03  c. Direct observation with checklist of skills
- 04  d. Direct assessment or testing
- 05  e. Video/audio recording
- 06  f. Portfolios of children's work samples
- 07  g. Other (Specify: \_\_\_\_\_)
- 08  h. Child progress is not formally monitored
- 09  i. Not sure

---

**A29.** Other than at IEP meetings, how do you and other staff come together to discuss and plan progress and programs for the children with IEPs in your class? PLEASE ✓CHECK ALL THAT APPLY.

- 01  a. Staff communicate on an as-needed basis.
- 02  b. We hold regular weekly meetings.
- 03  c. We hold regular biweekly meetings.
- 04  d. We hold regular monthly meetings.
- 05  e. We provide release time or change program hours so that both special education and regular education teachers can attend regularly.
- 06  f. We hold common inservice meetings and training sessions for regular education and special education staff.
- 07  g. Other (Specify: \_\_\_\_\_)

**A30.** How do you communicate with the parents or guardians of this child?

PLEASE ✓CHECK ALL THAT APPLY.

- 01  a. I give parents regular written progress reports.
  - 02  b. I regularly give parents report cards for this child.
  - 03  c. I call them on the phone, send email, or send notes home.
  - 04  d. I speak with parents before or after school when this child is being dropped off or picked up.
  - 05  e. We have regularly scheduled parent-teacher meetings.
  - 06  f. We share a daily or weekly journal for this child.
  - 07  g. There is a regular system for communicating with parents (e.g., newsletter or phone tree).
  - 08  h. Parents have access to the school's web site with information specifically for parents.
- 

**A31.** During this school year, approximately how often have you and this child's parents or guardians communicated (by phone, in person, or in writing) about his/her progress, excluding routine progress reports or report cards? PLEASE ✓CHECK ONE.

- 1  At least once a week
  - 2  A few times a month
  - 3  About once a month
  - 4  Less than once a month
  - 5  Never
- 

**A32.** How involved is this child's parent or guardian in his/her school experiences (e.g., monitoring homework or child's progress in school)? PLEASE ✓CHECK ONE.

- 1  Not at all involved
  - 2  Not very involved
  - 3  Fairly involved
  - 4  Very involved
  - 5  Don't know
-

A33. During October of this school year, how many days was this child absent?  
PLEASE ENTER THE NUMBER OF DAYS.

Number of days absent

---

A34. How many of these were unexcused absences?  
PLEASE ENTER THE NUMBER OF DAYS.

Number of unexcused absences

---

A35. Where was this child enrolled in an early childhood or kindergarten program, or receiving services 1 year ago? PLEASE ✓CHECK ONE.

- 1  Exact same school and class as now
  - 2  Same school but different kindergarten classroom
  - 3  Not sure, don't know where child was
  - 4  Preschool class in same school
  - 5  Some other program or at home
- } Go to Question A40
- } Continue with Question A36
- 

A36. To what extent were you involved in planning this child's transition into your class or program? PLEASE ✓CHECK ONE.

- 1  Not at all
  - 2  Somewhat
  - 3  Extensively
  - 4  Not applicable—transition planning not done
-

**A37.** Which of the following strategies were used before the child started in your program in order to support this child's transition into your school, program, or classroom?

PLEASE ✓ CHECK ONE IN EACH ROW.

	Yes	No	Don't know	Not applicable
a. We received the child's previous records.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
b. The sending program provided information about this child.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
c. Someone from your program provided parents with written information about your program.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
d. Someone from your program called the child's parents.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
e. The parents or guardians of this child were encouraged to meet the staff before the child entered the school or program.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
f. This child and family visited your classroom or school.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
g. Someone from your program visited the child's home.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
h. Someone from your program visited the child's previous setting.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
i. Someone from your program met with staff of the sending program specifically about this child.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
j. Someone from your program participated in IEP development for this child.	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
k. Your staff developed preparatory strategies specifically for this child (e.g., behavior plans, school scheduling modifications, etc.).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>
l. Other (Specify: _____)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	0 <input type="radio"/>

**A38.** How adequate were the planning and support that were provided to this child and his/her family during the transition into your class or program?

PLEASE ✓ CHECK ONE.

- 1  Extremely adequate
  - 2  Somewhat adequate
  - 3  Not very adequate
  - 4  Transition planning and support were not needed for this child or family
  - 8  Don't know
- 

**A39.** How easy was it for this child to make the transition into your class or program?

PLEASE ✓ CHECK ONE.

- 1  Very easy
  - 2  Somewhat easy
  - 3  Somewhat difficult
  - 4  Very difficult
- 

**A40.** Did this child have an IEP or IFSP during the year prior to this school year?

PLEASE ✓ CHECK ONE.

- 1  Yes → Continue with Question A41
  - 2  No
  - 8  Don't know
- } Go to Question A43
- 

**A41.** To what extent did you communicate with the person(s) who provided early childhood special education for this child last year? PLEASE ✓ CHECK ONE.

- 1  Not at all
  - 2  Somewhat
  - 3  Extensively
- 

**A42.** Did you review this child's records related to early intervention, special education, or other special services before this child enrolled in your school or program?

PLEASE ✓ CHECK ONE.

- 1  Yes, in detail.
  - 2  Yes, briefly.
  - 3  No, I don't have access to the records.
  - 4  No, I have access to the records, but have not reviewed them.
-

**A43.** Does this child currently have either an IEP or a 504 plan for children with disabilities? PLEASE ✓CHECK ONE.

- 1  Yes, this child has an IEP for special education services. } Continue with Question A44
- 2  Yes, this child has a 504 plan. → Go to Question A45
- 3  No, this child does not have an IEP or 504 plan. → Go to Question A50
- 4  Don't know. → Go to Question A45

**A44.** How are this child's IEP goals and objectives addressed in the regular education classroom? PLEASE ✓CHECK THE ONE THAT BEST DESCRIBES HOW GOALS AND OBJECTIVES ARE ADDRESSED.

- 01  Not applicable—the child is not in a regular education classroom.
- 02  Not applicable—this child's IEP goals are not addressed in the regular education classroom; they are addressed elsewhere.
- 03  The special education teacher or aide works individually with the child on special tasks.
- 04  The regular education teacher or aide works individually with the child on special tasks.
- 05  Related services personnel work individually with the child on special tasks.
- 06  Related services personnel work with the child in group activities.
- 07  The goals and objectives are embedded in common classroom activities.

**A45.** How would you characterize the way children with and without disabilities are brought together in this child's class or program? PLEASE ✓CHECK ONE.

- 00  Not applicable—we do not currently have children without disabilities enrolled in this class or program.
- 01  Children with and without disabilities are not in contact with one another.
- 02  Classes for children with and without disabilities share common space only (e.g., playground/lunch room).
- 03  Children without disabilities spend part of the day in the classroom for children with disabilities.
- 04  Children with disabilities spend part of the day in a classroom for children without disabilities.
- 05  Children with disabilities spend the entire day in a classroom for children primarily without disabilities.
- 06  Other (Specify: \_\_\_\_\_)
- 08  Not sure; don't know.

**A46.** Overall, how adequate are the supports that are provided to this child because of his/her disabilities? PLEASE ✓CHECK ONE.

- 1  Very adequate
- 2  Somewhat adequate
- 3  Not very adequate
- 4  Not at all adequate
- 5  Don't know
- 6  No support is needed

**A47.** Does your program support social interaction between this child and children without disabilities? PLEASE ✓CHECK ONE.

- 1  Yes. → Continue with Question A48
  - 2  Not applicable—we do not currently have children without disabilities enrolled in this class or program.
  - 3  Not applicable—this child does not have contact with children without disabilities during our program.
  - 4  Not applicable—no support is needed.
  - 5  No.
- } Go to Question A49

**A48.** Does your program use any of the following methods to support social interaction between this child and children without disabilities?

PLEASE ✓CHECK ONE IN EACH ROW.

	Yes	No
a. We present a specific disability awareness program during group times.	1 <input type="radio"/>	2 <input type="radio"/>
b. We assign children without disabilities to be "helpers" or "buddies" to this child.	1 <input type="radio"/>	2 <input type="radio"/>
c. We prompt and reinforce this child for initiating and maintaining interactions with children without disabilities.	1 <input type="radio"/>	2 <input type="radio"/>
d. We prompt and reinforce the children without disabilities for initiating and maintaining interactions with this child.	1 <input type="radio"/>	2 <input type="radio"/>
e. We structure play and task situations so that they require interaction between this child and children without disabilities.	1 <input type="radio"/>	2 <input type="radio"/>
f. Other (Specify: _____)	1 <input type="radio"/>	2 <input type="radio"/>

**A49.** Overall, how adequate are the supports and resources that are provided to you for this child because of his/her disabilities? PLEASE ✓ CHECK ONE.

- 1  Very adequate
- 2  Somewhat adequate
- 3  Not very adequate
- 4  Not at all adequate
- 5  Don't know
- 6  No support is needed

**A50.** To the best of your knowledge, what school and grade level do you anticipate this child will be in next year? PLEASE ✓ CHECK ONE.

	Kindergarten	First grade	Other
a. Same school as this year	1 <input type="radio"/>	2 <input type="radio"/>	(Specify: _____)
b. Different school next year	1 <input type="radio"/>	2 <input type="radio"/>	(Specify: _____)
c. Don't know	1 <input type="radio"/>	2 <input type="radio"/>	(Specify: _____)

Please write the name and address of the school (if known) if you expect this child will attend a different school next year.

Name of new school: \_\_\_\_\_

School address: \_\_\_\_\_

**A51.** We want to know what you think about special education for young children.

In the space provided, please print any suggestions or concerns you have regarding the provision of special education services for young children. (Be assured that your answers will be confidential.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## Instructions for Section B of this Questionnaire:

1. Section B of the questionnaire is to be completed **only** for children with IEPs or 504 plans. Does this child have an IEP or 504 plan?
  - YES, this child **DOES** have an IEP or 504 plan. Please continue with next question.
  - NO, this child does **NOT** have an IEP or 504 plan. Please go to page 37 of this questionnaire.
2. Section B is to be completed by the teacher or specialist most familiar with the child's special education and related services. Can you describe this child's special services?
  - YES. Please continue with Section B on the next page.
  - NO. Please remove Section B and give it to the person who you feel could best answer questions about this child's special education or related services. Please provide this person's name and phone number below. When this person completes Section B, please have him or her return it directly to Westat using the self-mailer.

Name: \_\_\_\_\_

Phone: (     ) \_\_\_\_\_



*Thank you for completing  
this questionnaire.*

Date Completed: ___/___/___ mm dd yy	Please provide your name and contact information below, so that we can reach you if we have questions.
Your Name: _____	
School/Program Name: _____	
Address: _____	
Phone: (     ) _____	
Email: _____	

*Please continue to the back cover.*

*Thank you for completing  
this questionnaire.*

Please return this questionnaire  
in the postage-paid envelope to:  
Pre-Elementary Education Longitudinal Study  
Westat  
1650 Research Blvd.  
Rockville, MD 20850



*thank you!*

**IDEAs**  
that **Work**  
U.S. Office of Special  
Education Programs  
**WESTAT**

*"because **all** children should **count**...  
read, learn, grow, and have friends..."*

APPENDIX G  
PEELS ELEMENTARY TEACHER QUESTIONNAIRE

Pre-Elementary Education Longitudinal Study

Elementary School Teacher Questionnaire

CENTRAL ILLINOIS  
school  
ELEMENTARY  
ILLINOIS

friends

PEELS

learn

grow

*"because all children should count...  
read, learn, grow, and have friends..."*

Funded by the US Departments of Education,  
Office of Special Education Programs

# Pre-Elementary Education Longitudinal Study

## Elementary School Teacher Questionnaire

### *Dear Teacher:*

Your school district is participating in an important U.S. Department of Education study called the Pre-Elementary Education Longitudinal Study (PEELS). The child named on the label is one of more than 3,000 children nationwide who are taking part in PEELS.

The study is following the children as they move through preschool, kindergarten, and into the early elementary school years. This questionnaire is the only source of information about this year's school programs and experiences for this child. Because of this, your participation is vitally important.

Please complete this questionnaire and return it in the postage-paid envelope within 3 weeks. Answer all questions to the best of your knowledge and use your best guess when answering questions for which you are not quite sure of the answer. However, try as best you can to avoid responses that represent complete guesses. If necessary, please consult with colleagues in answering questions. Be assured that your answers will be completely confidential, and no information will be reported that identifies you, this child, or this school. We have enclosed \$10 as a token of our appreciation.

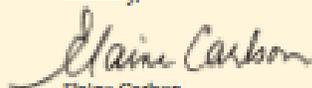
Before beginning this questionnaire, you may want to gather the following information so that you will be able to complete the questionnaire more quickly:

- The school file for the child whose name is on the label, including, if applicable, the most recent Individualized Education Program (IEP);
- Attendance records for this child during October of this school year; and
- Child's previous school records.

If you have any questions about the study or the questionnaire, please feel free to call the PEELS toll-free hot line at 1-888-534-8348, send an email to [questions@peels.org](mailto:questions@peels.org), or visit the PEELS web site at [www.peels.org](http://www.peels.org).

Thank you so much for your contribution to this very important study.

Sincerely,



Elaine Carlson  
Project Director, PEELS

Call the PEELS  
toll-free hot line:  
**1-888-534-8348**

According to the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1820-0636. The time required to complete this information collection is estimated to average 20 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to US Department of Education, Washington, D.C. 20202-4637. If you have comments or concerns regarding the status of your individual submission of this form, write directly to: Office of Special Education Programs, US Department of Education, Switzer Building, Room 4627, 100 C Street, SW, Washington, D.C. 20202-4637.

OMB Control # 1820-0636, Expiration date: 11/30/04



## Who should complete this questionnaire?

This questionnaire should be completed by the teacher or service provider who knows the child whose name appears on the label above and can describe the elementary education or special education and related services for this child.

- Can you tell us about the child whose name appears on the label?

- 1  Yes
- 2  No

- Can you tell us about this child's elementary school program?

- 1  Yes
- 2  No

- Can you tell us about special services this child receives (e.g., speech therapy)?

- 1  Yes
- 2  No

If you answered NO to **ALL** three questions:

**DO NOT COMPLETE THIS QUESTIONNAIRE. PLEASE PASS THE QUESTIONNAIRE ON TO THE PERSON WHO IS BEST ABLE TO DESCRIBE THIS CHILD'S ELEMENTARY EDUCATION PROGRAM OR SPECIAL SERVICES.**

If you answered YES to **ANY** of the three questions:

**PLEASE PROCEED TO SECTION A →**

### *note:*

All references to "this child" mean the child whose name appears on the label. "IEP" refers to an Individualized Education Program for a child with a disability. "Special education setting" and "special education classroom" could be a self-contained day classroom or a resource room.

# Section A:

## ELEMENTARY SCHOOL PROGRAM AND CHILD PROGRESS

REMINDER: "This child" refers to the child whose name appears on the label.

A1. What is the current grade-level placement of this child? PLEASE  CHECK ONE.

- 0  Ungraded
- 1  1st grade
- 2  2nd grade
- 3  3rd grade
- 4  4th grade
- 5  Other (Specify: \_\_\_\_\_)

A2. Approximately how much school time per week does this child currently spend in the following settings? PLEASE INDICATE EITHER MINUTES OR HOURS PER WEEK.

	Number of minutes/week	OR	Number of hours/week
a. Regular education classroom	<input type="text"/>		<input type="text"/>
b. Special education setting	<input type="text"/>		<input type="text"/>
c. Therapy/special service setting (office, small room, etc.)	<input type="text"/>		<input type="text"/>
d. Setting outside of the classroom for other remediation or assistance (e.g., Title I, English as a second language [ESL])	<input type="text"/>		<input type="text"/>
e. Home instruction	<input type="text"/>		<input type="text"/>

A3. Which of the settings below is considered to be this child's main education setting? PLEASE  CHECK ONE.

- 01  Regular education classroom
- 02  Special education setting
- 03  Home
- 04  Other (Specify: \_\_\_\_\_)

A4. In what capacity (or capacities) are you involved with this child?

PLEASE ✓CHECK ALL THAT APPLY.

- 01  a. Provide instruction directly to this child
  - 02  b. Provide related services directly to this child
  - 03  c. Provide consultation to this child's teacher(s)
  - 04  d. Provide case management (e.g., program monitoring) for this child
  - 05  e. Program administrator/supervisor for this child's program
  - 06  f. Supervise instructional assistant assigned to work with this child
  - 07  g. Other (Specify: \_\_\_\_\_)
- 

A5. What is your main role in this school? PLEASE ✓CHECK ONE.

- 1  Regular education classroom teacher
  - 2  Special education teacher
  - 3  Related service provider (Specify: \_\_\_\_\_)
  - 4  Other (Specify: \_\_\_\_\_)
- 

A6. How many years have you been teaching or working in your current professional capacity?

Number of years

---

A7. Approximately how many TOTAL hours per week does this child attend school? (If this child does not attend school [e.g., home schooled], indicate approximately how many total hours of instruction he/she receives in a typical week.)

TOTAL hours per week child attends school or receives instruction

---

- A8.** Please indicate all the settings in which this child currently receives instruction for each subject listed here. (NOTE: Some children may receive instruction in a subject area in multiple settings, such as a special education setting and a general education classroom.) PLEASE ✓CHECK ALL THAT APPLY IN EACH ROW. PLEASE ✓CHECK NOT APPLICABLE IF CHILD DOES NOT RECEIVE INSTRUCTION IN A SUBJECT AREA.

	Regular education classroom	Special education setting	Pull-out program (not special education)	Home-bound instruction	Not applicable
a. Language arts	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
b. Mathematics	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
c. Science	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
d. Social studies	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
e. Art, music	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
f. Physical education	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
g. Self-help skills	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
h. Social skills	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>
i. Other (Specify: _____)	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>

- A9.** Does this child participate in the following? PLEASE ✓CHECK ONE IN EACH ROW.

	Yes	No	Don't know
a. Program for gifted and talented students	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
b. Title I	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
c. Bilingual education or instruction for English language learners (ELL) (e.g., ESL or limited English proficient [LEP])	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
d. Program for children with behavioral or emotional problems	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
e. Free/reduced-price lunch program	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>

**A10.** How many of the following people are usually in the room during the majority of this child's time in your classroom?

PLEASE ENTER ONE NUMBER ON EACH LINE. ENTER "0" IF NONE.

	Number of people
a. Regular education teachers	<input type="text"/>
b. Special education teachers	<input type="text"/>
c. One-to-one assistants or aides assigned to this child	<input type="text"/>
d. One-to-one assistants or aides assigned to any other child in this child's class	<input type="text"/>
e. Teacher aides	<input type="text"/>
f. Other specialists	<input type="text"/>
g. Adult volunteers	<input type="text"/>

**A11.** What are the total numbers of children with IEPs and without IEPs enrolled in this child's main class? PLEASE ENTER ONE NUMBER ON EACH LINE. IF THE CHILD IS ENROLLED IN MORE THAN ONE CLASS, PLEASE RESPOND FOR THE CLASS IN WHICH THE CHILD SPENDS THE MOST TIME.

Number of children with IEPs in child's class

Number of children without IEPs in child's class

} If "0," go to Question A13

**A12.** Among the children without IEPs in this child's main classroom, how many are currently under formal review for special education services?

PLEASE ENTER ONE NUMBER.

Number of children under formal review

**A13.** Has this child missed 2 or more weeks of school this year because of a health problem? PLEASE CHECK ONE.

- 1  Yes  
2  No  
3  Don't know

**A14.** During October of this school year, how many days was this child absent?  
PLEASE ENTER THE NUMBER OF DAYS.

Number of days absent

**A15.** How many of these were unexcused absences?  
PLEASE ENTER THE NUMBER OF DAYS.

Number of unexcused absences

**A16.** Which of the following best describes the curriculum materials for this child?  
PLEASE  CHECK ONE.

- 1  Regular education grade-level curriculum materials are used without modification.
- 2  Some modifications in regular education curriculum materials have been made.
- 3  Substantial modifications in regular curriculum materials have been made.
- 4  Specialized curriculum or materials are used.

**A17.** What percentage of the day does this child spend in the following activities?  
THE PERCENTAGES YOU PROVIDE SHOULD TOTAL 100%. PLEASE EXCLUDE TIME FOR LUNCH AND RECESS IN CALCULATING PERCENTAGES.

a. Instructional or therapy services outside the classroom	<input type="text"/>	%
b. Adult-directed whole class activities	<input type="text"/>	%
c. Adult-directed small group activities	<input type="text"/>	%
d. Adult-directed individual activities	<input type="text"/>	%
e. Child-selected activities	<input type="text"/>	%
f. Other (Specify: _____)	<input type="text"/>	%

100 %

**A18.** Which of the following teaching practices and methods are used with this child on a regular basis? PLEASE ✓ CHECK ONE IN EACH ROW.

	Yes	No	Don't know
a. One-on-one instruction	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
b. Small-group instruction	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
c. Large-group instruction	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
d. Cooperative learning	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
e. Peer tutoring	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
f. Computer-based instruction	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
g. Direct instruction	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
h. Cognitive strategies	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
i. Self-management	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
j. Behavior management	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
k. Not applicable, you do not deliver regular instruction to this child	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>



	Never	Rarely	Sometimes	Often
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>

**A20. Problem Behavior Scale**

PLEASE ✓ CHECK ONE IN EACH ROW.

	Never	Rarely	Sometimes	Often
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>
	0 <input type="radio"/>	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>

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## GROSS AND FINE MOTOR SKILLS

The Vineland Motor Skills checklist is divided into two domains: (1) *gross motor* and (2) *fine motor*. After reading the item, decide whether or not you have actually observed situations in which the child performed the activity. If you have observed the child in the situation, then select a rating from one of the *OBSERVED* performance columns. If you haven't, or if you are unsure, then select a rating from one of the *ESTIMATED* performance columns. Please note that there is no penalty for selecting the *Estimated* performance columns over the *Observed* performance columns.

Select a rating that best describes what you have observed or estimate the child does. Be careful not to make a rating based on what you think the child can or could do if given the opportunity.

Items with multiple activities (e.g., screws and unscrews jar lids; marks with pencil, crayon, or chalk) require special attention. Items with **AND** require that both activities be performed by the child. Items with **OR** require only one of the activities be performed by the child.

Check *USUALLY* if the child satisfactorily and habitually performs the activity.

Check *SOMETIMES OR PARTIALLY* if the activity is in an emergent or transitional state, if the activity is only sometimes performed with complete success, or if only part of the activity is performed with complete success.

Check *NEVER* if the child does not or seldom performs the activity, or if limiting circumstances (e.g., physical limitation or sensory impairment) prevent the performance of the activity.

Please be sure to check one circle in each row. Leaving a row blank will invalidate the child's score.

### A21. Gross Motor

PLEASE ✓ ONE IN EACH ROW.

THIS CHILD...	Observed			Estimated		
	Usually	Sometimes or partially	Never	Usually	Sometimes or partially	Never
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

Vineland Adaptive Behavior Scales Classroom Edition Questionnaire, Motor Skills Domain by Sam Sparrow, David Sells, and Domenic Cicchelli © 1985 American Guidance Service, Inc., 4201 Woodland Road, Circle Pines, MN 55014-1794. Permission to reproduce granted to Westat for research purposes only. All rights reserved. www.westat.com

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## ACADEMIC RATING SCALE

The Academic Rating Scale is separated into two areas: (1) language and literacy and (2) mathematical thinking. You are asked to rate the child's skills, knowledge, and behaviors within each of these areas based on your experience with this child. This is NOT a test and should not be administered directly to the child. Each question includes examples that are meant to help you think of the range of situations in which the child may demonstrate similar skills and behaviors. The examples do not exhaust all the ways that a child may demonstrate what he/she knows or can do.

The following five-point scale is used for each of the questions. It reflects the degree to which a child has acquired/chooses to demonstrate the targeted skills, knowledge, and behaviors.

- |     |   |                |   |
|-----|---|----------------|---|
| 1   | - | Not yet        | Child has <i>not yet</i> demonstrated skill, knowledge, or behavior.  |
| 2   | - | Beginning      | Child is <i>just beginning</i> to demonstrate skill, knowledge, or behavior but does so very inconsistently.                                |
| 3   | - | In progress    | Child demonstrates skill, knowledge, or behavior <i>with some regularity</i> but varies in level of competence.                             |
| 4   | - | Intermediate   | Child demonstrates skill, knowledge, or behavior <i>with increasing regularity and average competence</i> but is not completely proficient. |
| 5   | - | Proficient     | Child demonstrates skill, knowledge, or behavior <i>competently and consistently</i> .  |
| N/A | - | Not applicable | Skill, knowledge, or behavior has <i>not been introduced</i> in classroom setting.  |

Rate only the child's current achievement or motivation. Rate each child compared to other children of the same age level. Please use the full range of ratings. If the skill, knowledge, or behavior has been introduced in the classroom, please rate the child using the numbers 1 through 5. Check "NA" only if the skill, knowledge, or behavior has not been introduced in your classroom setting.

**Children with limited English proficiency:** Please answer the question based on your knowledge of this child's skills. If the child does not yet demonstrate skills in English but does demonstrate them in his/her native language, please answer the questions with the child's native language in mind.

**Children with special needs:** It may be necessary to consider adaptations for some questions to make them more inclusive for this child's skills/use of adaptive equipment. Some children may utilize alternative forms of verbal communication (e.g., sign language, communication boards) or written communication (e.g., word processors, Braille, dictation). Please answer the questions with these adaptations in mind.

### A23. Language and literacy

PLEASE CHECK ONE IN EACH ROW.

THIS CHILD...	Not yet	Beginning	In progress	Inter-mediate	Proficient	Not applicable
a. Contributes relevant information to classroom discussions (e.g., during a class discussion, can express an idea or a personal opinion on a topic and the reasons behind the opinion).	<input type="radio"/>					
b. Understands and interprets a story or other text read to him/her (e.g., by writing a sequel to a story, dramatizing part of a story, or posing a question about why a particular story event occurred as it did).	<input type="radio"/>					
c. Reads words with regular vowel sounds (e.g., reads "cous", "junk", "less", "clump", "halt", or "bias").	<input type="radio"/>					
d. Reads words with irregular vowel sounds (e.g., reads "through", "point", "enough", or "shower").	<input type="radio"/>					
e. Reads first grade books independently with comprehension (e.g., reads most words correctly and answers questions about what was read, makes predictions while reading, and retells story after reading).	<input type="radio"/>					
f. Reads first grade books fluently (e.g., easily reads words in meaningful phrases rather than reading word by word).	<input type="radio"/>					
g. Composes a story with a clear beginning, middle, and end.	<input type="radio"/>					
h. Demonstrates an understanding of some of the conventions of print (e.g., appropriately using question marks, exclamation points, and quotation marks).	<input type="radio"/>					
i. Uses the computer for a variety of purposes (e.g., by writing a page for a class book, looking up information on a topic of interest, solving math problems, or recording a scientific observation).	<input type="radio"/>					

### A24. Mathematical thinking

PLEASE ✓/CHECK ONE IN EACH ROW.

THIS CHILD...	Not yet	Beginning	In progress	Inter-mediate	Proficient	Not applicable
a. Demonstrates an understanding of place value (e.g., explaining that 14 is 10 plus 4, or using two stacks of 10 and 5 single cubes to represent the number 25).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
b. Models, reads, writes, and compares whole numbers (e.g., recognizing that 30 is the same quantity if it is 30 rabbits or 30 stickers or 15 + 15 and does, or describing that the number 25 is smaller than 41).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
c. Counts change with two different types of coins (e.g., two quarters and a nickel, or three dimes and two pennies).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
d. Surveys, collects, and organizes data into simple graphs (e.g., making tally marks to represent the number of children who want to play jump rope at recess, or making a picture, bar, line, or circle graph to show the different kinds of fruit children bring to school and the quantity of each type).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
e. Makes reasonable estimates of quantities (e.g., looking at a group of objects and deciding if it is more than 10, about 50, or less than 100).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
f. Measures to the nearest whole number using common instruments (e.g., rulers, or tape measures, or thermometers, or scales).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>
g. Uses a variety of strategies to solve math problems (e.g., using manipulative materials, using trial and error, making an organized list or table, drawing a diagram, looking for a pattern, acting out a problem, or talking with others).	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	5 <input type="radio"/>	6 <input type="radio"/>

**A25.** Overall, how would you rate this child's academic skills compared to typical children of the same grade level? PLEASE ✓CHECK ONE.

- 1  Far below average
  - 2  Below average
  - 3  Average
  - 4  Above average
  - 5  Far above average
- 

**A26.** How does this child compare with other children in the class in terms of physical activity? PLEASE ✓CHECK ONE.

- 1  A lot less active than most
  - 2  A little less active than most
  - 3  About the same as most
  - 4  A little more active than most
  - 5  A lot more active than most
- 

**A27.** Compared to his/her classmates, how many friends does this child have in your classroom? PLEASE ✓CHECK ONE.

- 1  Far fewer than most
  - 2  Fewer than most
  - 3  As many as most
  - 4  More than most
  - 5  Far more than most
- 

**A28.** Overall, how appropriate do you think this child's placement is in your classroom? PLEASE ✓CHECK ONE.

- 1  Very appropriate
  - 2  Somewhat appropriate
  - 3  Not very appropriate
  - 4  Not at all appropriate
  - 5  Don't know
-

**A29.** Which of the following methods do you commonly use to assess how well this child is doing in your class? PLEASE ✓ CHECK ALL THAT APPLY.

- 01  a. Impressions based on experience with child and written notes about specific events
- 02  b. Direct observation with general anecdotal notes
- 03  c. Direct observation with checklist of skills
- 04  d. Direct assessment or testing
- 05  e. Test developed to accompany published curriculum
- 06  f. Teacher-developed tests
- 07  g. Video/audio recording
- 08  h. Portfolios of children's work samples
- 09  i. Other (Specify: \_\_\_\_\_)
- 10  j. Child progress is not formally monitored

**A30.** During the current school year, to what extent will this child participate in any mandated standardized test(s) administered as part of a school-, district-, or statewide testing program? PLEASE ✓ CHECK ONE.

- 0  There is no such testing at this grade level.
  - 1  Child did not take such tests or is not expected to take them.
  - 2  Child participated in some of the testing program without accommodations or modifications or is expected to do so.
  - 3  Child participated in most or all of the testing program without accommodations or modifications or is expected to do so.
  - 4  Child participated in some of the testing program with accommodations or modifications or is expected to do so.
  - 5  Child participated in most or all of the testing program with accommodations or modifications or is expected to do so.
- } Go to Question A33
- } Continue with Question A31

**A31.** Which of the following accommodations/modifications were provided to this child to participate in mandated standardized tests? PLEASE ✓ CHECK ALL THAT APPLY.

- 01  a. Given test orally
- 02  b. Reader provided
- 03  c. Dictated responses
- 04  d. Shortened test
- 05  e. Alternative setting
- 06  f. Additional time
- 07  g. Alternative format for responding (e.g., pointing, typing, etc.)
- 08  h. Braille/large-print version of test
- 09  i. Other (Specify: \_\_\_\_\_)

A32. For what type(s) of test were the above accommodations provided?

PLEASE ✓ CHECK ALL THAT APPLY.

- 1  a. Math assessments  
2  b. Reading/language assessments  
3  c. Other (Specify: \_\_\_\_\_)

A33. What grade level in reading and mathematics has this child achieved as of the most recent assessment(s)? PLEASE ✓ CHECK ONE FOR READING AND ONE FOR MATH.

	Grade level in:	
	Reading	Mathematics
No grade level determined	95 <input type="radio"/>	95 <input type="radio"/>
Preschool/Kindergarten	00 <input type="radio"/>	00 <input type="radio"/>
Grade 1	01 <input type="radio"/>	01 <input type="radio"/>
Grade 2	02 <input type="radio"/>	02 <input type="radio"/>
Grade 3	03 <input type="radio"/>	03 <input type="radio"/>
Grade 4	04 <input type="radio"/>	04 <input type="radio"/>
Grade 5	05 <input type="radio"/>	05 <input type="radio"/>
Grade 6 or above	06 <input type="radio"/>	06 <input type="radio"/>

A34. Date of most recent reading assessment:

Month/year

A35. Date of most recent math assessment:

Month/year

**A36.** How do you communicate with the parents or guardians of this child?  
PLEASE ✓CHECK ALL THAT APPLY.

- 01  a. I give parents regular written progress reports.
- 02  b. I regularly give parents report cards for this child.
- 03  c. I call them on the phone, send email, or send notes home.
- 04  d. I speak with parents before or after school when this child is being dropped off or picked up.
- 05  e. We have regularly scheduled parent-teacher meetings.
- 06  f. We share a daily or weekly journal for this child.
- 07  g. There is a regular system for communicating with parents (e.g., newsletter or phone tree).
- 08  h. Parents have access to the school's web site with information specifically for parents.

**A37.** During this school year, approximately how often have you and this child's parents or guardians communicated (by phone, in person, or in writing) about his/her progress, excluding routine progress reports or report cards? PLEASE ✓CHECK ONE.

- 1  At least once a week
- 2  A few times a month
- 3  About once a month
- 4  Less than once a month
- 0  Never

**A38.** How involved are this child's parents or guardians in his/her school experiences (e.g., monitoring homework or child's progress in school)? PLEASE ✓CHECK ONE.

- 1  Not at all involved
- 2  Not very involved
- 3  Fairly involved
- 4  Very involved
- 8  Don't know

**A39.** During this school year, did this child's parents or guardians attend a parent-teacher conference or "back-to-school night"? PLEASE ✓CHECK ONE.

- 1  Yes
- 2  No
- 3  Not applicable; we do not have parent conferences or "back-to-school night"
- 8  Don't know

**A40.** To what extent were you involved in planning this child's transition into your class?

PLEASE ✓CHECK ONE.

- 1  Not at all
- 2  Somewhat
- 3  Extensively
- 0  Not applicable—transition planning not done

**A41.** How easy was it for this child to make the transition into your class or program?

PLEASE ✓CHECK ONE.

- 1  Very easy
- 2  Somewhat easy
- 3  Somewhat difficult
- 4  Very difficult

**A42.** Did this child have an IEP during the year prior to this school year?

PLEASE ✓CHECK ONE.

- 1  Yes → Continue with Question A43
- 2  No
- 8  Don't know } Go to Question A44

**A43.** To what extent did you communicate with the person(s) who provided special education for this child last year? PLEASE ✓CHECK ONE.

- 0  Not at all
- 1  Somewhat
- 2  Extensively
- 3  I provided special education services

**A44.** Does this child currently have either an IEP or a 504 plan for children with disabilities? PLEASE ✓CHECK ONE.

- 1  Yes, this child has an IEP for special education services. } Continue with Question A45
- 2  Yes, this child has a 504 plan. → Go to Question A46
- 3  No, this child does not have an IEP or 504 plan. → Go to Question A50
- 8  Don't know. → Go to Question A46

**A45.** How are this child's IEP goals and objectives primarily addressed in the regular education classroom? PLEASE ✓CHECK THE ONE THAT BEST DESCRIBES HOW GOALS AND OBJECTIVES ARE PRIMARILY ADDRESSED.

- 01  Not applicable—the child is not in a regular education classroom.
- 02  Not applicable—the child's IEP goals are not addressed in the regular education classroom; they are addressed elsewhere.
- 03  The special education teacher or aide works individually with the child on special tasks.
- 04  The regular education teacher or aide works individually with the child on special tasks.
- 05  Related services personnel work individually with the child on special tasks.
- 06  Related services personnel work with the child in group activities.
- 07  The goals and objectives are embedded in common classroom activities.

**A46.** Overall, how adequate are the supports that are provided to this child because of his/her disabilities? PLEASE ✓CHECK ONE.

- 1  Very adequate
- 2  Somewhat adequate
- 3  Not very adequate
- 4  Not adequate at all
- 8  Don't know
- 0  No support is needed

**A47.** Overall, how adequate are the supports and resources that are provided to you for this child because of his/her disabilities? PLEASE ✓CHECK ONE.

- 1  Very adequate
- 2  Somewhat adequate
- 3  Not very adequate
- 4  Not adequate at all
- 8  Don't know
- 0  No support is needed

**A48.** Does your program support social interaction between this child and children without disabilities? PLEASE ✓CHECK ONE.

- 1  Yes → Continue with Question A49
  - 2  Not applicable—we do not currently have children without disabilities enrolled in this class or program.
  - 3  Not applicable—this child does not have contact with children without disabilities during our program.
  - 4  Not applicable—no support is needed.
  - 5  No
- } Go to Question A50

**A49.** Does your program use any of the following methods to support social interaction between this child and children without disabilities? PLEASE ✓CHECK ONE IN EACH ROW.

	Yes	No
a. We present a specific disability awareness program during group times.	1 <input type="radio"/>	2 <input type="radio"/>
b. We assign children without disabilities to be "helpers" or "buddies" to this child.	1 <input type="radio"/>	2 <input type="radio"/>
c. We prompt and reinforce this child for initiating and maintaining interactions with children without disabilities.	1 <input type="radio"/>	2 <input type="radio"/>
d. We prompt and reinforce the children without disabilities for initiating and maintaining interactions with this child.	1 <input type="radio"/>	2 <input type="radio"/>
e. We structure play and task situations so that they require interaction between this child and children without disabilities.	1 <input type="radio"/>	2 <input type="radio"/>
f. Other (Specify: _____)	1 <input type="radio"/>	2 <input type="radio"/>

**A50.** To the best of your knowledge, what school and grade level do you anticipate this child will be in next year? PLEASE ✓CHECK ONE.

	1st grade	2nd grade	3rd grade	4th grade	Other
a. Same school as this year	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	(Specify: _____)
b. Different school next year	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	(Specify: _____)
c. Don't know	1 <input type="radio"/>	2 <input type="radio"/>	3 <input type="radio"/>	4 <input type="radio"/>	(Specify: _____)

Please write the name and address of the school (if known) if you expect this child will attend a different school next year.

Name of new school: \_\_\_\_\_  
 School address: \_\_\_\_\_  
 \_\_\_\_\_

**A51.** We want to know what you think about special education for young children. In the space provided, please print any suggestions or concerns you have regarding the provision of special education services for young children. (Be assured that your answers will be confidential.)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Instructions for Section B of this Questionnaire:

1. Section B of the questionnaire is to be completed only for children with IEPs or 504 plans. Does this child have an IEP or 504 plan?
  - YES, this child DOES have an IEP or 504 plan. Please continue with next question.
  - NO, this child does NOT have an IEP or 504 plan. Please go to page 33 of this questionnaire.
2. Section B is to be completed by the teacher or specialist most familiar with the child's special education and related services. Can you describe this child's special services?
  - YES. Please continue with Section B on the next page.
  - NO. Please remove Section B and give it to the person who you feel could best answer questions about this child's special education or related services. Please provide this person's name and phone number below. When this person completes Section B, please have him or her return it directly to Westat using the self-mailer.

Name: \_\_\_\_\_

Phone: (      ) \_\_\_\_\_

*Thank you for completing  
this questionnaire.*

Date Completed: \_\_\_/\_\_\_/\_\_\_  
mm dd yy

Please provide your name and contact information below,  
so that we can reach you if we have questions.

Your Name: \_\_\_\_\_

School/Program Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: (       ) \_\_\_\_\_

Email: \_\_\_\_\_

*Please continue to the back cover.*

*Thank you for completing  
this questionnaire.*

Please return this questionnaire  
in the postage-paid envelope to:  
Pre-Elementary Education Longitudinal Study  
Westat  
1650 Research Blvd.  
Rockville, MD 20850



*thank you!*

IDEAs  
that Work

U.S. Office of Special  
Education Programs

WESTAT

14041 0004 0004 0004

*"because all children should count...  
read, learn, grow, and have friends..."*

APPENDIX H  
PEELS COMPUTER ASSISTED TELEPHONE INTERVIEW PARENT  
QUESTIONNAIRE (SECTIONS RELEVANT TO THE CURRENT STUDY)

PEELS Section A 8-26-03

A3. What is {CHILD}'s birth date?  
CDOBMM/CDOBDD/CDOBY

\_\_\_/\_\_\_/\_\_\_  
MM DD YYYY

[H: 1-12 (CDOBMM), 1-31 (CDOBDD), 1996-2002 (CDOBY)]  
[DATE MUST BE ≥ ST\_BIRTH AND ≤ TODAY'S DATE]

- |                |              |
|----------------|--------------|
| 1. JANUARY     | 7. JULY      |
| 2. FEBRUARY    | 8. AUGUST    |
| 3. MARCH       | 9. SEPTEMBER |
| 4. APRIL       | 10. OCTOBER  |
| 5. MAY         | 11. NOVEMBER |
| 6. JUNE        | 12. DECEMBER |
| -7. REFUSE     |              |
| -8. DON'T KNOW |              |

**BOX A3**

IF A3 = -7 OR -8, GO TO A4. ELSE, GO TO BOX A5.

A4. Who would be able to provide that information?  
ROSTERR

\_\_\_\_\_  
(FIRST NAME)

\_\_\_\_\_  
(LAST NAME)

**BOX A4**

IF A4 = -7 OR -8, GO TO THANK1 THEN TO REFNIRF. ELSE, GO TO THANK1, STAMP STANDARD MESSAGE ON PROBNIRF - "NEW RESPONDENT NEEDED. NAME COLLECTED, RESTART INTERVIEW." AUTOCODE 82.

**BOX A5**

CALCULATE CURAGE = CHILD'S AGE AS OF INTERVIEW DATE.  
IF ST\_BIRTH OR A3 < 3-1-1998 OR > 2-28-2001, GO TO A5. ELSE, GO TO A7.

**VARIABLE NOTE:**

If birth month is current month, display "turns {CURAGE} this month". Else, display "is {CURAGE}".

A5. That would mean that {CHILD} {turns {CURAGE} this month/is {CURAGE}}. Is that correct?  
AGECONF

( )

- |                      |            |
|----------------------|------------|
| 1. YES .....         | (Go to A6) |
| 2. NO .....          | (Go to A3) |
| -7. REFUSED .....    | (Go to A4) |
| -8. DON'T KNOW ..... | (Go to A4) |

PEELS Section A 8-26-03

A6. Let me confirm that I'm talking about {CHILD} {CHILDLN}.  
CURAGERR

( )

- 1. YES, TALKING ABOUT SAMPLED CHILD
- 2. NO, NOT TALKING ABOUT SAMPLED CHILD
- 7. REFUSED
- 8. DON'T KNOW

**BOX A6**

IF A6 =1, GO TO THANK1, STAMP STANDARD MESSAGE ON PROBNI RF – "Ineligible CHILD due to age". AUTOCODE 82. IF A6=2, GO TO A3. ELSE, GO TO A4.

A7. Is {CHILD} of Hispanic, Latino, or other Spanish origin?  
CHDETHN

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

A8. I'm going to read a list of categories. Please choose one or more categories that best describe {CHILD}'s race. Is (he/she)....

[NOTE: IF R SAYS MIXED RACE OR BI- OR MULTIRACIAL, ASK WHICH RACES THE CHILD REPRESENTS AND CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( )

- CHRACEWH1. White,
- CHRACEBL 2. African American or Black,
- CHRACEAI 3. American Indian or Alaska Native,
- CHRACEAS 4. Asian, or
- CHRACEPI 5. Native Hawaiian or other Pacific Islander.
- 7. REFUSED
- 8. DON'T KNOW

A9. Is any language other than English regularly spoken in {CHILD}'s home?  
CHDLANG

( )

- 1. YES.....(Go to A10)
- 2. NO.....(Go to A11)
- 7. REFUSED.....(Go to A10)
- 8. DON'T KNOW.....(Go to A10)

PEELS Section A 8-26-03

A10. What is the main language {CHILD} usually uses at home?

MAINLANG

( )

- 1 ENGLISH
- 2 SPANISH
- 3 ALBANIAN
- 4 ARABIC
- 5 BULGARIAN
- 6 CAMBODIAN
- 7 CHINESE
- 8 CREOLE
- 9 CROATIAN
- 10 CZECHOSLOVAKIAN
- 11 DUTCH
- 12 FARSI
- 13 FINNISH
- 14 FRENCH
- 15 GERMAN
- 16 GREEK
- 17 HEBREW
- 18 HMONG
- 19 HUNGARIAN
- 20 ITALIAN
- 21 JAPANESE
- 22 KOREAN
- 23 LAOTIAN
- 24 PERSIAN
- 25 POLISH
- 26 PORTUGUESE
- 27 PUNJABI
- 28 ROMANIAN
- 29 RUSSIAN
- 30 SAMOAN
- 31 SWAHILI
- 32 TAGALOG (FILIPINO LANGUAGE)
- 33 THAI
- 34 TURKISH
- 35 URDU
- 36 VIETNAMESE
- 37 SIGN LANGUAGE/MANUAL COMMUNICATION/ASL
- 38 CHILD DOES NOT SPEAK A LANGUAGE
- 91 OTHER.....(GO TO MNLANGOS)
- 8 DON'T KNOW
- 7 REFUSED

MNLANGOS (SPECIFY): \_\_\_\_\_



A11. Does {CHILD} live with you now? [NOTE: IN CASES OF JOINT CUSTODY, CHILD IS CONSIDERED LIVING WITH A PARENT IF CHILD NORMALLY SPENDS AT LEAST 4 NIGHTS A WEEK WITH THE PARENT.] [IF NEEDED: IF PARENT ANSWERS DON'T KNOW OR REFUSED: It is very important that we have this information in order to ask the remainder of our questions correctly. Does {CHILD} live with you now?]  
CHDLVNOW

( )

- 1. YES.....(Go to A15)
- 2. NO .....(Go to A12)
- 7. REFUSED.....(Go to A21)
- 8. DON'T KNOW.....(Go to A21)

PEELS Section A 8-26-03

A12. Where does {he/she} live now? DO NOT READ CATEGORIES.

CHDLVWHR

( )

- 1. WITH BOTH BIOLOGICAL PARENTS
- 2. WITH BIOLOGICAL MOTHER
- 3. WITH BIOLOGICAL FATHER
- 4. IN FOSTER CARE
- 5. WITH ADOPTIVE PARENT(S)
- 6. WITH ANOTHER RELATIVE
- 7. IN A HOSPITAL
- 8. IN A SPECIAL SCHOOL OR HOME FOR CHILDREN WITH SPECIAL NEEDS
- 9. CHILD IS DECEASED
- 91. OTHER SPECIFY.....(GO TO CHDLVWOV)
- 7. REFUSED
- 8. DON'T KNOW

CHDLVWOV (SPECIFY): \_\_\_\_\_

[IF CHILD IS DECEASED, INTERVIEWER WILL READ CONDOLENCE SCRIPT AND END INTERVIEW.]

Box A13

IF A12=7 OR 8 ( IN HOSPITAL OR SPECIAL SCHOOL), GO TO A13.  
ELSE, IF A12 = -7 OR -8, GO TO A21.  
ELSE, GO TO A15.

VARIABLE NOTE:

If A12=7, display " in the hospital".  
If A12=8, display "at the special school".

A13. Does {CHILD} live with you when {he/she} is not {in the hospital/at the special school}?

CHDLVRSP

( )

- 1. YES.....(Go to A15)
- 2. NO .....(Go to A14)
- 7. REFUSED.....(Go to A15)
- 8. DON'T KNOW.....(Go to A15)

A14. Where does {he/she} live when {he/she} is not {in the hospital/at the special school}? DO NOT READ CATEGORIES.

CHDLVOTH

( )

- 1. WITH BOTH BIOLOGICAL PARENTS
- 2. WITH BIOLOGICAL MOTHER
- 3. WITH BIOLOGICAL FATHER
- 4. IN FOSTER CARE
- 5. WITH ADOPTIVE PARENT(S)
- 6. WITH ANOTHER RELATIVE
- 7. IN A HOSPITAL
- 8. IN A SPECIAL SCHOOL OR HOME FOR CHILDREN WITH SPECIAL NEEDS
- 9. CHILD IS DECEASED
- 91. OTHER.....(GO TO CHDLVOTV)
- 7. REFUSED

PEELS Section A 8-26-03

-8. DON'T KNOW

CHDLVOTV (SPECIFY): \_\_\_\_\_

[IF CHILD IS DECEASED, INTERVIEWER WILL READ CONDOLENCE SCRIPT AND END INTERVIEW.]

**VARIABLE NOTE:**  
If A11 = 2 (CHILD DOES NOT LIVE WITH R), display "there". Else, display "with you".  
  
If A12=7, display " when not in the hospital".  
If A12=8, display "when not at the special school".

A15. Has {CHILD} always lived {there/with you} {when not {in the hospital/at the special school}}?  
CHDLVALL

( )

- 1. YES..... (Go to A21)
- 2. NO ..... (Go to A16)
- 7. REFUSED..... (Go to A16)
- 8. DON'T KNOW..... (Go to A16)

**Box A16**

IF TMSPNUM = -7 OR -8, SKIP TMSPUNT.  
ELSE, GO TO TMSPUNT.

**PROGRAMMER'S NOTE:**  
-7 and -8 are not valid response options for TMSPUNT.

**VARIABLE NOTE:**  
If A11 = 2 (CHILD DOES NOT LIVE WITH R), display "there". Else, display "with you".  
  
If A12=7, display " when not in the hospital".  
If A12=8, display "when not at the special school".

PEELS Section A 8-26-03

A16. How long has {CHILD} lived {there/with you} {when not {in the hospital/at the special school}}? [NOTE: ENTER ZERO FOR NONE OF THE TIME.]

TMSPNUM

( )  
NUMBER

TMSPUNT

( )  
UNIT

- 1. DAYS [H: 1-1,095]
- 2. WEEKS [H: 1-260]
- 3. MONTHS [H: 1-60]
- 4. YEARS [H: 1-5]
- 7. REFUSED
- 8. DON'T KNOW

**VARIABLE NOTE:**  
 If A16 ≠ 0, display "else". Else, do not show display.

A17. Where {else} has {he/she} lived? [CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

- CHLVOTPT 1. WITH [HIS/HER] OTHER PARENT
- CHLVPARN 2. WITH [HIS/HER] PARENTS
- CHLVOTRL 3. WITH ANOTHER RELATIVE/ADULT FAMILY MEMBER OTHER THAN SPOUSE OR PARENT
- CHLVFOST 4. IN FOSTER CARE
- CHLVOTFS 5. IN ANOTHER FOSTER CARE SETTING
- CHLV RES 6. IN A RESIDENTIAL OR BOARDING SCHOOL OTHER THAN A COLLEGE
- CHLVHOS 7. IN A HOSPITAL, MEDICAL FACILITY, CONVALESCENT HOSPITAL, OR INSTITUTION FOR PERSONS WITH DISABILITIES
- CHLV MEN 8. IN A MENTAL HEALTH FACILITY
- CHLVOTH 91. OTHER.....(GO TO CHLVOS)
- 7. REFUSED
- 8. DON'T KNOW

CHLVOS (SPECIFY): \_\_\_\_\_

**Box A18**  
 IF A17=6, 7, OR 8, GO TO A18. ELSE, GO TO A21.

A18. Is {CHILD} currently living there? [NOTE: IF CHILD HAS LIVED IN SEVERAL FACILITIES, THEN PROBE FOR THE PLACE LIVED IN MOST RECENTLY.]

FLCURSTY

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

**Box A19**

PEELS Section A 8-26-03

IF STAYNUM = -7 OR -8, SKIP STAYUNT.  
ELSE, GO TO STAYUNT.

PROGRAMMER'S NOTE:  
-7 and -8 are not valid response  
options for STAYUNT.

VARIABLE NOTE:  
If A18=2 (not currently in facility),  
display "did {CHILD} live".  
Else, display "has {CHILD} lived".

A19. How long {{has/did} {CHILD} {lived/live}} there? [NOTE: IF CHILD HAS LIVED IN SEVERAL FACILITIES THEN ENTER ANSWER FOR THE PLACE LIVED IN MOST RECENTLY.]

STAYNUM

( )  
NUMBER

STAYUNT

( )  
UNIT

1. DAYS [H: 1-1,095]
2. WEEKS [H: 1-260]
3. MONTHS [H: 1-60]
4. YEARS [H: 1-5]
- 7. REFUSED
- 8. DON'T KNOW



Box A20  
IF A18=2 (NOT CURRENTLY LIVING THERE), GO TO A21. ELSE, GO TO A20.

A20. How long do you think {he/she} will be living there? Would you say...  
TIMEFAC

( )

1. A few weeks,
2. A few months,
3. About a year, or
4. Longer than a year?
- 7. REFUSED
- 8. DON'T KNOW



A21. Now I'd like to ask about {CHILD}'s education. Does {CHILD} attend any type of instructional program, including preschool, or receive services such as speech, occupational, or physical therapy?

CHATTSCH

( )

1. YES ..... (Go to A22)
2. NO ..... (Go to Box A22)
- 7. REFUSED ..... (Go to A22)
- 8. DON'T KNOW ..... (Go to A22)



PEELS Section A 8-26-03

A22. What is {CHILD}'s current grade level?  
IF NEEDED: The current year means the 2003-2004 school year.

CHCURGRD

( )

1. NOT IN SCHOOL
2. PRESCHOOL
3. KINDERGARTEN
4. FIRST GRADE
5. SECOND GRADE
6. THIRD GRADE
7. UNGRADED
- 7. REFUSED
- 8. DON'T KNOW

**Box A22**

IF A22 = -1 THEN SET A22 = 1 (NOT IN SCHOOL). SET Q2GLEVE=A22.

**Box A23**

IF A21=2 OR A22=1, 2, 7, -7, OR -8, GO TO A23. ELSE, GO TO SECTION B.

A23. Does {CHILD} currently...  
[IF R ANSWERS YES TO MORE THAN ONE TYPE OF PROGRAM, VERIFY  
THAT CHILD IS CURRENTLY ATTENDING MORE THAN ONE PROGRAM.  
IF NOT, PROBE FOR THE ONE PROGRAM TYPE.]

[ 1= YES, 2 = NO, -7 = REFUSED, -8 = DON'T KNOW]

- CHATTPP 1. Attend a preschool program in an elementary school? \_\_\_\_\_  
[IF NEEDED: An elementary school includes grades 1, 2, 3 or 4.]
- CHATTECC 2. Attend an early childhood or preschool center, or nursery school? \_\_\_\_\_  
[IF NEEDED: May include Kindergarten.]
- CHATTCCC 3. Attend a child care center? \_\_\_\_\_
- CHATTHBS 4. Receive home-based services? \_\_\_\_\_
- CHATTOTH 5. Attend another program? \_\_\_\_\_ (GO TO CHCURAOV)
- CHCURAOV 91. (SPECIFY): \_\_\_\_\_

**B. HEALTH/DISABILITY**

VARIABLE NOTE:  
CHILD= (Child's first name)  
If A1=1 display "his", "he" or "him."  
If A1=2 display "hers", "she" or "her."

B1a. Now I'd like to ask you about {CHILD}'s health. Was {CHILD} born 3 or more weeks before (he/she) was due?  
[NOTE: WE MEAN 37 WEEKS OF PREGNANCY OR LESS.]

- ( )
- 1. YES ..... (Go to B1b)
  - 2. NO ..... (Go to B2)
  - 7. REFUSED ..... (Go to B2)
  - 8. DON'T KNOW ..... (Go to B2)

B1b. How many weeks early was (he/she)? [NOTE: R MUST ANSWER IN "WEEKS EARLY," NOT TOTAL WEEKS OF PREGNANCY.]  
ERLYNUM

- ( )  
WEEKS [S: 3-10] [H: 3-20]
- 7. REFUSED
  - 8. DON'T KNOW

B2. Exactly how much did {CHILD} weigh at birth? [NOTE: IF UNIT GIVEN IN GRAMS OR KILOGRAMS, RECORD IN COMMENTS.]  
BRTHPNDS

- ( )  
POUNDS [S: 1-12] [H: 1-20]
- ( )  
OUNCES [H: 0-15]
- 7. REFUSED
  - 8. DON'T KNOW

PEELS Section B 9-17-03

B3a. As a newborn, did {CHILD} stay in the hospital after {he/she} was born because of medical problems?

( )

- 1. YES ..... (GO TO B3b)
- 2. NO ..... (GO TO B4)
- 7. REFUSED ..... (GO TO B4)
- 8. DON'T KNOW ..... (GO TO B4)

B3b. How many nights did {CHILD} stay in the hospital when {he/she} was born? [NOTE: PROBE FOR WHOLE NUMBERS. IF NECESSARY, ROUND TO THE SMALLEST UNIT POSSIBLE.]

( )

NIGHTS [S: 1-120] [H: 1-730]

- 7. REFUSED
- 8. DON'T KNOW

B3c. Was {he/she} in intensive care during that time?

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

B4. Does {CHILD} have a developmental delay or disability? For example, a delay in learning to talk or a problem understanding things.

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

VARIABLE NOTE:

If B4=1, display "What is {his/her} developmental delay or disability?"  
If B4=2, -7, or -8, display "Why does {CHILD} need special education services?"



PEELS Section B 9-17-03

**Box B5A**

IF MORE THAN ONE DISABILITY CODED IN B5, THEN GO TO B5A. IF B5 = ONLY ONE DISABILITY, AUTOCODE THAT DISABILITY IN B5A AND GO TO B7.

B5A. Which of those disabilities that you told me about is {CHILD}'s main delay or disability?

**BMAINDB**

( )

1	{RESPONSE01 FROM B5}	9	{RESPONSE09 FROM B5}
2	{RESPONSE02 FROM B5}	10	{RESPONSE10 FROM B5}
3	{RESPONSE03 FROM B5}	11	{RESPONSE11 FROM B5}
4	{RESPONSE04 FROM B5}	12	{RESPONSE12 FROM B5}
5	{RESPONSE05 FROM B5}	13	{RESPONSE13 FROM B5}
6	{RESPONSE06 FROM B5}	14	{RESPONSE14 FROM B5}
7	{RESPONSE07 FROM B5}	15	{RESPONSE15 FROM B5}
8	{RESPONSE08 FROM B5}	16	{RESPONSE16 FROM B5}

**PROGRAMMER'S NOTE:**

-7 and -8 are not valid response options for CNRNUM.

B7. About how old was {CHILD} when someone first expressed concern about {his/her} health, development, or conditions you indicated? [NOTE: THIS ITEM DOES NOT REFER TO NORMAL HEALTH CONCERNS ("SHE HAD THE FLU WHEN SHE WAS TWO"); IT REFERS TO THE CONDITIONS LISTED EARLIER. THE CONCERNS MAY BE IDENTIFIED BY THE R, A PROFESSIONAL, OR ANYONE ELSE.]

**AGECNCRN**

( )

1. PRIOR TO BIRTH/DURING PREGNANCY..... (GO TO B8a)
2. AT BIRTH ..... (GO TO B8a)
3. LESS THAN ONE MONTH..... (GO TO B8a)
4. MONTHS ..... (GO TO B7ov)
5. YEARS ..... (GO TO B7ov)
- 7. REFUSED..... (GO TO B8a)
- 8. DON'T KNOW..... (GO TO B8a)

**B7OV**

**CNRNUM**

\_\_\_\_\_ [H: MUST BE ≤ CURAGE]

NUMBER

PEELS Section B 9-17-03

**PROGRAMMER'S NOTE:**  
-7 and -8 are not valid response options for BPRFNUM.

B8a. About how old was {he/she} when {he/she} first started regularly getting special education or therapy services from a professional for a delay or disability? [NOTE: IF PARENT ASKS "FOR WHICH DISABILITY," PARENT SHOULD ANSWER FOR THE EARLIEST SERVICE RECEIVED.]

BPRFAGE

( )

1. UNDER 1 YEAR ..... (GO TO B8b)
2. MONTHS ..... (GO TO B8aov)
3. YEARS ..... (GO TO B8aov)
4. SERVICES HAVEN'T STARTED YET ..... (GO TO B8a1)
5. HAS NEVER RECEIVED SPECIAL SERVICES FROM A PROFESSIONAL.....(GO TO BINTRO)
- 7. REFUSED ..... (GO TO B8b)
- 8. DON'T KNOW ..... (GO TO B8b)

B8aOV  
BPRFNUM

\_\_\_\_\_ [H: MUST BE ≤ CURAGE] (GO TO BOX B8b)  
NUMBER



B8a1. When do you expect {CHILD} to start receiving special services?  
BEXPSRV

( )

1. DAYS
2. WEEKS
3. MONTHS



B8a2. We would like to schedule a callback to continue the interview for sometime after {CHILD} has started receiving services.

[PRESS ENTER TO CONTINUE.] (GO TO CALLBACK SCREEN)



**Box B8b**

CALCULATE AGE STARTED RECEIVING SERVICES IN MONTHS IN B8a AND STORE IN BPRFMNTH.  
IF BPRFNUM IS ≥ 3 YEARS OR 36 MONTHS, GO TO B10.  
ELSE, GO TO B8b.

PEELS Section B 9-17-03

B8b. Did {CHILD} have an IFSP (Individual Family Service Plan) for the services {he/she} received before the age of three?

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

B9a. Sometimes there is a gap between when services are provided to children under three years of age and when preschool special education services begin. Was there a gap in services for {CHILD} when {he/she} started preschool special education?

GAPSVCS

( )

- 1. YES ..... (GO TO B9b)
- 2. NO ..... (GO TO B10)
- 7. REFUSED ..... (GO TO B10)
- 8. DON'T KNOW ..... (GO TO B10)

PROGRAMMER'S NOTE:  
-7 and -8 are not valid response options for BRKNUM.

B9b. How long was the break in services?

BRKSRVC

( )

- 1. LESS THAN 1 MONTH/SERVICE HAS BEEN CONTINUOUS ..... (GO TO B9c)
- 2. MONTHS ..... (GO TO B9bov)
- 3. YEARS ..... (GO TO B9bov)
- 7. REFUSED ..... (GO TO B9c)
- 8. DON'T KNOW ..... (GO TO B9c)

B9bov

BRKNUM

\_\_\_\_\_ [H: MUST BE ≤ CURAGE]

NUMBER

PEELS Section B 9-17-03

B9c. I'd like you to think back to the time when {CHILD} moved from the program serving children under 3 to {his/her} preschool program. To what extent did you understand the procedures related to this transition? Would you say...

**BUNDERS**

( )

1. Not at all,
2. To a small extent,
3. To a moderate extent, or
4. To a great extent.
- 7. REFUSED
- 8. DON'T KNOW

B9d. When {CHILD} moved into the preschool program, would you say {he/she} received more services, less services, or about the same amount of services that {he/she} received in the program for children under 3?

**BAMTSVC**

1. MORE
2. LESS
3. SAME
- 7. REFUSED
- 8. DON'T KNOW

B10. Now I would like to ask you about the process of getting preschool special education services for {CHILD}. Who first referred {CHILD} for preschool special education services? [NOTE: READ OPTIONS ONLY IF PARENT CAN'T REMEMBER.]

**WHOREFR**

( )

1. EARLY INTERVENTION PROGRAM
2. CHILD FIND
3. PARENT
4. PHYSICIAN
5. HEAD START
6. PRESCHOOL STAFF
7. HEALTH DEPT.
8. OTHER FAMILY MEMBER/FRIEND
9. CHILD CARE PROGRAM

**WHORFROS** 91. OTHER (SPECIFY): \_\_\_\_\_

- 7. REFUSED
- 8. DON'T KNOW

**Box B10**

IF BPRFMNTH IS MISSING AND CURAGE  $\geq$  3, GO TO B11a.  
ELSE, IF BPRFMNTH IS  $\geq$  48 MONTHS OR CURAGE  $<$  3, GO TO B12.  
ELSE, GO TO B11a.

PEELS Section B 9-17-03

B11a. Did (CHILD) receive preschool special education or related services between the ages of 3 and 4?  
SVCTHRFR

( )

1. YES
2. NO
- 7. REFUSED
- 8. DON'T KNOW

Box B11b

IF BPRFMNTH IS MISSING AND CURAGE  $\geq$  4, GO TO B11b.  
ELSE, IF BPRFMNTH IS  $\geq$  60 MONTHS OR CURAGE  $<$  4, GO TO B12.  
ELSE, GO TO B11b.

B11b. Did (CHILD) receive preschool special education or related services between the ages of 4 and 5?  
SVCFORFV

( )

1. YES
2. NO
- 7. REFUSED
- 8. DON'T KNOW

B12. This next question asks about the effort it took to find out where to get preschool special education services started through the school system. This effort might have included asking people about what could be done for (CHILD), asking about testing, or calling places to try to get information about services. Would you say it took...  
EFTRPRSC

( )

1. A lot of effort to find out where to go,
2. Some effort,
3. Little effort, or
4. No effort at all?
- 7. REFUSED
- 8. DON'T KNOW

Box B13

IF AGPSLNUM = -7 OR -8, SKIP AGPSLUNT.  
ELSE, GO TO AGPSLUNT.

PROGRAMMER'S NOTE:  
-7 and -8 are not valid response  
options for AGPSLUNT.

PEELS Section B 9-17-03

B13. About how old was {CHILD} when your family first tried to get preschool special education services for {him/her}?

AGPSLNUM

( )  
NUMBER

AGPSLUNT

( )  
UNIT

1. MONTHS [H: MUST BE ≤ CURAGE]
2. YEARS [H: MUST BE ≤ CURAGE]
- 7. REFUSED
- 8. DON'T KNOW



Box B14

IF SVCSTNUM = 0, -7 OR -8, SKIP SVCSTUNT.  
ELSE, GO TO SVCSTUNT.

**PROGRAMMER'S NOTE:**  
-7 and -8 are not valid response  
options for SVCSTUNT.

B14. Once you tried to get services, about how long was it before services started? [NOTE: PROBE FOR WHOLE NUMBERS. ROUND IF NECESSARY.]

SVCSTNUM

( )  
NUMBER

SVCSTUNT

( )  
UNIT

1. DAYS [H: 0-1095]
2. WEEKS [H: 0-156]
3. MONTHS [H: 0-36]
4. YEARS [H: 0-3]
- 7. REFUSED
- 8. DON'T KNOW



PEELS Section B 9-17-03

B15. After you knew where to go for services, how much effort did it take on your part to get preschool special education services through the school system started? Would you say it took...

[NOTE: IF R ASKS FOR CLARIFICATION ABOUT THE KIND OF EFFORTS: For instance, the number of phone calls you made, or the number of appointments you had, or the amount of paperwork you had to do to get services started.]

EFRTSTRT

( )

- 1. A lot of effort,
- 2. Some effort,
- 3. Little effort, or
- 4. No effort at all?
- 7. REFUSED
- 8. DON'T KNOW

BINTRO. Now I want to ask you about how well {CHILD} does some things. I'm going to start with hearing.

[PRESS ENTER TO CONTINUE.]

B16a. This question asks you to assess {CHILD}'s hearing without any hearing devices like a hearing aid. Compared with other children about the same age, would you say {CHILD}...

HEARCMP

( )

- 1. Hears normally,
- 2. Might have a hearing problem, or
- 3. Does have a hearing problem?
- 7. REFUSED
- 8. DON'T KNOW

B16b. Has {CHILD}'s hearing been tested by a professional?

HEARTSTD

( )

- 1. YES..... (GO TO BOX B16c)
- 2. NO ..... (GO TO B16p)
- 3. CAN'T BE TESTED ..... (GO TO B16p)
- 7. REFUSED..... (GO TO B16p)
- 8. DON'T KNOW..... (GO TO B16p)

Box B16c

IF B16a=1, GO TO B16p.  
ELSE, GO TO B16c.

PEELS Section B 9-17-03

B16c. Was a hearing problem diagnosed by a professional?  
DIAGPROF

- ( )
- 1. YES..... (GO TO B16d)
  - 2. NO ..... (GO TO B16p)
  - 7. REFUSED..... (GO TO B16e)
  - 8. DON'T KNOW..... (GO TO B16e)

**PROGRAMMER'S NOTE:**  
-7 and -8 are not valid response options for AGHRNUM.

B16d. How old was {CHILD} when {his/her} hearing problem was first diagnosed?  
AGHEARDG

- ( )
- 1. DIAGNOSED AT BIRTH..... (GO TO B16e)
  - 2. LESS THAN 1 MONTH..... (GO TO B16e)
  - 3. MONTHS ..... (GO TO B16dov)
  - 4. YEARS ..... (GO TO B16dov)
  - 7. REFUSED..... (GO TO B16e)
  - 8. DON'T KNOW..... (GO TO B16e)

B16dOV.  
AGHRNUM

\_\_\_\_\_ [H: MUST BE ≤ CURAGE]  
NUMBER

B16e. Is {CHILD}'s unaided hearing loss...  
HRNGLSS

- ( )
- 1. Mild, (LESS THAN OR EQUAL TO 40 DECIBEL HEARING LEVEL)
  - 2. Moderate, (41-70 DECIBEL HEARING LEVEL)
  - 3. Severe, or (71-90 DECIBEL HEARING LEVEL)
  - 4. Profound? (GREATER THAN 90 DECIBEL HEARING LEVEL)
  - 7. REFUSED
  - 8. DON'T KNOW

**PROGRAMMER'S NOTE:**  
-7 and -8 are not valid response options for AIDRXNUM.

PEELS Section B 9-17-03

B16h. Does (he/she) still use the hearing aid?

STLHRAID

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

B16i. Has (CHILD) received a cochlear implant? [IF NEEDED: A cochlear implant is a surgically implanted electronic device that can restore partial hearing to people with severe to profound hearing impairments.]

RCVCOCLR

( )

- 1. YES.....(GO TO B16j)
- 2. NO.....(GO TO BOX B16l)
- 7. REFUSED.....(GO TO BOX B16l)
- 8. DON'T KNOW.....(GO TO BOX B16l)

**PROGRAMMER'S NOTE:**

-7 and -8 are not valid response options for ACTVNUM.

B16j. How old was (he/she) when the cochlear implant was first activated?

ACTVUNT

- 1. MONTHS.....(GO TO B16jov)
- 2. YEARS.....(GO TO B16jov)
- 7. REFUSED.....(GO TO B16k)
- 8. DON'T KNOW.....(GO TO B16k)

B16jOV

ACTVNUM

[H: MUST BE ≤ CURAGE]

NUMBER

B16k. Does (CHILD) still use the cochlear implant?

USCOCHLR

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

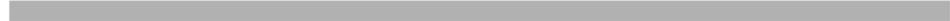
PEELS Section B 9-17-03

B16h. Does {he/she} still use the hearing aid?

STLHRAID

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW



B16i. Has {CHILD} received a cochlear implant? [IF NEEDED: A cochlear implant is a surgically implanted electronic device that can restore partial hearing to people with severe to profound hearing impairments.]

RCVCOCLR

( )

- 1. YES ..... (GO TO B16j)
- 2. NO ..... (GO TO BOX B16i)
- 7. REFUSED ..... (GO TO BOX B16i)
- 8. DON'T KNOW ..... (GO TO BOX B16i)



PROGRAMMER'S NOTE:  
-7 and -8 are not valid response options for ACTVNUM.

B16j. How old was {he/she} when the cochlear implant was first activated?

ACTVUNT

- 1. MONTHS ..... (GO TO B16jov)
- 2. YEARS ..... (GO TO B16jov)
- 7. REFUSED ..... (GO TO B16k)
- 8. DON'T KNOW ..... (GO TO B16k)

B16jOV

ACTVNUM

\_\_\_\_\_ [H: MUST BE ≤ CURAGE]

NUMBER



B16k. Does {CHILD} still use the cochlear implant?

USCOCLR

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW



PEELS Section B 9-17-03

**Box B16i**  
IF B16f=1 OR B16g=1 AND B16i=2 (NEVER USED HEARING AID OR COCHLEAR IMPLANT), GO TO B16m.  
ELSE, GO TO B16l.

B16l. How well does {CHILD} seem to hear with the currently used hearing device(s)? Would you say {he/she}...  
**WELHRDV** ( )

1. Hears normally,
2. Has a little trouble hearing,
3. Has a lot of trouble hearing, or
4. Doesn't hear at all?
- 7. REFUSED
- 8. DON'T KNOW

B16m. Is {CHILD} learning to understand or use...  
[YES=1, NO=2, REFUSED = -7, DON'T KNOW= -8, DOES NOT APPLY = 9]

**SIGNLNG** a. Sign language? [NOTE: SIGN LANGUAGE INCLUDES ANY TYPE OF COMMUNICATION SYSTEM USING THE HANDS, SUCH AS AMERICAN SIGN LANGUAGE (ASL) AND SIGNED ENGLISH.] ( )

**LIPREAD** b. Lip reading? [NOTE: LIP READING MEANS WATCHING THE LIPS OF THE SPEAKER TO DETERMINE WHAT IS BEING SAID.]..... ( )

**CUEDSP** c. Cued speech? [NOTE: CUED SPEECH IS A SYSTEM OF HAND SIGNALS MADE NEAR THE MOUTH, WHICH COMBINE WITH THE NATURAL LIP MOVEMENTS OF SPEECH TO VISUALLY "CUE" THE DISTINCTION OF SPOKEN LANGUAGE "SOUNDS".] ( )

**ORALSP** d. Oral speech? [NOTE: ORAL SPEECH TRAINING MEANS LEARNING TO SPEAK ORALLY (VOICED SPEECH).] ( )

**Box B16n**  
IF B16ma=1 (LEARNING TO USE SIGN LANGUAGE), GO TO B16n.  
ELSE, GO TO B16p.

B16n. What form of sign language is {CHILD} learning to use? Is it...  
**FORMLRNG** ( )

1. American Sign Language,
  2. Signed English, or
  91. Some other sign language system?
- FRMLRNOS** (Specify): \_\_\_\_\_
- 7. REFUSED
  - 8. DON'T KNOW

PEELS Section B 9-17-03

B16o. Do any other members of {CHILD}'s household use sign language to communicate with {him/her}?  
HHMEMSGN

- ( )
- 1. YES
  - 2. NO
  - 7. REFUSED
  - 8. DON'T KNOW

B16p. Did {CHILD} ever have 3 or more ear infections in a 12 month time period?  
FRQTINFC

- ( )
- 1. YES ..... (GO TO B16q)
  - 2. NO ..... (GO TO B17INTRO)
  - 7. REFUSED ..... (GO TO B17INTRO)
  - 8. DON'T KNOW ..... (GO TO B17INTRO)

B16q. Did {CHILD} have 3 or more ear infections in the last 12 months?  
FRQPSTYR

- ( )
- 1. YES
  - 2. NO
  - 7. REFUSED
  - 8. DON'T KNOW

**B17INTRO**

*Now I'm going to ask about {CHILD}'s vision.*

[PRESS ENTER TO CONTINUE.]

B17a. How is {CHILD}'s eyesight? Would you say {he/she}...  
CHDEYEST

- ( )
- 1. Sees normally without glasses ..... (GO TO B18)
  - 2. Might have a vision problem, or ..... (GO TO B17b)
  - 3. Does have a vision problem? ..... (GO TO B17b)
  - 7. REFUSED ..... (GO TO B17b)
  - 8. DON'T KNOW ..... (GO TO B17b)

PEELS Section B 9-17-03

B17b. Has {CHILD}'s vision been tested by a professional? [NOTE: IF THE R STATES THAT AN ATTEMPT WAS MADE TO TEST THE CHILDS' VISION, BUT {HE/SHE} WOULD NOT COOPERATE, SO THE VISION ACUITY COULD NOT BE DETERMINED ACCURATELY, RECORD (3), CAN'T BE TESTED.]  
VSPRFTST

- ( )
- 1. YES ..... (GO TO B17c)
  - 2. NO ..... (GO TO B18)
  - 3. CAN'T BE TESTED ..... (GO TO B18)
  - 7. REFUSED ..... (GO TO B18)
  - 8. DON'T KNOW ..... (GO TO B18)

---

B17c. Was a vision problem diagnosed by a professional?  
PRBDIAG

- ( )
- 1. YES ..... (GO TO B17d)
  - 2. NO ..... (GO TO B18)
  - 7. REFUSED ..... (GO TO B18)
  - 8. DON'T KNOW ..... (GO TO B18)

PROGRAMMER'S NOTE:  
-7 and -8 are not valid response  
options for AGVSNUM.

B17d. How old was {CHILD} when {his/her} vision problem was first diagnosed? [NOTE: IF R ANSWERS LESS THAN 3, PROBE FOR EXACT AGE IN MONTHS.]  
AGVSDIAG

- ( )
- 1. DIAGNOSED AT BIRTH ..... (GO TO B17e)
  - 2. LESS THAN 1 MONTH ..... (GO TO B17e)
  - 3. MONTHS ..... (GO TO B17dov)
  - 4. YEARS ..... (GO TO B17dov)
  - 7. REFUSED ..... (GO TO B17e)
  - 8. DON'T KNOW ..... (GO TO B17e)

B17dOV.  
AGVSNUM

\_\_\_\_\_ [H: MUST BE ≤ CURAGE]  
NUMBER

---

PEELS Section B 9-17-03

B17e. Were glasses prescribed to help {CHILD} see?

GLSPRSB

( )

- 1. YES ..... (GO TO B17f)
- 2. NO ..... (GO TO B18)
- 7. REFUSED ..... (GO TO B18)
- 8. DON'T KNOW ..... (GO TO B18)

B17f. How well can {CHILD} see with glasses? Would you say {he/she}...

VSWTHGLS

( )

- 1. Sees normally,
- 2. Has a little trouble seeing,
- 3. Has a lot of trouble seeing, or
- 4. Does not see at all?
- 7. REFUSED
- 8. DON'T KNOW

B17g. How well can {CHILD} see without glasses? Would you say {he/she}...

VSWOGLS

( )

- 1. Sees normally,
- 2. Has a little trouble seeing,
- 3. Has a lot of trouble seeing, or
- 4. Does not see at all?
- 7. REFUSED
- 8. DON'T KNOW

**Box B17h**

IF B17e=1 (GLASSES PRESCRIBED) AND B17g=1 (SEES NORMALLY WITHOUT GLASSES), GO TO B17h. ELSE, GO TO B18.

B17h. I may have entered something wrong. You indicated that glasses were prescribed to help {CHILD} see, but that {he/she} sees normally without glasses. Are both of these answers correct?

CHKB17EG

( )

- 1. YES, BOTH ARE CORRECT ..... (GO TO B18)
- 2. NO, CHILD WAS NOT PRESCRIBED GLASSES ..... (GO TO BOX B18)
- 3. NO, CHILD DOES NOT SEE NORMALLY WITHOUT GLASSES ..... (GO TO BOX B18)
- 7. REFUSED ..... (GO TO B18)
- 8. DON'T KNOW ..... (GO TO B18)

PEELS Section B 9-17-03

Box B18

IF B17h=2, SET B17e TO 2, B17f TO -1, AND B17g TO -1.  
IF B17h=3, GO TO B17g.

B18. Now I'd like to ask some questions about {CHILD}'s communication skills. Compared with other children about the same age, how would you describe {CHILD}'s **understanding** of verbal or nonverbal communication (signs, gestures, symbol systems)? Would you say {he/she}...

VERBCOMM

( )

1. Understands just as well as other children,
2. Has a little trouble understanding,
3. Has a lot of trouble understanding, or
4. Does not understand at all?
- 7. REFUSED
- 8. DON'T KNOW

B19. Compared with other children about the same age, how well does {CHILD} make {his/her} needs known to you and others? Communication can be any form, for example crying, pointing, or talking. Would you say {he/she}...

NDSKNWN

( )

1. Communicates just as well as other children,
2. Has a little trouble communicating,
3. Has a lot of trouble communicating, or
4. Does not communicate at all?
- 7. REFUSED
- 8. DON'T KNOW

B20a. How does {CHILD} make {his/her} needs known to you? Does {he/she} primarily use...

HOWCOM1

( )

1. Spoken words, or..... (GO TO B21a)
2. Some other way of communicating?..... (GO TO B20b)
- 7. REFUSED..... (GO TO B21a)
- 8. DON'T KNOW..... (GO TO B21a)

VARIABLE NOTE:

If B20b = 8, it can only equal 8. If R states "no communication at all," they will skip immediately to B22. No other responses will be allowed.

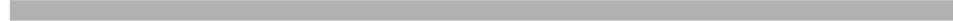
PEELS Section B 9-17-03

B20b. How does {CHILD} communicate? [PROBE: For example, does {he/she} use sounds that are not words, or gestures, including pointing?]

[CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

- COMSDS 1. SOUNDS THAT ARE NOT WORDS
- COMGST 2. GESTURES, INCLUDING POINTING
- COMSIGN 3. SIGN LANGUAGE
- COMBD 4. COMMUNICATION BOARD OR BOOK
- COMCRY 5. CRYING
- COMLEAD 6. LEADING, TAKE BY THE HAND AND SHOW
- COMHIT 7. HITTING, AGGRESSION
- COMMONONE 8. NO COMMUNICATION AT ALL.....(GO TO B22)
- COMOTR 91. OTHER
- HOWCOMOS (SPECIFY): \_\_\_\_\_
- 7. REFUSED..... (GO TO B21a)
- 8. DON'T KNOW..... (GO TO B21a)



GO TO B21b.	Box B20b
-------------	----------

B21a. Does {CHILD} primarily use...

WORDUSE

( )

- 1. Single words,
- 2. 2 or 3 word utterances, or
- 3. Complete sentences?
- 7. REFUSED
- 8. DON'T KNOW



B21b. When {CHILD} talks to people {he/she} doesn't know well, is {he/she}...

EASYUNDR

( )

- 1. Very easy to understand,
- 2. Fairly easy to understand,
- 3. Somewhat hard to understand, or
- 4. Very hard to understand?
- 5. DOES NOT TALK AT ALL
- 7. REFUSED
- 8. DON'T KNOW



PEELS Section B 9-17-03

B22. Next, I want to ask about {CHILD}'s physical abilities. How well does {he/she} use {his/her} hands and fingers for things like buttoning a shirt or using a spoon, pencil, or scissors? Would you say {he/she}...[NOTE: IF R REPORTS DIFFERENTLY FOR EACH ARM/HAND, CODE THE ARM/HAND THAT HAS THE MOST TROUBLE. THIS DOES NOT REFER TO TEMPORARY DIFFICULTIES SUCH AS A BROKEN ARM.]

**BARMSFMS**

( )

1. Uses {his/her} hands and fingers normally,
2. Has a little trouble using them,
3. Has a lot of trouble using them, or
4. Has no use at all of {his/her} hands and fingers?
5. MISSING ONE OR BOTH HANDS
- 7. REFUSED
- 8. DON'T KNOW

B23. How well does {he/she} use {his/her} arms and hands for things like throwing, lifting, or carrying? Would you say {he/she}...[NOTE: IF R REPORTS DIFFERENTLY FOR EACH ARM/HAND, CODE THE ARM/HAND THAT HAS THE MOST TROUBLE. THIS DOES NOT REFER TO TEMPORARY DIFFICULTIES SUCH AS A BROKEN ARM.]

**BARMSGMS**

( )

1. Uses {his/her} arms and hands normally,
2. Has a little trouble using one or both,
3. Has a lot of trouble using one or both, or
4. Has no use at all of one or both of arms or hands?
5. MISSING ONE OR BOTH ARMS
- 7. REFUSED
- 8. DON'T KNOW

B24. How well does {CHILD} use {his/her} legs and feet? Would you say {he/she}...[NOTE: IF R REPORTS DIFFERENTLY FOR EACH LEG/FOOT, CODE THE SIDE THAT HAS THE MOST TROUBLE. DO NOT INCLUDE TEMPORARY DIFFICULTIES, SUCH AS A BROKEN LEG.]

**BLEGSWEL**

( )

1. Uses both legs and feet normally, ..... (GO TO B26)
2. Has a little trouble using one or both, ..... (GO TO B25a)
3. Has a lot of trouble using one or both, or ..... (GO TO B25a)
4. Has no use at all of one or both legs or feet? ..... (GO TO B25a)
5. MISSING ONE OR BOTH LEGS ..... (GO TO B25a)
- 7. REFUSED ..... (GO TO B25a)
- 8. DON'T KNOW ..... (GO TO B25a)

PEELS Section B 9-17-03

B25a. Does (he/she) use any equipment to help (him/her) get around, such as crutches, a walker, or a wheelchair?  
BLEGEQIP

( )

- 1. YES..... (GO TO B25b)
- 2. NO ..... (GO TO B26)
- 7. REFUSED ..... (GO TO B26)
- 8. DON'T KNOW ..... (GO TO B26)

B25b. What is the equipment (he/she) uses?

[CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( )

- BCRUTCH            1. CRUTCHES
- BWALKER           2. WALKER
- BBRACES            3. LEG BRACES
- BWHCHAIR          4. WHEELCHAIR
- BCANE              5. CANE
- BLEGOTR/BLEGOS 91. OTHER (Specify): \_\_\_\_\_
- 7. .... REFUSED
- 8. .... DON'T KNOW

B26. Now I have some questions about (CHILD)'s health. Compared with other children about the same age, would you say (his/her) general health is...

BHLTHCMP

- 1. Excellent,
- 2. Very good,
- 3. Good,
- 4. Fair, or
- 5. Poor?
- 7. REFUSED
- 8. DON'T KNOW

B27a. Are (CHILD)'s activities limited in any way because of a health problem?

ACTLMTD

( )

- 1. YES..... (GO TO B27b)
- 2. NO ..... (GO TO B28a)
- 7. REFUSED ..... (GO TO B28a)
- 8. DON'T KNOW ..... (GO TO B28a)

B27b. What is the nature of the health problem?

[REFER TO DISABILITY HANDCARD. CODE ALL THAT APPLY. PRESS CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( )

**PROGRAMMER NOTE: RESPONSE CATEGORIES WILL NOT APPEAR ON THE SCREEN BUT INSTEAD WILL BE ON A HANDCARD FOR THE INTERVIEWER.**

NA	HAS NO PROBLEM/DISABILITY/NOT GETTING SPECIAL SERVICES
1	SPEECH IMPAIRMENT/COMMUNICATION IMPAIRMENT
2	DEVELOPMENTAL DISABILITY OR DELAY (DD)
3	AUTISM
4	MENTAL RETARDATION (EMR, TMR, SMR, MR)
5	AMPUTATION OF A LIMB

PEELS Section B 9-17-03

6	APHASIA
7	ARTHRITIS
8	ASTHMA
9	ATTENTION DEFICIT DISORDER (ADD)/ ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD)
10	CANCER/LYMPHOMA/SARCOMA
11	CEREBRAL PALSY (CP)
12	CYSTIC FIBROSIS (CF)
13	DEAFNESS
14	DEAFNESS AND BLINDNESS
15	DEPRESSION
16	BLINDNESS (COMPLETE)
17	DIABETES
18	DOWN'S SYNDROME
19	DYSLEXIA (REVERSES LETTERS WHEN READING)
20	EDUCATIONAL HANDICAP (EH)
21	EMOTIONAL DISTURBANCE/BEHAVIOR DISORDER (ED, BD, HAVING EMOTIONAL PROBLEMS, SED)
22	EMPHYSEMA
23	ENCEPHALITIS
24	EPILEPSY
25	HARD OF HEARING/HEARING IMPAIRMENT
26	HEART DISEASE
27	HEALTH IMPAIRMENT (SPECIFY DISEASE): _____
28	HEMOPHILIA
29	HYPERACTIVE
30	LEARNING DISABILITY/LEARNING HANDICAP (LD)
31	LEUKEMIA
32	MULTIPLE SCLEROSIS (MS)
33	MUSCULAR DYSTROPHY
34	NEUROLOGICAL IMPAIRMENT
35	NEUROSIS
36	PARAPLEGIA OR PARTIAL PARALYSIS
37	PHYSICAL OR ORTHOPEDIC IMPAIRMENT
38	POLIO
39	PSYCHOSIS
40	QUADRIPLEGIA OR COMPLETE PARALYSIS
41	SCHIZOPHRENIA
42	SPINA BIFIDA
43	STROKE
44	TRAUMATIC BRAIN INJURY (TBI)
45	TROUBLE WITH SCHOOL SUBJECT (E.G., MATH OR READING)
46	VISUAL IMPAIRMENT/PARTIAL SIGHT
47	"JUST SLOW"
91	OTHER (SPECIFY): _____
-7	REFUSED
-8	DON'T KNOW



PEELS Section B 9-17-03

B28a. Not including mobility devices, like a wheelchair, walker, or cane, does {CHILD} use any kind of medical device, like an oxygen tank, catheter, or a breathing monitor?

BMDEQ

( )

- 1. YES..... (GO TO B28b)
- 2. NO ..... (GO TO B29)
- 7. REFUSED ..... (GO TO B29)
- 8. DON'T KNOW ..... (GO TO B29)

B28b. What are the devices?

[CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( )

- BOXYGEN                    1. OXYGEN TANK
- BCATHTR                    2. CATHETER
- BFDTUBE                    3. FEEDING TUBE
- BMDEQOTR/BMDEQOS 91. OTHER (Specify): \_\_\_\_\_

B29. Does {CHILD} have a place to go for regular medical care where they know {him/her} and {his/her} medical history? [NOTE: REGULAR MEDICAL CARE INCLUDES GENERAL CHECK-UPS AS WELL AS WHERE THE CHILD GOES WHEN HE OR SHE IS SICK.]

BREGMED

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

B30. Is {CHILD} now covered by health insurance from an employer or union, or that your family buys directly?

HIEMBUY

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

VARIABLE NOTE:

STATE = State the child lives in (preloaded variable).

MEDICAID = Name of State's Medicaid program or "Medicaid" if no specific program exists.

CHIP = Name of State's CHIP program.

If CHIP = -1, then display "or" and {CHIP}. Else, do not show the displays.

B31. Is {CHILD} covered by {STATE}'s government-assisted health insurance, such as {MEDICAID} {or} {CHIP}?

HIGOV

DEEL S 2002 Parent Instrument

22

PEELS Section B 9-17-03

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW



B32. Is {CHILD} covered by any other health insurance program?  
HIOOTHER

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW



**Box B33**  
IF B30, B31, OR B32 =1 (HAS ANY HEALTH INSURANCE), GO TO B33.  
ELSE, GO TO B34.

B33. Is any of {CHILD}'s coverage through an HMO (Health Maintenance Organization)? [IF NEEDED:  
Sometimes it's called managed care.]

HIHMO

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW



B34. Have you ever had to change insurance plans or buy extra insurance for {CHILD} because of {his/her}  
special needs? [NOTE: IF CHILD HAS NEVER BEEN COVERED BY INSURANCE, ENTER "9. DOES NOT  
APPLY"]

HICHGEVR

( )

- 1. YES
- 2. NO
- 9. DOES NOT APPLY
- 7. REFUSED
- 8. DON'T KNOW



PEELS Section B 9-17-03

B35a. Have you ever tried to get your insurance or health plan to pay for something for {CHILD} but they wouldn't pay? [NOTE: IF CHILD HAS NEVER BEEN COVERED BY INSURANCE, ENTER "9. DOES NOT APPLY".]

HIPAYSOM

( )

- 1. YES..... (GO TO B35b)
- 2. NO ..... (GO TO B36)
- 9. DOES NOT APPLY..... (GO TO B36)
- 7. REFUSED ..... (GO TO B36)
- 8. DON'T KNOW ..... (GO TO B36)

B35b. What wouldn't your insurance pay for?

[CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

- HITEST 1. DIAGNOSTIC PROCEDURES OR TESTS OR EVALUATIONS
- HIMEDI 2. PRESCRIPTIONS/MEDICATION
- HIMHLTH 3. MENTAL HEALTH SERVICES
- HISPECIA 4. DOCTOR OR OTHER MEDICAL SPECIALISTS
- HISEQUIP 5. SPECIAL EQUIPMENT/DEVICES
- HISURG 6. SURGERY
- HIEDUTHE 7. EDUCATION/EDUCATIONAL THERAPY
- HIOHTHE 8. THERAPY SERVICES (OCCUPATIONAL THERAPY, PHYSICAL THERAPY, SPEECH THERAPY)
- HALTTHE 9. ALTERNATIVE THERAPIES ( ACUPUNCTURE, MASSAGE THERAPY, BIOFEEDBACK)
- HISPCLFD 10. SPECIAL FOOD
- HICHKUP 11. CHECKUPS AND IMMUNIZATIONS
- HIEMERG 12. EMERGENCY ROOM VISITS
- HIAMBLNC 13. AMBULANCE OR TRANSPORTATION TO TREATMENT
- HIHM CARE 14. HOME CARE OR NURSING
- HIOTHR 91. OTHER
- HIOTHROS (SPECIFY): \_\_\_\_\_
- 7. REFUSED
- 8. DON'T KNOW

B36. How long has it been since {CHILD}'s last visit to a dentist or dental hygienist for dental care? Was it...

DNTLVISIT

( )

- 1. Less than 6 months ago,
- 2. Between 6 months and one year ago,
- 3. Between 1 and 2 years ago,
- 4. More than 2 years ago, or
- 5. Never?
- 7. REFUSED
- 8. DON'T KNOW

B37a. Now I'm going to ask you some questions about any prescription drugs {CHILD} is currently taking. Please do not include over-the-counter medications or a single round of prescription medication to treat an episodic illness, such as antibiotics for a one-time illness. Is {CHILD} now regularly taking any prescription medicine for a specific condition or problem?

DISBMED

( )

- 1. YES..... (GO TO B37b)
- 2. NO ..... (GO TO B38)
- 7. REFUSED ..... (GO TO B38)
- 8. DON'T KNOW ..... (GO TO B38)

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B37b. Is (he/she) taking any prescription medicine that controls (his/her) behavior or changes (his/her) mood, such as Ritalin or an antidepressant?

BMOODMED

- 1. YES .....(Go to B37c)
- 2. NO .....(Go to B38)
- 7. REFUSED .....(Go to B38)
- 8. DON'T KNOW .....(Go to B38)

B37c. What is the name of the prescription medicine (CHILD) is taking to control (his/her) behavior or change (his/her) mood? I can wait while you go get the medicine bottle, so we'll get the name right. [IF NEEDED: You may give us either the brand name or the generic name.]

REFER TO HARD COPY LIST OF PRESCRIPTION MEDICINES, LOCATE NAME OF DRUG GIVEN BY RESPONDENT AND ENTER CORRESPONDING CODE. PROBE FOR ANY OTHER MEDICINES UNTIL RESPONDENT SAYS NO. THE "99. OTHER" CODE MAY BE ENTERED UP TO FIVE TIMES.

[CODE ALL THAT APPLY. CTRL/P TO EXIT.]  
 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

BMEDSIN			Go to Box B37e
BMEDADD	2	ADAPIN (DOXEPIN)	Go to Box B37e
BMEDADD	2	ADDERAL (AMPHETAMINE)	"
BMEDXAN	3	ALPRAZOLAM (XANAX)	"
BMEDAMB	4	AMBIEN (ZOLPIDEM TARTRATE)	"
B7D_05	5	AMITRIPTYLINE (ELAVIL, ENDEP )	"
B7D_06	6	AMOXAPINE (ASENDIN)	"
BMEDADD	2	AMPHETAMINE (ADDERAL)	"
BMEDANA	7	ANAFRANIL (CLOMIPRAMINE)	"
B7D_08	8	AQUACHLORAL SUPPRETTES (CHLORAL HYDRATE)	"
B7D_06	6	ASENDIN (AMOXAPINE)	"
B7D_09	9	ATARAX (ANTIHISTAMINE)	"
B7D_10	10	ATIVAN (LORAZEPAM)	"
B7D_11	11	AVENTYL (NORTRIPTYLINE)	"
B7D_12	12	AZENE (CLORAZEPATE)	"
B7D_13	13	BENADRYL (DIPHENYLHYDRAMINE)	"
B7D_14	14	BENZODIAZEPINES (VALIUM AND OTHERS)	"
BMEDWEL	15	BUPROPION (WELLBUTRIN)	"
B7D_16	16	BUSPAR (BUSPIRONE)	"
B7D_16	16	BUSPIRONE (BUSPAR)	"
BMEDTEG	17	CARBAMAZEPINE (TEGRETOL)	"
B7D_18	18	CELEXA (CITALOPRAM)	"
B7D_19	19	CENTRAX (PRAZEPAM)	"
B7D_08	8	CHLORAL HYDRATE (AQUACHLORAL SUPPRETTES)	"
B7D_20	20	CHLORDIAZEPOXIDE (LIBRAX, LIBRITABS, LIBRIUM)	"
B7D_21	21	CHLORPROMAZINE (THORAZINE)	"
B7D_22	22	CHLORPROTHIXENE (TARACTAN)	"
B7D_23	23	CIBALITH-S (LITHIUM CITRATE)	"
B7D_18	18	CITALOPRAM (CELEXA)	"
B7D_07	7	CLOMIPRAMINE (ANAFRANIL)	"
B7D_24	24	CLONAZEPAM (KLONOPIN)	"
B7D_12	12	CLORAZEPATE (AZENE, TRANXENE)	"
BMEDCLO	25	CLOZAPINE (CLOZARIL)	"
BMEDCLO	25	CLOZARIL (CLOZAPINE)	"
BMEDRIT	26	CONCERTA (METHYLPHENIDATE, RITALIN)	"
BMEDCYL	27	CYLERT (PEMOLINE)	"
B7D_28	28	DALMANE (FLURAZEPAM)	"
BMEDDEX	29	D-AMPHETAMINE (DEXEDRINE)	"
B7D_30	30	DAXOLIN (LOXAPINE)	"
BMEDDEP	31	DEPAKOTE (DIVALPROEX SODIUM)	"

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B7D_32	32	DESIPRAMINE (NORPRAMIN, PERTOFRANE)	“
B7D_33	33	DESYREL (TRAZODONE)	“
BMEDDEX	29	DEXEDRINE (DEXTROAMPHETAMINE, D- AMPHETAMINE)	“
BMEDDEX	29	DEXTROAMPHETAMINE (DEXEDRINE)	“
B7D_34	34	DIAZAPAM (VALIUM)	“
B7D_13	13	DIPHENYLHYDRAMINE (BENADRYL)	“
BMEDDEP	31	DIVALPROEX SODIUM (DEPAKOTE)	“
B7D_35	35	DORAL (QUAZEPAM)	“
BMEDSIN	1	DOXEPIN (ADAPIN, SINEQUAN)	“
BMEDEFF	36	EFFEXOR (VENLAFAXINE)	“
B7D_05	5	ELAVIL (AMITRIPTYLINE)	“
B7D_05	5	ENDEP (AMITRIPTYLINE)	“
B7D_37	37	EQUANIL (MEPROBAMATE)	“
BMEDESK	38	ESKALITH (LITHIUM CARBONATE)	“
B7D_39	39	ESTAZOLAM (PROSOM)	“
BMEDPRO	40	FLUOXETINE (PROZAC)	“
B7D_41	41	FLUPHENAZINE (PERMITIL, PROLIXIN)	“
B7D_28	28	FLURAZEPAM (DALMANE)	“
BMEDLUV	42	FLUVOXAMINE (LUVOX)	“
BMEDNEU	43	GABAPERTIN (NEURONTIN)	“
B7D_44	44	HALAZEPAM (PAXIPAM)	“
B7D_45	45	HALCION (TRIAZOLAM)	“
BMEDHAL	46	HALDOL (HALOPERIDOL)	“
BMEDHAL	46	HALOPERIDOL (HALDOL)	“
BMEDTOF	47	IMIPRAMINE (TOFRANIL)	“
B7D_48	48	INDERAL (PROPRANOLOL)	“
B7D_48	48	INDERIDE (PROPRANOLOL)	“
B7D_49	49	ISOCARBOXAZID (MARPLAN)	“
B7D_24	24	KLONOPIN (CLONAZEPAM)	“
BMEDLAM	50	LAMICTAL (LAMOTRIGINE)	“
BMEDLAM	50	LAMOTRIGINE (LAMICTAL)	“
B7D_20	20	LIBRAX (CHLORDIAZEPOXIDE)	“
B7D_20	20	LIBRITABS (CHLORDIAZEPOXIDE)	“
B7D_20	20	LIBRIUM (CHLORDIAZEPOXIDE)	“
B7D_51	51	LIDONE (MOLINDONE)	“
BMEDESK	38	LITHANE (LITHIUM CARBONATE)	“
BMEDESK	38	LITHIUM CARBONATE (ESKALITH, LITHANE, LITHOBID)	“
B7D_23	23	LITHIUM CITRATE (CIBALITH-S)	“
BMEDESK	38	LITHOBID (LITHIUM CARBONATE)	“
B7D_10	10	LORAZEPAM (ATIVAN)	“
B7D_30	30	LOXAPINE (DAXOLIN, LOXITANE)	“
B7D_30	30	LOXITANE (LOXAPINE)	“
B7D_52	52	LUDIOMIL (MAPROTILINE)	“
BMEDLUV	42	LUVOX (FLUVOXAMINE)	“
B7D_52	52	MAPROTILINE (LUDIOMIL)	“
B7D_49	49	MARPLAN (ISOCARBOXAZID)	“
B7D_53	53	MELATONIN	“
BMEDTHI	54	MELLARIL (THIORIDAZINE)	“
B7D_37	37	MEPROBAMATE (EQUANIL)	“
B7D_55	55	MESORIDAZINE (SERENTIL)	“
BMEDRIT	26	METHYLPHENIDATE (RITALIN, CONCERTA)	“
B7D_56	56	MIRTAZAPINE (REMERN)	“
B7D_51	51	MOBAN (MOLINDONE)	“
B7D_51	51	MOLINDONE (LIDONE, MOBAN)	“
B7D_57	57	NARDIL (PHENELZINE)	“
B7D_58	58	NAVANE (THIOETHIXENE)	“
BMEDSERZ	59	NEFAZODONE (SERZONE)	“
BMEDNEU	43	NEURONTIN (GABAPERTIN)	“
B7D_32	32	NORPRAMIN (DESIPRAMINE )	“
B7D_11	11	NORTRIPTYLINE (AVENTYL, PAMELOR)	“
BMEDZYP	60	OLANZAPINE (ZYPREXA)	“
BMEDORA	61	ORAP (PIMOZIDE)	“

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B7D_62	62	OXAZEPAM (SERAX)	“
B7D_11	11	PAMELOR (NORTRIPTYLINE)	“
B7D_63	63	PARNATE (TRANLYCYPROMINE)	“
BMEDPAX	64	PAROXETINE (PAXIL)	“
BMEDPAX	64	PAXIL (PAROXETINE)	“
B7D_44	44	PAXIPAM (HALAZEPAM)	“
BMEDCYL	27	PEMOLINE (CYLERT)	“
B7D_41	41	PERMITIL (FLUPHENAZINE)	“
B7D_65	65	PERPHENAZINE (TRILAFON)	“
B7D_32	32	PERTOFRANE (DESIPRAMINE )	“
B7D_57	57	PHENELZINE (NARDIL)	“
B7D_66	66	PHENOBARBITOL	“
BMEDORA	61	PIMOZIDE (ORAP)	“
B7D_19	19	PRAZEPAM (CENTRAX)	“
B7D_41	41	PROLIXIN (FLUPHENAZINE)	“
B7D_48	48	PROPRANOLOL (INDERAL, INDERIDE)	“
B7D_39	39	PROSOM (ESTAZOLAM)	“
B7D_67	67	PROTRIPTYLINE (VIVACTIL)	“
BMEDPRO	40	PROZAC (FLUOXETINE)	“
B7D_35	35	QUAZEPAM (DORAL)	“
BMEDSERO	68	QUETIAPINE (SEROQUEL)	“
B7D_56	56	REMERON (MIRTAZAPINE)	“
B7D_69	69	RESTORIL (TEMAZEPAM)	“
BMEDRIS	70	RISPERDAL (RISPERIDONE)	“
BMEDRIS	70	RISPERIDONE (RISPERDAL)	“
BMEDRIT	26	RITALIN (METHYLPHENIDATE)	“
B7D_62	62	SERAX (OXAZEPAM)	“
B7D_55	55	SERENTIL (MESORIDAZINE)	“
BMEDSERO	68	SEROQUEL (QUETIAPINE)	“
BMEDZOL	71	SERTRALINE (ZOLOFT)	“
BMEDSERZ	59	SERZONE (NEFAZODONE)	“
BMEDSIN	1	SINEQUAN (DOXEPIN)	“
B7D_72	72	STELAZINE (TRIFLUOPERAZINE)	“
B7D_73	73	SURMONTIL (TRIMIPRAMINE)	“
B7D_22	22	TARACTAN (CHLORPROTHIXENE)	“
BMEDTEG	17	TEGRETOL (CARBAMAZEPINE)	“
B7D_69	69	TEMAZEPAM (RESTORIL)	“
BMEDTHI	54	THIORIDAZINE (MELLARIL)	“
B7D_58	58	THIOTHIXENE (NAVANE)	“
B7D_21	21	THORAZINE (CHLORPROMAZINE)	“
BMEDTOF	47	TOFRANIL (IMIPRAMINE)	“
B7D_12	12	TRANXENE (CLORAZEPATE)	“
B7D_63	63	TRANLYCYPROMINE (PARNATE)	“
B7D_33	33	TRAZODONE (DESYREL)	“
B7D_45	45	TRIAZOLAM (HALCION)	“
B7D_74	74	TRICYCLICS (ELAVIL AND OTHERS)	“
B7D_72	72	TRIFLUOPERAZINE (STELAZINE)	“
B7D_75	75	TRIFLUPROMAZINE (VESPRIN)	“
B7D_65	65	TRILAFON (PERPHENAZINE )	“
B7D_73	73	TRIMIPRAMINE (SURMONTIL)	“
B7D_34	34	VALIUM (DIAZAPAM)	“
BMEDEFF	36	VENLAFAXINE (EFFEXOR)	“
B7D_75	75	VESPRIN (TRIFLUPROMAZINE)	“
B7D_76	76	VISTARIL (ANTI HISTAMINE)	“
B7D_67	67	VIVACTIL (PROTRIPTYLINE)	“
BMEDWEL	15	WELLBUTRIN (BUPROPION)	“
BMEDXAN	3	XANAX (ALPRAZOLAM)	“
BMEDZOL	71	ZOLOFT (SERTRALINE)	“
BMEDAMB	4	ZOLPIDEM TARTRATE (AMBIEN)	“
BMEDZYP	60	ZYPREXA (OLANZAPINE)	“
B7D_90	90	ANTICONSULSANT, UNSPECIFIED	“
B7D_91	91	ANTIDEPRESSANT OR ANTIANXIETY, UNSPECIFIED	“

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B7D_92	92	ANTIHISTAMINE, UNSPECIFIED	“
B7D_93	93	ANTIPSYCHOTIC OR NEUROLEPTIC, UNSPECIFIED	“
B7D_94	94	BARBITURATE, UNSPECIFIED	“
B7D_95	95	MOOD STABILIZER, UNSPECIFIED	“
B7D_96	96	SLEEP MEDICATION, UNSPECIFIED	“
B7D_97	97	STIMULANT, UNSPECIFIED	“
B7D_98	98	SOMETHING ELSE, BUT DON'T KNOW WHAT	“
BMEDOTR	99	OTHER	Go to B7D_OS1
BMEDOS1		(SPECIFY): _____	
BMEDOS2		(SPECIFY): _____	
BMEDOS3		(SPECIFY): _____	
BMEDOS4		(SPECIFY): _____	
BMEDOS5		(SPECIFY): _____	

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	-7	REFUSED	Go to BOX B37E
	-8	DON'T KNOW	Go to BOX B37E

**Box B37e**

IF A21=2 (NOT IN SCHOOL) OR A23=5 (HOME-BASED SERVICES), GO TO B38.  
ELSE, GO TO B37e.

B37e. Does (he/she) take (his/her) medication while (he/she) is at school?  
BMEDSCHL

( )

- 1. YES..... (GO TO B37f)
- 2. NO ..... (GO TO B38)
- 7. REFUSED..... (GO TO B38)
- 8. DON'T KNOW..... (GO TO B38)

B37f. Does someone at the school give (him/her) the medication?  
BMEDSPER

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

**PROGRAMMER'S NOTE:**  
-7 and -8 are not valid response options for HOSPNUM.

B38. In the last year, about how many nights has {CHILD} stayed overnight in a hospital?  
NITSHOSP

( )

- 1. CHILD HAS BEEN IN HOSPITAL FOR PAST YEAR
- 2. NIGHTS ..... (GO TO B38ov)
- 7. REFUSED
- 8. DON'T KNOW

B38OV  
HOSPNUM

\_\_\_\_\_ [S: 0-180] [H: 0-365]  
NUMBER

PEELS Section B 9-17-03

B39. During the past 12 months how many times has {CHILD} been to a hospital emergency room?

TMSEMRGN

( )  
NUMBER [S: 0-60] [H: 0-120]

- 7. REFUSED
- 8. DON'T KNOW



PEELS Section C 8-26-03

Section C – Child Behavior

VARIABLE NOTE:

CHILD= (student's first name)  
=C\_FNAME (student's first name  
on load file)

If B4=1, -7, or -8, display, "who do  
not have special needs." Else, do  
not show display.

If A1 = 1, display, "him, he, or his."  
Else, display "her, she, or hers."

*C1. For the next series of questions, I'd like you to compare {CHILD} to children about the same age (who do not have special needs). Some children are fairly quiet and passive and it takes a lot to get them to react to things. Does this sound...[IF NEEDED: By "quiet and passive," we mean slow to respond to things happening in the child's environment, like when someone talks to {him/her} or shows {him/her} something new.]*

CBQUIET

1. Very much like {CHILD},
  2. A little like {him/her}, or
  3. Not like {him/her}?
- 7 REFUSED  
-8. DON'T KNOW

*C2. Some children are jumpy and get easily startled by things like loud noises or quick movement. Does this sound...[IF NEEDED: By "jumpy and easily startled," we mean highly reactive to noise or movements or visual stimuli in the environment.]*

CBJUMPY

1. Very much like {CHILD},
  2. A little like {him/her}, or
  3. Not like {him/her}?
- 7 REFUSED  
-8. DON'T KNOW

PEELS Section C 8-26-03

C3. *Some children are good at paying attention to things and staying focused on what they are doing. Does this sound... [IF NEEDED: By "staying focused," we mean able to continue what {he/she} is doing even when other things are going on around {him/her}.]*

CBPYATTN

1. Very much like {CHILD},
2. A little like {him/her}, or
3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW

C4. *Some children like to do things on their own even if it's hard. Does this sound...*

CBONOWN

1. Very much like {CHILD},
2. A little like {him/her}, or
3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW

C5. *Some children are restless, fidget a lot, and have trouble sitting still. Does this sound... [IF NEEDED: By "very active and restless," we mean always on the move even when presented with tasks appropriate for {his/her} age that require sitting still.]*

CBRSTLSS

1. Very much like {CHILD},
2. A little like {him/her}, or
3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW

C6. *Some children try to finish things, even if it takes a long time. Does this sound...*

CBFINISH

1. Very much like {CHILD},
2. A little like {him/her}, or
3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW

PEELS Section C 8-26-03

*C7. Some children get easily involved in everyday things that go on at home, like playing with toys, or paying attention to conversations. Does this sound...*

CBINVLED

- 1. Very much like {CHILD},
- 2. A little like {him/her}, or
- 3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW



*C8. Some children get very distracted by sights and sounds, and can't screen them out very well. Does this sound...*

CBDSTRCT

- 1. Very much like {CHILD},
- 2. A little like {him/her}, or
- 3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW



*C9. Some children have a great deal of difficulty adjusting to changes in their routines or schedules. Does this sound...*

CBCHANGE

- 1. Very much like {CHILD},
- 2. A little like {him/her}, or
- 3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW



*C10. Some children are frequently anxious or depressed. Does this sound...*

CBDEPRSD

- 1. Very much like {CHILD},
- 2. A little like {him/her}, or
- 3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW



PEELS Section C 8-26-03

C11. When adults are nearby, some children show interest by talking to them or approaching them. Does this sound...

CBINTRST

1. Very much like {CHILD},
2. A little like {him/her}, or
3. Not like {him/her}?
- 7 REFUSED
- 8. DON'T KNOW

C12. Would you say that {CHILD}...

CBPLAYNG

1. Has no trouble playing with other children,
2. Has some trouble playing with other children, or
3. Has a lot of trouble playing with other children?
4. NOT AROUND OTHER CHILDREN
- 7 REFUSED
- 8. DON'T KNOW

C13. Would you say that {CHILD} is...[IF NEEDED: By "physically aggressive," we mean grabbing, pushing, or hitting other children.]

CBAGGRSV

1. Not at all physically aggressive with other children,
2. Sometimes physically aggressive with other children, or
3. Often physically aggressive with other children?
4. NOT AROUND OTHER CHILDREN
- 7 REFUSED
- 8. DON'T KNOW

C14. During the past year, has {he/she} been invited to another child's birthday party?

CBINVITE

1. YES
2. NO
- 7 REFUSED
- 8. DON'T KNOW

PEELS Section C 8-26-03

*C15. Some children have a lot of trouble making or keeping friends. Does this sound...*

CBFRIEND

1. Very much like {CHILD},
  2. A little like {him/her}, or
  3. Not like {him/her}?
- 7 REFUSED  
-8. DON'T KNOW

*C16. When some children are with other children their same age, they take turns and cooperate. Does this sound...*

CBTKTURN

1. Very much like {CHILD},
  2. A little like {him/her}, or
  3. Not like {him/her}?
  4. CHILD NEVER INTERACTS WITH PEERS
- 7 REFUSED  
-8. DON'T KNOW

*C17. Would you say that {CHILD} ...*

CBTEMPER

1. Rarely has temper tantrums,
  2. Sometimes has temper tantrums, or
  3. Often has temper tantrums?
- 7 REFUSED  
-8. DON'T KNOW

*C18. Would you say that {CHILD} is... [IF NEEDED: By "manage," we mean any behaviors or things that you might do to get the child to cooperate to the extent appropriate in daily activities or be redirected to other activities when necessary to get {him/her} to do what you want {him/her} to do.]*

CBMANAGE

1. Easy to manage,
  2. Sometimes hard to manage, or
  3. Often hard to manage?
- 7 REFUSED  
-8. DON'T KNOW

PEELS Section C 8-26-03

C23. How high can {CHILD} count? Would you say...  
CBCOUNT

1. Not at all,
2. Up to five,
3. Up to 10,
4. Up to 20,
5. Up to 50, or
6. Up to 100 or more?
- 7 REFUSED
- 8. DON'T KNOW



C24. Can {CHILD} identify the colors, yellow, blue, and green by name? Would you say...  
CBCOLORS

1. None of them,
2. Some of them, or
3. All of them?
4. CHILD IS BLIND
- 7 REFUSED
- 8. DON'T KNOW



<b>Box C-1</b>
IF C24 = 4, GO TO BOX DINTRO. ELSE, GO TO C25a.

C25a. Is {CHILD} able to read storybooks on {his/her} own now?  
CBRDSTRY

1. YES
2. NO
- 7 REFUSED
- 8. DON'T KNOW



<b>Box C-2</b>
IF C25a=2, -7, OR -8, GO TO BOX DINTRO. ELSE, GO TO C25b.

PEELS Section C 8-26-03

*C25b. Does (CHILD) actually read the words written in the book, or does (he/she) look at the book and pretend to read? Would you say (he/she)...*

CBRDWORD

1. Reads the written words,
2. Pretends to read,
3. Does both, or
4. Does neither?
- 7 REFUSED
- 8. DON'T KNOW



**D. Preschool/School**

**BOX DINTRO**

IF A22=3-6 (CHILD IS IN SCHOOL/KINDERGARTEN), GO TO DKINTRO.  
ELSE, IF A22=1 OR ALL A23 1-6 ≠ 1 (NOT IN SCHOOL), GO TO SECTION E.  
ELSE, GO TO DINTRO.

**VARIABLE NOTE:**  
CHILD= (Child's first name)  
=C\_FNAME (Child's first name on load file)

If more than one of A23 1-6=1, display "programs". Else, display "program".

If A1 = 1, display "him, he, or his."  
Else, display "her, she, or hers."

DINTRO. Now I'm going to ask you some questions about the program(s) that you mentioned {CHILD} attends.

[PRESS ENTER TO CONTINUE.]

**Box D1**

IF A23 = MORE THAN ONE PROGRAM, GO TO D1.  
ELSE, SET TYPEPRG1 = A23 PROGRAM, AND GO TO BOX PRG1.

**VARIABLE NOTE:**  
Only display response options in D1 that were selected in A23.

Do not allow a response of -7 or -8 for TYPEPRG1.

D1. Earlier you told me that {CHILD}...[IF NEEDED: If you aren't sure, make your best guess.]  
TYPEPRG1

- {1. Goes to a Head Start program.}
- {2. Goes to a preschool program in an elementary school.}
- {3. Goes to an early childhood or preschool center, or a nursery school.}
- {4. Goes to a child care center.}
- {5. Receives home-based services.}
- {6. CHCURAOV – VERBATIM OTHER SPECIFY STRING}

In which of these programs does {CHILD} spend the most time?

( )

**Box PRG1**

IF TYPEPRG1 = 1, SET PRG1 = "this Head Start program".  
ELSE, IF TYPEPRG1 = 2, SET PRG1 = "this preschool program".  
ELSE, IF TYPEPRG1 = 3, SET PRG1 = "this center or nursery school program".  
ELSE, IF TYPEPRG1 = 4, SET PRG1 = "this child care center"  
ELSE, IF TYPEPRG1 = 5, SET PRG1 = "these home-based services"  
ELSE, IF TYPEPRG1 = 6, SET PRG1 = CHCURAOV – VERBATIM OTHER SPECIFY STRING

**Box D2**

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IF ONLY ONE A23 1-6 =1, GO TO BOX D3.  
ELSE, GO TO D2.

**PROGRAMMER'S NOTE:**

If A23 = exactly 2 programs,  
autocode D2 to equal the program  
not selected in D1, and go to Box  
PROG2.

**VARIABLE NOTE:**

Only display response options in D2  
that were selected in A23. DO NOT  
DISPLAY THE RESPONSE  
OPTION SELECTED IN D1.

Do not allow a response of -7 or -8  
for TYPEPRG2.

D2. In which of these programs does {CHILD} spend the most time after {PROG1}? [IF NEEDED: If you aren't sure,  
make your best guess.]

TYPEPRG2

( )

- {1. HEAD START PROGRAM}
- {2. PRESCHOOL PROGRAM IN AN ELEMENTARY SCHOOL}
- {3. EARLY CHILDHOOD OR PRESCHOOL CENTER, NURSERY SCHOOL}
- {4. CHILD CARE CENTER}
- {5. HOME-BASED SERVICES}
- {6. CHCURAOV – VERBATIM OTHER SPECIFY STRING}

**Box PROG2**

IF TYPEPRG2 = 1, SET PROG2 = "this Head Start program".  
ELSE, IF TYPEPRG2 = 2, SET PROG2 = "this preschool program".  
ELSE, IF TYPEPRG2 = 3, SET PROG2 = "this center or nursery school program".  
ELSE, IF TYPEPRG2 = 4, SET PROG2 = "this child care center"  
ELSE, IF TYPEPRG2 = 5, SET PROG2 = "these home-based services"  
ELSE, IF TYPEPRG2 = 6, SET PROG2 = CHCURAOV – VERBATIM OTHER SPECIFY STRING

**DINTRO2**

I am going to ask you a series of questions about the programs that {CHILD} currently attends. First I will ask  
questions about the program where {CHILD} spends the most time. Next I will ask the same series of questions  
about the program where {he/she} spends the second most amount of time.

**PROGRAMMER'S NOTE:**

DINTRO2 IS READ IF A23 IS>= 2  
PROGRAMS. IT ONLY APPEARS  
ONCE, BEFORE THE FIRST D3  
TO D18 PROGRAM LOOP.

D3 THROUGH D18 IS A LOOP.  
D3-D18 WILL BE ASKED ONCE IF  
ONLY ONE OF A23 1-6 = 1, OR  
TWICE IF MORE THAN ONE OF  
A23 1-6 = 1.

FOR FIRST ITERATION, SET  
PROG.TYPEPROG = TYPEPRG1.  
FOR SECOND ITERATION, SET  
PROG.TYPEPROG = TYPEPRG2.

**VARIABLE NOTE FOR D3 – D18:**

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IF ONLY ONE A23 1-6 =1, GO TO BOX D3.  
ELSE, GO TO D2.

**PROGRAMMER'S NOTE:**  
If A23 = exactly 2 programs,  
autocode D2 to equal the program  
not selected in D1, and go to Box  
PROG2.

**VARIABLE NOTE:**  
Only display response options in D2  
that were selected in A23. DO NOT  
DISPLAY THE RESPONSE  
OPTION SELECTED IN D1.

Do not allow a response of -7 or -8  
for TYPEPRG2.

D2. In which of these programs does {CHILD} spend the most time after {PROG1}? [IF NEEDED: If you aren't sure,  
make your best guess.]  
TYPEPRG2

( )

- {1. HEAD START PROGRAM}
- {2. PRESCHOOL PROGRAM IN AN ELEMENTARY SCHOOL}
- {3. EARLY CHILDHOOD OR PRESCHOOL CENTER, NURSERY SCHOOL}
- {4. CHILD CARE CENTER}
- {5. HOME-BASED SERVICES}
- {6. CHCURAOV – VERBATIM OTHER SPECIFY STRING}

**Box PROG2**

IF TYPEPRG2 = 1, SET PROG2 = "this Head Start program".  
ELSE, IF TYPEPRG2 = 2, SET PROG2 = "this preschool program".  
ELSE, IF TYPEPRG2 = 3, SET PROG2 = "this center or nursery school program".  
ELSE, IF TYPEPRG2 = 4, SET PROG2 = "this child care center"  
ELSE, IF TYPEPRG2 = 5, SET PROG2 = "these home-based services"  
ELSE, IF TYPEPRG2 = 6, SET PROG2 = CHCURAOV – VERBATIM OTHER SPECIFY STRING

**DINTRO2**

I am going to ask you a series of questions about the programs that {CHILD} currently attends. First I will ask  
questions about the program where {CHILD} spends the most time. Next I will ask the same series of questions  
about the program where {he/she} spends the second most amount of time.

**PROGRAMMER'S NOTE:**  
DINTRO2 IS READ IF A23 IS >= 2  
PROGRAMS. IT ONLY APPEARS  
ONCE, BEFORE THE FIRST D3  
TO D18 PROGRAM LOOP.

D3 THROUGH D18 IS A LOOP.  
D3-D18 WILL BE ASKED ONCE IF  
ONLY ONE OF A23 1-6 = 1, OR  
TWICE IF MORE THAN ONE OF  
A23 1-6 = 1.

FOR FIRST ITERATION, SET  
PROG.TYPEPROG = TYPEPRG1.  
FOR SECOND ITERATION, SET  
PROG.TYPEPROG = TYPEPRG2.

**VARIABLE NOTE FOR D3 – D18:**

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DAYSNUM

\_\_\_\_\_ [S: 1-5] [H: 1-7]  
NUMBER

- 7. REFUSED
- 8. DON'T KNOW



VARIABLE NOTE:  
If PROG.TYPEPROG = 5 (HOME-  
BASED SERVICES), display  
"receive". Else, display "go to".

D8. How many hours each week does {he/she} {go to/receive} {PROG1/PROG2}?  
HOURNUM

\_\_\_\_\_ [S: 1-50] [H: 1-80]  
NUMBER

- 7. REFUSED
- 8. DON'T KNOW



VARIABLE NOTE:  
If PROG.TYPEPROG = 5 (HOME-  
BASED SERVICES), display  
"receiving". Else, display "going to".

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PROG

D9. Approximately when did (he/she) start (going to/receiving) (PROG1/PROG2)?

WHENSTRT

( )

- 1. DATE.....(GO TO D9OV1)
- 2. AGE.....(GO TO D9OV2)
- 7. REFUSED
- 8. DON'T KNOW

D9OV1

MNTHSTRT

\_\_\_\_\_ [H: 1-12] [DATE MUST BE ≥ ST\_BIRTH AND ≤ TODAY'S DATE]

MONTH

- |             |              |
|-------------|--------------|
| 1. JANUARY  | 7. JULY      |
| 2. FEBRUARY | 8. AUGUST    |
| 3. MARCH    | 9. SEPTEMBER |
| 4. APRIL    | 10. OCTOBER  |
| 5. MAY      | 11. NOVEMBER |
| 6. JUNE     | 12. DECEMBER |

YRSTART

\_\_\_\_\_ [H: 1998-2004] [DATE MUST BE ≥ ST\_BIRTH AND ≤ TODAY'S DATE]

YEAR

OR

D9OV2

AGESTRT

\_\_\_\_\_ [H:0-5] [AGESTRT MUST BE ≤ CURAGE]

NUMBER

D10. Does your family pay a fee for (CHILD) to participate in (PROG1/PROG2)?

FEEPROG

( )

- 1. YES.....(GO TO D11)
- 2. NO.....(GO TO BOX D12)
- 7. REFUSED.....(GO TO BOX D12)
- 8. DON'T KNOW.....(GO TO BOX D12)

**PROGRAMMER'S NOTE:**

-7 and -8 are not valid response options for FEENUM.

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PROG

D11. What is the fee?

FEEAMT

( )

- 1. PER DAY .....(GO TO D110V)
- 2. PER WEEK .....(GO TO D110V)
- 3. PER MONTH .....(GO TO D110V)
- 7. REFUSED .....(GO TO BOX D12)
- 8. DON'T KNOW .....(GO TO BOX D12)

D110V.  
FEENUM

\_\_\_\_\_ [DAY – H:0-300] [WEEK – H: 0-1500] [MONTH – H: 0-6000]

NUMBER

\_\_\_\_\_

**Box D12**

IF PROG.TYPEPROG = 5 (HOME-SCHOOLED), GO TO D18.  
ELSE, GO TO D12.

**PROGRAMMER'S NOTE:**  
-7 and -8 are not valid response options for DISTNUM.

D12. About how far would you say it is from your home to {PROG1/PROG2} {CHILD} attends?

DISTPROG

( )

- 1. MILES .....(GO TO D120V)
- 2. BLOCKS .....(GO TO D120V)
- 3. MINUTES .....(GO TO D120V)
- 7. REFUSED .....(GO TO D13)
- 8. DON'T KNOW .....(GO TO D13)

D120V.  
DISTNUM

\_\_\_\_\_ [MILES – H: 0-100] [BLOCKS – H: 0-30] [MINUTES – H: 0-120]

NUMBER

\_\_\_\_\_

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PROG

D13. How does {CHILD} get to and from {PROG1/PROG2}?

[CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

- |                      |  |
|----------------------|--|
| FAMDRVS              | 1. FAMILY MEMBER DRIVES CHILD IN CAR                                       |
| OTHFAM               | 2. RIDES WITH OTHER FAMILIES   |
| PROGBUS              | 3. PROGRAM HAS A CAR, TAXI, VAN, OR BUS COME FOR CHILD OR BRING CHILD HOME |
| PUBLICBUS            | 4. PUBLIC BUS OR TRANSIT   |
| TAXI                 | 5. TAXI  |
| WALKS                | 6. WALKS, WHEELCHAIR, OR STROLLER  |
| TRANSOTR/<br>TRANSOS | 91. OTHER (SPECIFY): _____   |
|                      | -7. REFUSED  |
|                      | -8. DON'T KNOW   |



Box D14

IF D13=4 OR 5, GO TO D14.  
ELSE, GO TO BOX D15.

D14. Is your family reimbursed for transportation expenses to or from {PROG1/PROG2}?

FEEREIMB

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW



Box D15

IF D13=3, GO TO D15.  
ELSE, GO TO D16.

D15. Does your family pay to have {him/her} picked up or brought home?

PAYPCKUP

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW



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PROG

D16. How many other children is {CHILD} usually with in {his/her} group or class when {he/she} is in {PROG1/PROG2}?  
[IF CHILD IS IN MORE THAN ONE CLASS IN THE PROGRAM, PROBE FOR THE CLASS WHERE CHILD SPENDS THE MOST TIME]  
CHILDNUM

\_\_\_\_\_ [S: 1-30] [H: 0-80]  
NUMBER

- 7. REFUSED
- 8. DON'T KNOW

**Box D17**

IF D16=0 (NO OTHER CHILDREN IN PROGRAM), GO TO D18.  
ELSE, GO TO D17.

D17. How many of the children in {PROG1/PROG2} have special needs or disabilities? Is it...  
NUMSPNDS

( )

- 1. All of them,
- 2. Most of them,
- 3. Some of them, or
- 4. None of them?
- 7. REFUSED
- 8. DON'T KNOW

VARIABLE NOTE:  
If PROG.TYPEPROG = 5 (HOME-BASED SERVICES), display "with {CHILD}". Else, display "in {CHILD}'s classroom or group".

D18. How many adults are usually instructing or assisting in some way (in {CHILD}'s classroom or group/with {CHILD}) in {PROG1/PROG2}?  
ASSTNUM

\_\_\_\_\_ [S: 1-10] [H: 1-20]  
NUMBER

- 7. REFUSED
- 8. DON'T KNOW

**VARIABLE NOTE:**  
If CHIL.TYPEPRG1 = 5 (HOME-BASED SERVICES), display "where {CHILD}'s service provider is based?"  
Else, display "{CHILD} attends now?"

D21. What is the full name of the school or program {{CHILD} attends now/where {CHILD}'s service provider is based?} [NOTE: IF CHILD HAS BEEN ENROLLED IN MORE THAN ONE SCHOOL/PROGRAM DURING THIS SCHOOL YEAR, ASK FOR THE MOST RECENT OR CURRENT ENROLLMENT.]

DSCLNAME

NAME \_\_\_\_\_

- 7. REFUSED
- 8. DON'T KNOW



D22. Where is that located? [NOTE: IF STREET ADDRESS IS UNKNOWN, GET CITY, STATE, AND AS MUCH OF THE STREET ADDRESS AS POSSIBLE.]

DSCLADDR  
ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

DSCLCITY  
CITY: \_\_\_\_\_  
\_\_\_\_\_

DSCLSTAT    STATE: \_\_\_\_\_

- 7. REFUSED
- 8. DON'T KNOW



D23. What is the phone number of the school?

PHONE: ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_  
                  DSCLAREA    DSCLEXCH    DSCLOCL

- 7. REFUSED
- 8. DON'T KNOW



**BOX D2NDPROG**  
IF ONLY ONE OF A23 1-6 = 1 OR THIS IS THE END OF THE SECOND ITERATION OF D3-D18, GO TO BOX D24.  
ELSE, GO TO D2NDPROG.

PROG

**PROGRAMMER'S NOTE:**

TCHINFO = 1 IF C\_ATTEND = 5  
OR ((ANY OF TCHLNAME,  
TCHSNAME, TCHSCITY,  
TCHSSTAT = -1) AND (ANY OF  
SSPLNAME, SSPNAME,  
SSPSCITY, SSPSTAT = -1)).  
ELSE, TCHINFO = -1.

NOTE: THIS VARIABLE WILL BE  
SET BY DATA MANAGEMENT  
AND ONLY ONE VARIABLE –  
TCHINFO – WILL BE PRE-  
LOADED.

**Box D19**

IF THIS IS THE END OF THE SECOND ITERATION OF D3-D18, GO TO BOX D2NDPROG.  
ELSE, IF TCHINFO = 1, GO TO D19.  
ELSE, GO TO BOX D2NDPROG.

**VARIABLE NOTE:**

If PROG.TYPEPROG = 5 (HOME-  
BASED SERVICES), display "with  
these services" and "with {CHILD}".  
Else, display "in this program" and  
"in this program".

D19. The study is interested in learning how the children we are following are doing (in this program/with these services). We would like to send {CHILD}'s service provider a questionnaire that asks about some of the things the service provider is doing (in this program/with {CHILD}).

[PRESS ENTER TO CONTINUE.]

CHIL

D20. What is the name of {CHILD}'s teacher or service provider? [NOTE: IF CHILD HAS MORE THAN ONE TEACHER/SERVICE PROVIDER, ASK FOR THE TEACHER THAT KNOWS THE CHILD BEST.]  
DTCHNAME

NAME

- 7. REFUSED
- 8. DON'T KNOW

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*D2NDPROG*

Now, I'd like to ask you about the program in which {CHILD} spends the **second most** time.

[PRESS ENTER TO CONTINUE.]

(GO TO BOX D3 AND EXECUTE SECOND ITERATION OF D3 THROUGH D18)

**Box D24**

IF EITHER D16 > 0 (OTHER CHILDREN IN PROGRAM) OR EITHER D16 = -7 OR -8, GO TO D24.  
ELSE, GO TO D25.

**VARIABLE NOTE:**

If more than one of A23 1-6=1,  
display "programs". Else, display  
"program".

D24. Thinking about the program(s) your child is in, how well would you say {CHILD} gets along with other children at {his/her} program(s)? Would you say...

SEGTALCH

( )

1. Very well,
2. Pretty well,
3. Not very well, or
4. Not at all well?
5. MIXED - SOME WELL, SOME NOT
6. DOES NOT INTERACT WITH OTHER CHILDREN
- 7. REFUSED
- 8. DON'T KNOW

D25. How well would you say {he/she} gets along with teachers? Would you say...

SEGTALTE

( )

1. Very well,
2. Pretty well,
3. Not very well, or
4. Not at all well?
5. MIXED - SOME WELL, SOME NOT
6. DOES NOT INTERACT WITH TEACHERS
- 7. REFUSED
- 8. DON'T KNOW

**Box D26**

IF TYPEPRG1 = 5 AND TYPEPRG2 = -1 (HOME-BASED SERVICES ONLY), GO TO BOX D27.  
ELSE, GO TO D26.

**VARIABLE NOTE:**

If CHIL.TYPEPRG1 = 5 (HOME-BASED SERVICES), display "where {CHILD}'s service provider is based?"  
Else, display "{CHILD} attends now?"

D21. What is the full name of the school or program {{CHILD} attends now/where {CHILD}'s service provider is based?} [NOTE: IF CHILD HAS BEEN ENROLLED IN MORE THAN ONE SCHOOL/PROGRAM DURING THIS SCHOOL YEAR, ASK FOR THE MOST RECENT OR CURRENT ENROLLMENT.]

DSCLNAME

NAME \_\_\_\_\_

- 7. REFUSED
- 8. DON'T KNOW

D22. Where is that located? [NOTE: IF STREET ADDRESS IS UNKNOWN, GET CITY, STATE, AND AS MUCH OF THE STREET ADDRESS AS POSSIBLE.]

DSCLADDR

ADDRESS: \_\_\_\_\_

DSCLCITY

CITY: \_\_\_\_\_

DSCLSTAT STATE: \_\_\_\_\_

- 7. REFUSED
- 8. DON'T KNOW

D23. What is the phone number of the school?

PHONE: ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_  
DSCLAREA DSCLEXCH DSCLOCL

- 7. REFUSED
- 8. DON'T KNOW

**BOX D2NDPROG**  
IF ONLY ONE OF A23 1-6 = 1 OR THIS IS THE END OF THE SECOND ITERATION OF D3-D18, GO TO BOX D24.  
ELSE, GO TO D2NDPROG.

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*D2NDPROG*

Now, I'd like to ask you about the program in which {CHILD} spends the **second most** time.

[PRESS ENTER TO CONTINUE.]

(GO TO BOX D3 AND EXECUTE SECOND ITERATION OF D3 THROUGH D18)

**Box D24**

IF EITHER D16 > 0 (OTHER CHILDREN IN PROGRAM) OR EITHER D16 = -7 OR -8, GO TO D24.  
ELSE, GO TO D25.

**VARIABLE NOTE:**

If more than one of A23 1-6=1,  
display "programs". Else, display  
"program".

D24. Thinking about the program(s) your child is in, how well would you say {CHILD} gets along with other children at {his/her} program(s)? Would you say...

SEGTALCH

( )

1. Very well,
2. Pretty well,
3. Not very well, or
4. Not at all well?
5. MIXED - SOME WELL, SOME NOT
6. DOES NOT INTERACT WITH OTHER CHILDREN
- 7. REFUSED
- 8. DON'T KNOW

D25. How well would you say {he/she} gets along with teachers? Would you say...

SEGTALTE

( )

1. Very well,
2. Pretty well,
3. Not very well, or
4. Not at all well?
5. MIXED - SOME WELL, SOME NOT
6. DOES NOT INTERACT WITH TEACHERS
- 7. REFUSED
- 8. DON'T KNOW

**Box D26**

IF TYPEPRG1 = 5 AND TYPEPRG2 = -1 (HOME-BASED SERVICES ONLY), GO TO BOX D27.  
ELSE, GO TO D26.

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**VARIABLE NOTE:**

If more than one of A23 1-6=1, display "programs". Else, display "program".

D26. Has {CHILD} had any of the following things happen to {him/her} at {his/her} program(s)?

[1=YES, 2= NO, -7=REFUSED, -8=DON'T KNOW]

- PSEBULLY** a. Has {he/she} been bullied or picked on by other children? \_\_\_\_\_
- PSEATTCK** b. Has {he/she} been physically attacked or involved in fights? \_\_\_\_\_
- PSETEASE** c. Has {he/she} been teased or called names? \_\_\_\_\_

**Box D27**

IF TYPEPRG1 = 5 AND TYPEPRG2 = -1 (HOME-BASED SERVICES ONLY), SKIP D27a.  
ELSE, DO NOT SKIP.

**VARIABLE NOTE:**

If TYPEPRG2 ≠ -1, display "programs" and "keep". Else, display "program" and "keeps".

IF TYPEPRG1 = 5 AND TYPEPRG2 = -1 (HOME-BASED SERVICES ONLY), display "service provider" and "keeps". Else, use "program" display above.

D27. Thinking about this school year, would you say you are very satisfied, satisfied, dissatisfied, or very dissatisfied with ...

[1=VERY SATISFIED, 2=SATISFIED, 3= DISSATISFIED, 4=VERY DISSATISFIED, 9=DOES NOT APPLY, -7=REFUSED, -8=DON'T KNOW]

- PSESCHL** a. The program(s) {CHILD} attends? \_\_\_\_\_
- PSETCHER** b. The teachers {he/she} has? \_\_\_\_\_
- PSESPED** c. The services {he/she} has received? \_\_\_\_\_
- PSEINFRM** d. How well the {service provider/program(s)} keep(s) you informed about {CHILD}'s behavior and progress? \_\_\_\_\_

**Box D28**

IF TYPEPRG1 = 5 AND TYPEPRG2 = -1 (HOME-BASED SERVICES ONLY), GO TO D31.  
ELSE, IF EITHER D16 > 0 (OTHER CHILDREN IN PROGRAM), GO TO D28.  
ELSE, GO TO D29.

**VARIABLE NOTE:**

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Box D30  
 IF EITHER D16 > 0 (OTHER CHILDREN IN PROGRAM), GO TO D30.  
 ELSE, GO TO D31.

**VARIABLE NOTE:**  
 If more than one of A23 1-6=1, display "programs". Else, display "program".

D30. About how many parents of children in {CHILD}'s program(s) do you talk with regularly, either in person or on the phone?  
 REGTALK

\_\_\_\_\_ [S: 0-10] [H: 0-20]

NUMBER

- 7. REFUSED
- 8. DON'T KNOW



**VARIABLE NOTE:**  
 If any item D31 a-c = 1 (YES), display "How many times did that happen? Would you say 1-2 times, or 3 or more times?" and capture response in column 2. Else, do not display and move to next sub-item.

If TYPEPRG2 ≠ -1, display "programs have" and "programs". Else, display "program has" and "program".

IF TYPEPRG1 = 5 AND TYPEPRG2 = -1 (HOME-BASED SERVICES ONLY), display "service providers". Else, display "teachers" and "or someone else from {his/her} program(s)".

D31. We're also interested in the times your child's {program has/programs have} contacted you without your having contacted them first. In the past three months, have any of {CHILD}'s {service providers/teachers} {or someone else from {his/her} program(s)}...

Column1: [ 1=YES, 2= NO]

Column 2: {How many times did that happen? Would you say 1-2 times, or 3 or more times?}  
 [1= 1-2 TIMES, 2=3+TIMES, -7=REFUSED, -8=DON'T KNOW]

		COL 1 EVENT	COL 2 HOW OFTEN
PCNTNT	a. Sent your family personal notes?	_____	_____PCNTNTFQ
PCNTAL	b. Provided newsletters, memos, or notices addressed to all parents?	_____	_____PCNTALFQ

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If more than one of A23 1-6=1, display "programs". Else, display "program".

D28. How would you rate the amount of time {CHILD} spends with typically developing children in {his/her} program(s)? Does {he/she} spend...

SPNDTYP

( )

1. Too much time with typically developing children,
2. About the right amount of time, or
3. Not enough time?
9. DOES NOT APPLY
- 7. REFUSED
- 8. DON'T KNOW

**VARIABLE NOTE:**

If more than one of A23 1-6=1, display "programs". Else, display "program".

D29. Since the beginning of the school year, have you or another adult in the household done the following at {CHILD}'s program(s)? [NOTE: CAN ALSO INCLUDE VISITS TO THE SCHOOL/PROGRAM SITE FOR OTHER CHILDREN IN THE FAMILY.]

[1=YES, 2= NO, -7=REFUSED, -8=DON'T KNOW]

PATNDMT a. Attended a general school or program meeting, for example, back to school night, or a meeting of a parent-teacher organization? \_\_\_\_\_

PATNDSE b. Attended a school or class event, such as a play, sports event, or science fair? \_\_\_\_\_

PATNDVL c. Volunteered in {CHILD}'s classroom for at least 30 minutes? \_\_\_\_\_

PATNDTRP d. Helped with field trips or other special events? \_\_\_\_\_

PATNPTC e. Attended parent-teacher conferences? \_\_\_\_\_

PATNPOL f. Participated in Policy Council, monitoring- related activities, or other school or program planning groups? \_\_\_\_\_

PATNFND g. Participated in fundraising activities? \_\_\_\_\_

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Box D30  
 IF EITHER D16 > 0 (OTHER CHILDREN IN PROGRAM), GO TO D30.  
 ELSE, GO TO D31.

**VARIABLE NOTE:**  
 If more than one of A23 1-6=1, display "programs". Else, display "program".

D30. About how many parents of children in {CHILD}'s program(s) do you talk with regularly, either in person or on the phone?  
 REGTALK

\_\_\_\_\_ [S: 0-10] [H: 0-20]

NUMBER

- 7. REFUSED
- 8. DON'T KNOW



**VARIABLE NOTE:**  
 If any item D31 a-c = 1 (YES), display "How many times did that happen? Would you say 1-2 times, or 3 or more times?" and capture response in column 2. Else, do not display and move to next sub-item.

If TYPEPRG2 ≠ -1, display "programs have" and "programs". Else, display "program has" and "program".

IF TYPEPRG1 = 5 AND TYPEPRG2 = -1 (HOME-BASED SERVICES ONLY), display "service providers". Else, display "teachers" and "or someone else from {his/her} program(s)".

D31. We're also interested in the times your child's {program has/programs have} contacted you without your having contacted them first. In the past three months, have any of {CHILD}'s {service providers/teachers} {or someone else from {his/her} program(s)}...

Column1: [ 1=YES, 2= NO]

Column 2: {How many times did that happen? Would you say 1-2 times, or 3 or more times?}  
 [1= 1-2 TIMES, 2=3+TIMES, -7=REFUSED, -8=DON'T KNOW]

		COL 1 EVENT		COL 2 HOW OFTEN
PCNTNT	a. Sent your family personal notes?	_____		_____PCNTNTFQ
PCNTAL	b. Provided newsletters, memos, or notices addressed to all parents?	_____		_____PCNTALFQ

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PCNTCL c. Called you on the phone? \_\_\_\_\_ PCNTCLFQ

D32a. Do you think {CHILD} will be attending school next year?  
PNXTYNH

1. YES
2. NO
3. HOME-SCHOOLED
- 7. REFUSED
- 8. DON'T KNOW

Box D32b

IF D32a = 2 OR 3 (NO SCHOOL NEXT YEAR OR HOME-SCHOOLED), GO TO BOX DKINTRO.  
ELSE, GO TO D32b.

D32b. What is the full name of the school or program you think {CHILD} will be attending next year? [NOTE: PROBE FOR FULL NAME OF SCHOOL.]  
PNXTSCHY

NAME

- 7. REFUSED
- 8. DON'T KNOW

D33. Where is that located? [NOTE: IF STREET ADDRESS IS UNKNOWN, GET CITY, STATE, AND AS MUCH OF THE STREET ADDRESS AS POSSIBLE.]

PSCHADD

ADDRESS: \_\_\_\_\_

PSCHCITY

CITY: \_\_\_\_\_

PSCHSTAT

STATE: \_\_\_\_\_

- 7. REFUSED
- 8. DON'T KNOW

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**Box DKINTRO**

GO TO SECTION E.

**DKINTRO**

Now I am going to ask you some questions about {CHILD}'s school.

[PRESS ENTER TO CONTINUE.]

**DK1. Does {CHILD} attend a public or private school?**

**KPUBPRVT**

( )

- 1. PUBLIC .....(GO TO BOX DK3)
- 2. PRIVATE .....(GO TO DK2)
- 3. HOME-SCHOOLED .....(GO TO DK22)
- 7. REFUSED .....(GO TO DK2)
- 8. DON'T KNOW .....(GO TO DK2)

**DK2. Is {CHILD}'s school related to a church or other religious organization?**

**KRELIGS**

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

**Box DK3**

IF Q2GLEVEL=3 (CHILD IN KINDERGARTEN), GO TO DK3.  
ELSE, GO TO DK7.

**DK3. Does {CHILD} go to a full-day or part-day kindergarten?**

**KFULLDAY**

( )

- 1. FULL DAY .....(GO TO DK7)
- 2. PART DAY .....(GO TO DK4)
- 7. REFUSED .....(GO TO DK4)
- 8. DON'T KNOW .....(GO TO DK4)

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DK4. Not counting kindergarten, does (he/she) also routinely attend an enrichment program or similar type of instructional program that provides deeper coverage of school subjects, often for gifted students?

KENRCHMT

( )

- 1. YES .....(GO TO DK5)
- 2. NO .....(GO TO DK7)
- 7. REFUSED .....(GO TO DK7)
- 8. DON'T KNOW .....(GO TO DK7)

DK5. How many different enrichment or instructional programs does (CHILD) go to?

ENRCHNM

\_\_\_\_\_ [S: 1-10] [H: 1-20]

NUMBER

- 7. REFUSED
- 8. DON'T KNOW

Box DK6

IF DK5 = -7 OR -8, GO TO DK7.  
ELSE, GO TO DK6.

VARIABLE NOTE:

If DK5=1, display "this program".  
If DK5>1, display "these programs".

DK6. How many days each week does (he/she) go to (this program/these programs)?

DYWKNUM

\_\_\_\_\_ [S: 1-5][H: 1-7]

NUMBER

- 7. REFUSED
- 8. DON'T KNOW

DK7. Which of the following best describes the school (CHILD) attends? Is it a...

DESCSCHL

( )

- 1. A regular school that serves a wide variety of students,
- 2. A school that serves only students with disabilities,
- 3. A school that specializes in a particular subject area or theme, sometimes called a magnet school,
- 4. A charter school,
- 5. An alternative school, or
- 91. Another kind of school?

DSCSCLOS (Specify): \_\_\_\_\_

- 7. REFUSED
- 8. DON'T KNOW

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DK8. Does {CHILD} attend the neighborhood school or the same school as the other children in the neighborhood?  
[NOTE: FOR A PUBLIC SCHOOL, NEIGHBORHOOD REFERS TO THE SCHOOL THE CHILD WOULD ATTEND  
BASED ON WHERE THEY LIVE, OR THE CLOSEST KINDERGARTEN.]

NBRHDSCL

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

DK9. Is this the first year {CHILD} has attended this school?

FRSTYRAT

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

DK10. Have you met {CHILD}'s teacher yet?

METTCHR

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

**Box DK11**

IF Q2GLEVEL=3 (CHILD IN KINDERGARTEN), GO TO DK11.  
ELSE, GO TO DK16.

DK11. Before school started, did the school do anything to help {CHILD} enter kindergarten, like having visits to the classroom? [NOTE: THIS CAN BE ANYTHING DONE BY THE NEW SCHOOL OR CHILD'S PREVIOUS SCHOOL.]

SEHLPKND

( )

- 1. YES .....(GO TO DK12)
- 2. NO .....(GO TO DK13)
- 7. REFUSED .....(GO TO DK14)
- 8. DON'T KNOW .....(GO TO DK14)

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DK12. Do you think that what the school did to get {him/her} ready for the move to kindergarten was...  
**SEHLPAD**

- ( )
1. More than {he/she} needed, .....(Go to DK14)
  2. Less than {he/she} needed, or .....(Go to DK14)
  3. About right? .....(Go to DK14)
  - 7. REFUSED .....(Go to DK14)
  - 8. DON'T KNOW .....(Go to DK14)
- 

DK13. Do you think the move to kindergarten would have been easier for {him/her} if the school had done something to help {him/her} prepare?  
**SEMOVHLP**

- ( )
1. YES
  2. NO
  - 7. REFUSED
  - 8. DON'T KNOW
- 

DK14. Before school started, did you or another family member do anything on your own about the move into kindergarten, such as going to talk with teachers, or taking {CHILD} to visit the classroom?  
**SEVISIT**

- ( )
1. YES
  2. NO
  - 7. REFUSED
  - 8. DON'T KNOW
- 

DK15. How do you think the transition to kindergarten has gone for {him/her}? Overall, would you say it's been...  
**SETRANS**

- ( )
1. Very easy,
  2. Somewhat easy,
  3. Somewhat hard, or
  4. Very hard?
  - 7. REFUSED
  - 8. DON'T KNOW
-

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DK16. How well would you say {CHILD} gets along with other children at school? Would you say...  
SKGTALCH

( )

1. Very well,
2. Pretty well,
3. Not very well, or
4. Not at all well?
5. MIXED - SOME WELL, SOME NOT
6. DOES NOT INTERACT WITH OTHER CHILDREN
- 7. REFUSED
- 8. DON'T KNOW

DK17. How well would you say {he/she} gets along with teachers? Would you say...  
SKGTALTE

( )

1. Very well,
2. Pretty well,
3. Not very well, or
4. Not at all well?
5. MIXED - SOME WELL, SOME NOT
6. DOES NOT INTERACT WITH TEACHERS
- 7. REFUSED
- 8. DON'T KNOW

Box DK18

IF B4=2 (NO DISABILITIES), GO TO DK19.  
ELSE, GO TO DK18.

DK18. How would you rate the amount of time {CHILD} spends with typically developing children at {his/her} school?  
Does {he/she} spend...

TMTYPCHD

( )

1. Too much time with typically developing children,
2. About the right amount of time, or
3. Not enough time?
9. DOES NOT APPLY
- 7. REFUSED
- 8. DON'T KNOW

DK19. Think about {CHILD}'s experience at {his/her} school since the beginning of this school year. Would you say you strongly agree, agree, disagree, or strongly disagree with each of the following statements?

[1=STRONGLY AGREE, 2= AGREE, 3=DISAGREE, 4=STRONGLY DISAGREE, 9=DOES NOT APPLY,  
-7=REFUSED, -8=DON'T KNOW]

- |          |  |       |
|----------|--|-------|
| SECHALNG | a. {CHILD} is challenged at school.                                    | _____ |
| SEENJOY  | b. {He/She} enjoys school.   | _____ |
| SETDISCP | c. {His/Her} teachers maintain good discipline in the classroom.       | _____ |
| SERESPCT | d. In {his/her} school, most students and teachers respect each other. | _____ |

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- SEPRDIS** e. The principal and assistant principal maintain good discipline at {CHILD}'s school. \_\_\_\_\_
- SEMTNEED** f. The school is good at meeting {his/her} individual needs. \_\_\_\_\_
- 

DK20. Has {CHILD} had any of the following things happen to {him/her} during this school year?

[1=YES, 2= NO, 9=DOES NOT APPLY, -7=REFUSED, -8=DON'T KNOW]

- SESTOLEN** a. Has {he/she} had things stolen from {his/her} desk, or other places at school? \_\_\_\_\_
- SEBULLY** b. Has {he/she} been bullied or picked on by other students or made to do things like give them money, either at school or on the way to or from school? \_\_\_\_\_
- SEATTACK** c. Has {he/she} been physically attacked or involved in fights at school or on the way to or from school? \_\_\_\_\_
- SETEASE** d. Has {he/she} been teased or called names at school? \_\_\_\_\_
- 

DK21. Thinking about this school year so far, would you say you are very satisfied, satisfied, dissatisfied, or very dissatisfied with ...

[1=VERY SATISFIED, 2=SATISFIED, 3=DISSATISFIED, 4=VERY DISSATISFIED, 9=DOES NOT APPLY, -7=REFUSED, -8=DON'T KNOW]

- SESCHOOL** a. The school {CHILD} attends? \_\_\_\_\_
- SETCHER** b. The teachers {he/she} has? \_\_\_\_\_
- SESPED** c. The education {he/she} has received? \_\_\_\_\_
- SEINFORM** d. How well the school keeps you informed about {CHILD}'s behavior and academic performance? \_\_\_\_\_
-

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DK22. How far in school do you expect {CHILD} to go? Would you say you expect {him/her} to...  
FARSCHL

( )

1. Not graduate from high school,
2. Graduate from high school,
3. Attend some college or take post secondary vocational courses,
4. Receive a 2- or 3-year college degree (AA DEGREE) or vocational school diploma,
5. Earn a 4-year college degree (BA, BS DEGREE), or
6. Earn a graduate degree (MA, MBA, Ph.D., JD, MD)?
- 7. REFUSED
- 8. DON'T KNOW

Box DK23

IF DK1=3 (CHILD IS HOME-SCHOOLED), GO TO SECTION E.  
ELSE, GO TO DK23.

DK23. Since the beginning of the school year, have you or another adult in the household done any of the following at {CHILD}'s school? [NOTE: THIS CAN ALSO INCLUDE VISITS TO THE SCHOOL FOR OTHER CHILDREN IN THE FAMILY.]

[1=YES, 2= NO, -7=REFUSED, -8=DON'T KNOW]

- KATNDMT a. Attended a general school meeting, for example, back to school night, or a meeting of a parent-teacher organization? \_\_\_\_\_
- KATNDSE b. Attended a school or class event, such as a play, sports event, or science fair? \_\_\_\_\_
- KATNDVL c. Volunteered in {CHILD}'s classroom for at least 30 minutes? \_\_\_\_\_
- KATNDTRP d. Helped with field trips or other special events? \_\_\_\_\_
- KATNPTC e. Attended parent-teacher conferences? \_\_\_\_\_
- KATNPOL f. Participated in Policy Council, monitoring-related activities, or other school planning groups? \_\_\_\_\_
- KATNFND g. Participated in fundraising activities? \_\_\_\_\_

DK24. About how many parents of children in {CHILD}'s class do you talk with regularly, either in person or on the phone?

KREGTALK

\_\_\_\_\_ [S: 0-10][H: 0-20]

NUMBER

99. DOES NOT APPLY
- 7. REFUSED
- 8. DON'T KNOW

VARIABLE NOTE:

If any item DK25 a-c = 1 (YES), display "How many times did that happen? Would you say 1-2 times, or 3 or more times?" and capture response in column 2. Else, do not

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display and move to next sub-item.

DK25. We're also interested in the times your child's school has contacted you without your having contacted them first. In the past three months, have any of {CHILD}'s teachers or someone else from {his/her} school...

Column1: [ 1=YES, 2= NO]

Column 2: {How many times did that happen? Would you say 1-2 times, or 3 or more times?}

[1= 1-2 TIMES, 2=3+TIMES, -7=REFUSED, -8=DON'T KNOW]

		COL 1 EVENT	COL 2 HOW OFTEN
KCNTNT	a. Sent your family personal notes?	_____	_____ KCNTNTFQ
KCNTAL	b. Provided newsletters, memos, or notices addressed to all parents?	_____	_____ KCNTALFQ
KCNTCL	c. Called you on the phone?	_____	_____ KCNTCLFQ

**PROGRAMMER'S NOTE:**  
 TCHINFO = 1 IF APLYCHIL = 5 OR  
 ((ANY OF TCHLNAME,  
 TCHSNAME, TCHSCITY,  
 TCHSSTAT = -1) AND (ANY OF  
 SSPLNAME, SSPNAME,  
 SSPSCITY, SSPSTAT = -1)).  
 ELSE, TCHINFO = -1.  
  
 NOTE: THIS VARIABLE WILL BE  
 SET BY DATA MANAGEMENT  
 AND ONLY ONE VARIABLE –  
 TCHINFO – WILL BE PRE-  
 LOADED.

Box DK26

IF TCHINFO = 1, GO TO DK26.  
 ELSE, GO TO SECTION E.

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DK26. The study is interested in learning how the children we are following are doing in school. We would like to send {CHILD}'s teacher a questionnaire that asks about some of the things (he/she) is doing in school.

[PRESS ENTER TO CONTINUE.]

DK27. What is the name of {CHILD}'s teacher? [NOTE: IF CHILD HAS MORE THAN ONE TEACHER, ASK FOR THE TEACHER THAT KNOWS THE CHILD BEST.]

DKTCHNAM

NAME

- 7. REFUSED
- 8. DON'T KNOW

DK28. What is the full name of the school {CHILD} attends now? [NOTE: IF CHILD HAS BEEN ENROLLED IN MORE THAN ONE SCHOOL DURING THIS SCHOOL YEAR, ASK FOR THE MOST RECENT OR CURRENT ENROLLMENT.]

DKSCLNAM

NAME

- 7. REFUSED
- 8. DON'T KNOW

DK29. Where is that located? [NOTE: IF STREET ADDRESS IS UNKNOWN, GET CITY, STATE, AND AS MUCH OF THE STREET ADDRESS AS POSSIBLE.]

DKSCLADD

ADDRESS:

DKSCCITY

CITY:

DKSCSTAT STATE:

- 7. REFUSED
- 8. DON'T KNOW

DK30. What is the phone number of the school?

PHONE: ( ) -  
DKSCAREA DKSCEXCH DKSCLOCL

- 7. REFUSED
- 8. DON'T KNOW

Section E – Special Education Services

VARIABLE NOTE:

CHILD= (Child's first name)  
=C\_FNAME (Child's first name on load file)

If A1 = 1, display "him, he, or his."  
Else, display "her, she, or hers."

E1. Now I'd like to ask you about special services your child may be receiving. Within the past two months, did {CHILD} have an IEP or did (he/she) receive special education or other services for a special need or disability, such as speech therapy, physical therapy, or some other help?

EHAVEIEP

( )

- 1. YES ..... (GO TO BOX E-3)
- 2. NO ..... (GO TO E2)
- 7. REFUSED ..... (GO TO E2)
- 8. DON'T KNOW ..... (GO TO E2)

E2. Does {CHILD} now have a 504 plan for classroom accommodations because of (his/her) special needs? [IF NEEDED: By a 504 plan, we mean a documented program of instructional and/or assessment provisions to assist students with special needs who are in a regular education setting, as required by Section 504 of the Vocational Rehabilitation Act.]

EHAVE504

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

**BOX E-3**  
IF Q2GLEVEL = 3, 4, 5, 6, or 7 AND (A23 ≠ 5 AND DK1 ≠ 3) (NOT IN PRESCHOOL AND NOT HOME-SCHOOLED), GO TO E3.  
ELSE, GO TO BOX E-4.

E3. Which of the following best describes where {CHILD} spends (his/her) time at school? Does (he/she)...

ETMEINGE

( )

- 1. Spend the entire time in the general education class working only with the general education teaching staff,
- 2. Spend the entire time in the general education class and specialists come in and work with (him/her) there,
- 3. Spend most of the time in the general education class but is taken out of the classroom to receive some special services,
- 4. Spend some time in the general education class and some time in a special education class for children with special needs, or
- 5. Spend the entire day in a special class for children with special needs?
- 91. OTHER ..... (GO TO E3OV)
- 7. REFUSED
- 8. DON'T KNOW

E3OV. ETIMEOTH (SPECIFY): \_\_\_\_\_

**Box E-4**

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IF ALL A23 ≠ 1 (NOT IN SCHOOL), GO TO BOX E-6.  
 ELSE, IF Q2GLEVEL=2 (IN PRESCHOOL) AND (E1 OR E2 = 1) (HAVE AN IEP OR 504 PLAN), GO TO E4.  
 ELSE, GO TO BOX E-6.

**VARIABLE NOTE:**  
**PROGRAM** = responses from A23.  
 If A23 = only one program, display "that program". Else, display "any of those programs".

E4. Earlier you told me that {CHILD} {PROGRAM} ESERVICES

- {Attends a Head Start program.}
- {Attends a preschool program in an elementary school.}
- {Attends an early childhood or preschool center, or a nursery school.}
- {Attends a child care center.}
- {Receives home-based services.}
- {CHCURAOV – VERBATIM OTHER SPECIFY STRING.}

Does {he/she} receive special education or special services in {that program/any of those programs}?

- 1. YES ..... (GO TO E5)
- 2. NO ..... (GO TO INTROE1)
- 7. REFUSED ..... (GO TO INTROE1)
- 8. DON'T KNOW ..... (GO TO INTROE1)

E5. I am going to ask you some questions about how {CHILD} receives special education and other special services.

[1= YES, 2 = NO, -7 = REFUSED, -8 = DON'T KNOW]

- ESPWTC a. Does a specialist meet with {CHILD}'s teacher or child care provider to show the teacher how to work with {him/her}? \_\_\_\_\_
- ESPINCLS b. Does a specialist come to the program and provide services to {CHILD} in the classroom? \_\_\_\_\_
- ESPOUTCL c. Does a specialist come to the program and take {CHILD} out of class to provide special services? \_\_\_\_\_
- ECLINIC d. Does your family take {CHILD} to a school or a clinic for special services? \_\_\_\_\_
- ESPHOME e. Does a specialist come to {CHILD}'s home to work with {him/her} or a family member? \_\_\_\_\_
- ESPSITTR f. Does a specialist go to {CHILD}'s babysitter's home to work with {him/her} or the babysitter? \_\_\_\_\_
- EOTHRWY g. Is there any other way that {CHILD} receives services? \_\_\_\_\_  
 EWAYROS (SPECIFY): \_\_\_\_\_

*Box E-6*  
 IF ((Q2GLEVEL=2 AND (E1 ≠ 1 AND E2 ≠ 1)) OR A23=5 (PRESCHOOLERS WITHOUT IEP OR 504 OR HOME-SCHOOLED) AND ALL OF E5=1), GO TO E6.  
 ELSE, GO TO INTROE1.

E6. I am going to ask you some questions about how {CHILD} receives special education and other special services.

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[1= YES, 2 = NO, 9 = DOES NOT APPLY, -7 = REFUSED, -8 = DON'T KNOW]

- E6CLINIC** a. Does your family take {CHILD} to a school or a clinic for special services? \_\_\_\_\_
- E6SPHOME** b. Does a specialist come to {CHILD}'s home to work with {him/her} or a family member? \_\_\_\_\_
- E6SPSITR** c. Does a specialist go to {CHILD}'s babysitter's home to work with {him/her} or the babysitter? \_\_\_\_\_
- E6OTRWY** d. Is there any other way that {CHILD} receives services? \_\_\_\_\_
- E6WAYROS** (SPECIFY): \_\_\_\_\_

E6a4. Last summer, did {CHILD} receive any special education services either through a public agency or that your family arranged privately?

**ESUMSRV**

( )

1. YES
2. NO
- 7. REFUSED
- 8. DON'T KNOW

**INTROE1**

My next set of questions refer only to the services {CHILD} is receiving through the public schools.

[PRESS ENTER TO CONTINUE.]

PEELS Section E 8-25-03

E7. Does {CHILD} get any of {his/her} special education or therapy services through the public schools? [IF NEEDED: "Through the public schools" includes services in the public schools as well as services arranged or paid for by the public school system.]

ETHRUSCH

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

*BOX E-7*  
IF E7 = 2 (NO SERVICES THROUGH THE PUBLIC SCHOOLS), GO TO E18A.  
ELSE, GO TO E8.

E8. I'm going to read a list of services. For each service, please tell me if {CHILD} has received this service provided through the public schools within the last two months.

[1= YES, 2 = NO, -7 = REFUSED, -8 = DON'T KNOW]

- |          |   |       |
|----------|---|-------|
| ESPCHTX  | a. Speech or language therapy?  | _____ |
| EOCCUPTX | b. Occupational therapy?  | _____ |
| EPHYSTX  | c. Physical therapy?  | _____ |
| ESEINSCL | d. Special education or instruction in school<br>[IF NEEDED: extra help, an aide, special program]? | _____ |
| ETUTORNG | e. Tutoring or help for learning problems?  | _____ |

E9a. Is {CHILD} receiving any other services provided through the public schools?  
E0THSRVC

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

*BOX E-8*  
IF E9A = 1, GO TO E9b.  
ELSE, GO TO E17A.

E9b. What other services is {CHILD} receiving?  
[CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

- |          |  |
|----------|--|
| EAUDIOSV | 1. AUDIOLOGICAL SERVICES   |
| EAUDIOTX | 2. AUDITORY INTEGRATION THERAPY  |
| EBEHAVTX | 3. BEHAVIOR THERAPY (APPLIED BEHAVIOR ANALYSIS (ABA),<br>..... LOVAAS) |
| EFEEDING | 4. FEEDING RELATED SERVICES (NUTRITION, DIETICIAN)                     |
| EMUSICTX | 5. MUSIC OR ART THERAPY  |
| ENURSING | 6. NURSING   |
| EPLAYTX  | 7. PLAY THERAPY OR PLAY GROUP  |
| EPSCYHTX | 8. PSYCHOLOGICAL THERAPY/MENTAL HEALTH/SOCIAL WORK                     |
| ERESPITE | 9. RESPITE CARE  |
| ESENSORY | 10. SENSORY INTEGRATION THERAPY  |
| ETRANSPT | 11. TRANSPORTATION   |
| EVISION  | 12. VISION SERVICES  |
| ESVCSOTH | 91. OTHER  |

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-8. DON'T KNOW

BOX E-12

IF E18A=1, GO TO E18B.  
IF E18A=2 AND E7=2 (NO SERVICES THROUGH PUBLIC SCHOOLS), GO TO E19A.  
ELSE, GO TO BOX E12A.....

EDIT NOTE:  
Categories indicated as services  
being received in E8 and E9b  
cannot be selected in E18b.

E18b. What therapy or services do you think (he/she) needs, but isn't getting?  
[CODE ALL THAT APPLY. CTRL/P TO EXIT.]

( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

- |          |     |   |
|----------|-----|---|
| ENDAUDSV | 1.  | AUDIOLOGICAL SERVICES   |
| ENDAUDTX | 2.  | AUDITORY INTEGRATION THERAPY  |
| ENDBEHTX | 3.  | BEHAVIOR THERAPY (APPLIED BEHAVIOR ANALYSIS (ABA),<br>..... LOVAAS)     |
| ENDFEEDG | 4.  | FEEDING RELATED SERVICES (NUTRITION, DIETICIAN)                         |
| ENDMSCTX | 5.  | MUSIC OR ART THERAPY  |
| ENDNURSE | 6.  | NURSING   |
| ENDOCPTX | 7.  | OCCUPATIONAL THERAPY  |
| ENDPHYTX | 8.  | PHYSICAL THERAPY  |
| ENDPLYTX | 9.  | PLAY THERAPY OR PLAY GROUP  |
| ENDPSYCH | 10. | PSYCHOLOGICAL THERAPY/MENTAL HEALTH/SOCIAL WORK                         |
| ENDRSPTX | 11. | RESPIRE CARE  |
| ENDSENS  | 12. | SENSORY INTEGRATION THERAPY   |
| ENDSPINS | 13. | SPECIAL INSTRUCTION IN SCHOOL (EXTRA HELP, AN AIDE, SPECIAL<br>PROGRAM) |
| ENDSPCH  | 14. | SPEECH OR LANGUAGE THERAPY  |
| ENDTRANS | 15. | TRANSPORTATION  |
| ENDTUTOR | 16. | TUTORING OR HELP FOR LEARNING PROBLEMS                                  |
| ENDVISN  | 17. | VISION SERVICES   |

PEELS Section E 8-25-03

- ENDSVOTH 91. OTHER  
ENDSVROS (SPECIFY): \_\_\_\_\_  
ENDSVRO2 (SPECIFY): \_\_\_\_\_  
ENDSVRO3 (SPECIFY): \_\_\_\_\_  
-7. REFUSED  
-8. DON'T KNOW

**BOX E-12A**  
*IF E7=2 (NO SERVICES THROUGH PUBLIC SCHOOLS), GO TO E19A.  
ELSE, GO TO E15.....*

E15. How would you rate the amount of special education and therapy services {CHILD} is getting through the school system? Would you say it is...

- EAMTSRVC ( )
1. More than needed,
  2. About the right amount, or
  3. Less than needed?
  4. ENOUGH OF SOME, BUT NOT OF OTHERS
  - 7. REFUSED
  - 8. DON'T KNOW

E16. How would you rate the general quality of the special education and therapy services {CHILD} is getting through the school system? Would you say it is...

- EQULSRVC ( )
1. Excellent,
  2. Good,
  3. Fair, or
  4. Poor?
  5. MIXED – SOME OK, SOME NOT
  - 7. REFUSED
  - 8. DON'T KNOW

E19a. Overall, how satisfied are you with the special education services available through the public school or agency in your area? Would you say you are...

- ESATISFD ( )
1. Very satisfied,
  2. Satisfied,
  3. Dissatisfied, or
  4. Very dissatisfied?
  - 7. REFUSED
  - 8. DON'T KNOW

**BOX E-10A**  
*IF E7=2 (NO SERVICES THROUGH PUBLIC SCHOOLS), GO TO E20A.  
ELSE, GO TO E10.....*

E10. During the last year, did you or another adult in {CHILD}'s household go to a meeting about an Individualized Education Plan, or IEP, about {CHILD}'s special education program or services? [IF NEEDED: An individualized education program is a written plan that establishes goals for {CHILD} and identifies special education services to help {CHILD} meet those goals.]

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EIEPMTG

( )

1. YES
2. NO
- 7. REFUSED
- 8. DON'T KNOW

---

<i>IF E10 = 1, GO TO E11. ELSE, GO TO E14.</i>	<i>BOX E-9</i>
--	----------------

E11. Who came up with the goals on {his/her} IEP? Was it... [NOTE: IF FAMILY HAD AN ADVOCATE OR CONSULTANT, THIS PERSON IS TO BE CONSIDERED PART OF THE FAMILY.]

EIEPGOAL

( )

1. Mostly your family
2. Mostly teachers and other school staff, or
3. You and the school staff together?
4. DON'T KNOW ABOUT ANY GOALS
- 7. REFUSED
- 8. DON'T KNOW

---

E12. How do you feel about your family's involvement in the decisions about {CHILD}'s IEP? Do you feel you...

EFAMINVL

( )

1. Wanted to be involved more,
2. Were involved about the right amount, or
3. Wanted to be involved less?
4. NO OPINION
- 7. REFUSED
- 8. DON'T KNOW

---

<i>IF E11 = 4, GO TO E14. ELSE, GO TO E13.</i>	<i>BOX E-13</i>
--	-----------------

E13. To what extent do you agree or disagree with this statement: {CHILD}'s IEP goals are challenging and appropriate. Would you say you...

EGOALCHL

( )

1. Strongly agree,
2. Agree,
3. Disagree, or
4. Strongly disagree?
- 7. REFUSED
- 8. DON'T KNOW

---

E14. Do you feel that the education and services that {CHILD} receives are...

EEDSRVCS

( )

1. Highly individualized to {his/her} needs,

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- 2. Somewhat individualized, or
- 3. Not individualized at all?
- 7. REFUSED
- 8. DON'T KNOW

---

E19b. During the past three months, approximately how often have you heard from {CHILD}'s special education teachers or service providers by phone, in person, or in writing? Please do not include discussions at IEP or IFSP meetings.

ECMNICAT

- 1. At least several times a week,
- 2. Several times a month,
- 3. About once a month, or
- 4. Less than once a month?
- 7. REFUSED
- 8. DON'T KNOW

( )

---

E20a. Now I'd like to ask you about any services {CHILD} may be receiving that are not paid for by the public schools. Is {CHILD} receiving any special education or therapy services that are paid for by any other source such as your family, your insurance, or another public program?

EPAIDSRV

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

( )



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**BOX E-14**  
IF E7 = 2 (NO SERVICES THROUGH THE PUBLIC SCHOOLS) AND E20A = 2 (NO SERVICES THROUGH ANOTHER), GO TO SECTION F.  
ELSE, GO TO E22.

**E22.** Now I'm going to read the same statements, **but this time**, please think about the special education teachers, therapists, and other professionals who work **with** {CHILD} this year. For each statement I read, please tell me whether you strongly agree, agree, disagree, or strongly disagree with the statement.

[1=STRONGLY AGREE, 2=AGREE, 3=DISAGREE, 4=STRONGLY DISAGREE, -7=REFUSED, -8=DON'T KNOW]

- ECHDGOOD** a. I have good feelings about the professionals who work with {CHILD} this year. Do you strongly agree, agree, disagree, or strongly disagree that this sounds like you? \_\_\_\_\_
- ECHDRSPT** b. Professionals who work with {CHILD} respect the values and cultural background of my family. \_\_\_\_\_
- ECHDIGNR** c. {CHILD} ignore my opinions. \_\_\_\_\_ Professionals who work with \_\_\_\_\_
- ECHDOPTM** d. Professionals who work with {CHILD} make me feel optimistic and hopeful about {his/her} future. \_\_\_\_\_

**E23.** To what extent do you feel that the professionals providing special education services to {CHILD} try to communicate with you and involve you in {CHILD}'s activities, progress, and related issues?

**EPROCOMM**

( )

1. Not at all,
2. Somewhat, or
3. Extensively?
- 7. REFUSED
- 8. DON'T KNOW

PEELS Section F 8-19-03

Section F – Child Care

VARIABLE NOTE:

CHILD= (student's first name)  
=C\_FNAME (student's first name  
on load file)

If A1 = 1, display "him, he, or his."  
Else, display "her, she, or hers."

INTROF

Next, I'd like to talk with you about the child care arrangements you have for {CHILD}, both this year and last year.

[PRESS ENTER TO CONTINUE.]

BOX F1

IF Q2GLEVE=2 (PRESCHOOL), GO TO F2. ELSE, GO TO F1.

- F1. Is {CHILD} now being regularly cared for by someone other than a parent or guardian? By "regularly," we mean for more than 10 hours a week most weeks. This includes child care while a parent or guardian works or goes to school. [IF NEEDED: Exclude care by a foster parent, a one-on-one aide or nursing care while at school, care when a parent is present, or care in a hospital.]

FREGCARE

( )

1. YES
2. NO
- 7. REFUSED
- 8. DON'T KNOW

BOX F2

IF Q2GLEVE= 1 (NOT IN SCHOOL), GO TO BOX F15.  
ELSE, IF F1 = 1, GO TO F3.  
ELSE, GO TO BOX F15.

VARIABLE NOTE:

PROGRAM = responses from A23.

- F2. Earlier you mentioned that {CHILD} {PROGRAM}

FOTHCARE

{Attends a Head Start program.}  
{Attends a preschool program in an elementary school.}  
{Attends an early childhood or preschool center, or a nursery school.}  
{Attends a child care center.}  
{Receives home-based services.}  
{CHCURAOV – VERBATIM OTHER SPECIFY STRING.}

Is {he/she} in any other arrangement where {he/she} is regularly cared for 10 hours or more a week by someone other than a parent or guardian?

( )

1. YES
2. NO
- 7. REFUSED
- 8. DON'T KNOW

PEELS Section F 8-19-03

**BOX F3**

IF F2 = 1, GO TO F3.  
ELSE, GO TO BOX F15.

F3. How many different child care arrangements is (he/she) in now? [IF NEEDED: Babysitting in someone's home counts as one arrangement.] [NOTE: THIS DOES NOT REFER TO THE PRESCHOOL PROGRAMS PREVIOUSLY DISCUSSED. THIS REFERS TO CHILD CARE ARRANGEMENTS ONLY.]

FDIFCARE

..... NUMBER [S: 1-3] [H: 1-6]

- 7. REFUSED
- 8. DON'T KNOW

**PROGRAMMER'S NOTE:**  
F4 THROUGH F2CARAN IS A LOOP. F4-F11 WILL BE ASKED AT LEAST ONCE IF F3 = -7 OR -8, ONCE ONLY IF F3 = 1, OR TWICE ONLY IF F3 > 1.

**VARIABLE NOTE FOR FIRST ITERATION:**  
If F3 > 1, display "I want to ask you about the two arrangements {CHILD} spends the most time in separately. Let's begin with the arrangement in which (he/she) spends the most time. Is this care in..."  
Else, display "Is this care in..."

**VARIABLE NOTE FOR SECOND ITERATION:**  
If F3 > 1 the second time this series is asked, display "For the arrangement (he/she) spends the second most time, is this care in..."  
Else, display "Is this care in..."

F4. (I want to ask you about the two arrangements {CHILD} spends the most time in separately. Let's begin with the arrangement in which (he/she) spends the most time./Is this care in...) (For the arrangement (he/she) spends the second most time, is this care in.../Is this care in...)

AARG

FCAREIN

( )

- 1. {CHILD}'s home,
- 2. Someone else's home,
- 3. A child care center, or
- 91. Somewhere else? ..... (GO TO FCAREOS)

FCAREOS (SPECIFY):

- 7. REFUSED
- 8. DON'T KNOW

F5. Is this care provided by a relative of {CHILD}'s?

FCARERL

( )

PEELS Section F 8-19-03

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

**BOX F6**  
IF F4 = 1 OR 2 (CHILD CARE ARRANGEMENT IN HOME), GO TO F7.  
ELSE, GO TO F6.

F6. Is this care provided at {CHILD}'s school?  
FCARESC

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

**VARIABLE NOTE:**  
If F4 = 1 or 2 (CHILD CARE ARRANGEMENT IN HOME), display "have this service provided". Else, display "go to this arrangement".

F7. How many days a week does {he/she} go to this arrangement/have this service provided?  
FCAREDY

..... NUMBER [S: 1-5] [H: 1-7]

- 7. REFUSED
- 8. DON'T KNOW

**ARRG**

**VARIABLE NOTE:**  
If first iteration, display "most". Else, display "second most".

F8. How many hours a week is {CHILD} in this arrangement? [IF NEEDED: If {CHILD} is in more than one arrangement, we are looking for the number of hours per week for the arrangement in which {he/she} spends the (most/second most) time.]

FCAREHR

..... NUMBER [S: 1-50] [H: 1-100]

- 7. REFUSED
- 8. DON'T KNOW

F9. How many other children is {CHILD} usually with in {his/her} group when {he/she} is in this arrangement?  
FCHIDRN

..... NUMBER [S: 0-30] [H: 0-80]

- 7. REFUSED
- 8. DON'T KNOW

**BOX F10**  
IF F9 = 0, GO TO F11.  
ELSE, GO TO F10.

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F10. How many of these children have special needs or disabilities? Is it...  
FSPNEED

( )

1. All of them,
2. Most of them,
3. Some of them, or
4. None of them?
- 7. REFUSED
- 8. DON'T KNOW

F11. How many adults are usually present when {CHILD} is in this arrangement?  
FADULTS

..... NUMBER [S: 1-10] [H: 1-20]

- 7. REFUSED
- 8. DON'T KNOW

BOX F12

IF F3 = 1 OR THIS IS THE END OF THE SECOND ITERATION OF F4-F11, GO TO F13.  
ELSE, IF F3 = -7 or -8, GO TO F12.  
ELSE, GO TO BOX F2CARARN.

F12. Is {CHILD} in another care arrangement now?  
FANOTHER

( )

1. YES
2. NO
- 7. REFUSED
- 8. DON'T KNOW

BOX F2CARARN

IF F12 = 1 OR F3 > 1, GO TO F2CARARN.  
ELSE, GO TO F13.

F2CARARN

Now, I'd like to ask you about the child care arrangement that {CHILD} spends the *second most* amount of time.

[PRESS ENTER TO CONTINUE.]

(GO TO F4 AND EXECUTE SECOND ITERATION OF F4 THROUGH F11)

VARIABLE NOTE:

If F3 = 1 or F12 = 2, display  
"arrangement."  
Else, display "arrangements."

F13. Overall, how satisfied are you with the ability of {CHILD}'s child care {arrangement/arrangements} to meet  
{his/her} needs? Would you say you are generally ...  
FSTFDWCC

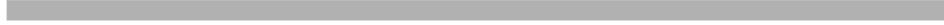
( )

5. Very satisfied,
6. Satisfied,
7. Dissatisfied, or

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- 8. Very dissatisfied?
- 9. MIXED
- 7. REFUSED
- 8. DON'T KNOW



VARIABLE NOTE:  
If F3 = 1 or F12 = 2, display  
"arrangement."  
Else, display "arrangements."

F14. If all child care cost the same as you pay now, would you use the same {arrangement/arrangements} you have now?

FSAMECRE

( )

- 1. YES
- 2. NO
- 3. MIXED
- 7. REFUSED
- 8. DON'T KNOW

*BOX F15*  
IF B4 = 2 (NO DISABILITY OR DELAY), GO TO F16.  
ELSE, GO TO F15.

F15. if {CHILD} did not have a disability or developmental delay, what type of child care arrangement would {he/she} be in? [NOTE: IF CHILD IS NOT IN AN ARRANGEMENT NOW AND WOULD NOT BE REGARDLESS OF THEIR DISABILITY, CODE 9=DOES NOT APPLY.]

FCRNODIS

( )

- 1. {CHILD}'s home,
- 2. Someone else's home,
- 3. A child care center, or
- 91. Somewhere else? ..... (GO TO FCRNDSOS)

FCRNDSOS (SPECIFY): \_\_\_\_\_

- 9. DOES NOT APPLY
- 7. REFUSED
- 8. DON'T KNOW

F16. Let's talk about the preschool or child care arrangement that {CHILD} was in a year ago. A year ago, was {CHILD} being regularly cared for by someone other than a parent or guardian? By "regularly," we mean for more than 10 hours a week most weeks. This includes child care while a parent or guardian works or goes to school. [IF NEEDED: Exclude care by a foster parent, a one-on-one aide or nursing care while at school, care when a parent is present, or care in a hospital.]

FLASTYR

( )

- 1. YES ..... (GO TO BOX F17)
- 2. NO ..... (GO TO SECTION G)
- 7. REFUSED ..... (GO TO SECTION G)
- 8. DON'T KNOW ..... (GO TO SECTION G)

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*BOX F17*

IF F1=2 (NOT IN CHILD CARE NOW) AND F16=1 (WAS IN CHILD CARE A YEAR AGO), GO TO F18.  
ELSE, GO TO F17.

**VARIABLE NOTE:**  
(If Q2GLEVEL = 2) or (A23 = 1, 2, 3, or 6), display "or preschool."  
Else, do not display.

F17. Do you have the same child care (or preschool) for (CHILD) now as you did a year ago?  
**FSMLSTYR**

( )

- 1. YES
- 2. NO
- 7. REFUSED
- 8. DON'T KNOW

*BOX F18*

IF F17 = 1, -7, OR -8, GO TO INTROG.  
ELSE, GO TO F18.

**VARIABLE NOTE:**  
(If Q2GLEVEL = 2) or (A23 = 1, 2, 3, or 6), display "or preschool programs."  
Else, do not display.

F18. How many different child care arrangements (or preschool programs) was (he/she) in a year ago?  
**FDIFLAST**

..... NUMBER [S: 1-3] [H: 1-6]

- 7. REFUSED
- 8. DON'T KNOW

**VARIABLE NOTE:**  
(If Q2GLEVEL = 2) or (A23 = 1, 2, 3, or 6), display "or preschool."  
Else, do not display.

PEELS Section F 8-19-03

F19. What was the total number of days per week that {CHILD} was in child care (or preschool) a year ago?  
FLSTYRDY

..... NUMBER [S: 1-5] [H: 1-7]  
-7. REFUSED  
-8. DON'T KNOW

VARIABLE NOTE:  
(If Q2GLEVEL = 2) or (A23 = 1, 2,  
3, or 6), display "or preschool".  
Else, do not display.

F20. What was the total number of hours per week that {CHILD} was in child care (or preschool) a year ago?  
FLSTYRHR

..... NUMBER [S: 1-50] [H: 1-100]  
-7. REFUSED  
-8. DON'T KNOW

VARIABLE NOTE:  
(If Q2GLEVEL = 2) or (A23 = 1, 2,  
3, or 6), display "or preschool".  
Else, do not display.

F21. Did any of the other children in child care (or preschool) with {CHILD} a year ago have special needs or disabilities? Was it...

FLSTYRSP

( )

1. All of them,
2. Most of them,
3. Some of them, or
4. None of them?
- 7. REFUSED
- 8. DON'T KNOW

APPENDIX I  
DESCRIPTIONS OF ASSESSMENTS USED IN THE PEELS STUDY AND CURRENT  
STUDY

Peabody Picture Vocabulary Test, Third Edition. The Peabody Picture Vocabulary Test, Third Edition (PPVT-III) is a widely used measure of receptive language. Examiners show children a page with four pictures and ask them to point to the picture of the item named by the examiner. Although the PEELS study utilized an adapted version of the PPVT (adapted based on item response theory resulting in all children responding to a core set of items), the standard version of the PPVT-III had high alternate form reliability for the standardized scores (.88 to .96). Split-half reliability coefficients were also high (.86 to .97). Test-retest reliability coefficients were in the .90s (Dunn & Dunn, 1997). PPVT-III scores are significantly correlated with age with the steepest part of the growth curve occurring from 2 ½ years to 12 years.

Woodcock-Johnson III: Letter-Word Identification Subtest. The Woodcock-Johnson III: Letter-Word Identification Subtest requires the examinee to identify letters that appear in large type on the examinee's side of the assessment easel. Later items require examinees to read words aloud. McGrew and Woodcock (2001) reported a .92 one-year test-retest correlation for children ages 4 to 7.

Woodcock-Johnson III: Applied Problems Subtest. The Woodcock-Johnson III: Applied Problems Subtest requires the examinee to analyze and solve math problems. To solve the problems, the examinee listens to the problem, recognizes the procedure to be followed, and then performs relatively simple calculations. Test developers report a one-year test-retest correlation of .92 for children ages 4 to 7.

Woodcock-Johnson III: Quantitative Concepts Subtest. The Woodcock-Johnson III: Quantitative Concepts Subtest measures knowledge of mathematical concepts,

symbols, and vocabulary. The subtest is divided into two parts. Part A, Concepts requires the examinee to count and identify numbers, shapes, and sequences. Part B, Number Series, requires the child to look at a series of numbers, figure out the pattern, and then provide the missing number in the series (McGrew & Woodcock, 2001). This subtest was only administered to children ages 5 and older.

Preschool and Kindergarten Behavior Scales, Second Edition. The Preschool and Kindergarten Behavior Scales, Second Edition (The PKBS-2, Merrell, 2002) is a 76 item rating scale designed to measure both problem behaviors and social skills of children ages 3-6. The PKBS-2 contains two major scales: social skills and social behavior. The social skills scale measures positive social skill characteristics of well-adjusted children and includes 34 items on 3 subscales: Social Cooperation, Social Interaction, and Social Independence. The problem behavior scale measures problem behaviors of young children who are experiencing adjustment problems and includes 42 items on 2 subscales: Externalizing Problems and Internalizing Problems. Reliability studies indicate the PKBS has adequate to strong stability (i.e. test-retest reliability range is 0.62 – 0.87; inter-rater reliability is 0.36 – 0.63). Internal consistency reliability ranges from .96 to .97 for the two scale totals and from .81 to .95 for the subscales.

Social Skills Rating System. The Social Skills Rating System consists of two rating scales to assess social skills and the presence of competing problem behaviors. Items on each scale are rated according to frequency and importance; however, only the frequency rating was included in the PEELS study). The Social Skills Scale assesses positive social behaviors such as cooperation, empathy, assertion, self-control, and responsibility. The Problem Behaviors Scale assesses behaviors that can

interfere with the development of positive social skills (externalizing problems such as aggressive acts, poor temper control), internalizing problems (i.e. sadness, anxiety), and hyperactivity (i.e. fidgeting, impulsive acts).

APPENDIX J  
 PRESCHOOL AND KINDERGARTEN BEHAVIOR SCALES, SECOND EDITION  
 SUMMARY/RESPONSE FORM

Social Skills Scale					Scoring Key		
	Never	Rarely	Sometimes	Often			
1 Works or plays independently	0	1	2	3			
2 Is cooperative	0	1	2	3			
3 Smiles and laughs with other children	0	1	2	3			
4 Plays with several different children	0	1	2	3			
5 Tries to understand another child's behavior ("Why are you crying?")	0	1	2	3			
6 Is accepted and liked by other children	0	1	2	3			
7 Follows instructions from adults	0	1	2	3			
8 Attempts new tasks before asking for help	0	1	2	3			
9 Makes friends easily	0	1	2	3			
10 Shows self-control	0	1	2	3			
11 Is invited by other children to play	0	1	2	3			
12 Uses free time in an acceptable way	0	1	2	3			
13 Is able to separate from parent without extreme distress	0	1	2	3			
14 Participates in family or classroom discussions	0	1	2	3			
15 Asks for help from adults when needed	0	1	2	3			
16 Sits and listens when stories are being read	0	1	2	3			
17 Stands up for other children's rights ("That's his!")	0	1	2	3			
18 Adapts well to different environments	0	1	2	3			
19 Has skills or abilities that are admired by peers	0	1	2	3			
20 Comforts other children who are upset	0	1	2	3			
21 Invites other children to play	0	1	2	3			
22 Cleans up his or her messes when asked	0	1	2	3			
23 Follows rules	0	1	2	3			
24 Seeks comfort from an adult when hurt	0	1	2	3			
25 Shares toys and other belongings	0	1	2	3			
26 Stands up for his or her rights	0	1	2	3			
27 Apologizes for accidental behavior that may upset others	0	1	2	3			
28 Gives in or compromises with peers when appropriate	0	1	2	3			
29 Accepts decisions made by adults	0	1	2	3			
30 Takes turns with toys and other objects	0	1	2	3			
31 Is confident in social situations	0	1	2	3			
32 Responds appropriately when corrected	0	1	2	3			
33 Is sensitive to adult problems ("Are you sad?")	0	1	2	3			
34 Shows affection for other children	0	1	2	3			
Raw Score Totals							
					SC	INT	IND

Social Skills Scale

	Never	Rarely	Sometimes	Often	Scoring Key		
1 Works or plays independently	0	1	2	3			
2 Is cooperative	0	1	2	3			
3 Smiles and laughs with other children	0	1	2	3			
4 Plays with several different children	0	1	2	3			
5 Tries to understand another child's behavior ("Why are you crying?")	0	1	2	3			
6 Is accepted and liked by other children	0	1	2	3			
7 Follows instructions from adults	0	1	2	3			
8 Attempts new tasks before asking for help	0	1	2	3			
9 Makes friends easily	0	1	2	3			
10 Shows self-control	0	1	2	3			
11 Is invited by other children to play	0	1	2	3			
12 Uses free time in an acceptable way	0	1	2	3			
13 Is able to separate from parent without extreme distress	0	1	2	3			
14 Participates in family or classroom discussions	0	1	2	3			
15 Asks for help from adults when needed	0	1	2	3			
16 Sits and listens when stories are being read	0	1	2	3			
17 Stands up for other children's rights ("That's his!")	0	1	2	3			
18 Adapts well to different environments	0	1	2	3			
19 Has skills or abilities that are admired by peers	0	1	2	3			
20 Comforts other children who are upset	0	1	2	3			
21 Invites other children to play	0	1	2	3			
22 Cleans up his or her messes when asked	0	1	2	3			
23 Follows rules	0	1	2	3			
24 Seeks comfort from an adult when hurt	0	1	2	3			
25 Shares toys and other belongings	0	1	2	3			
26 Stands up for his or her rights	0	1	2	3			
27 Apologizes for accidental behavior that may upset others	0	1	2	3			
28 Gives in or compromises with peers when appropriate	0	1	2	3			
29 Accepts decisions made by adults	0	1	2	3			
30 Takes turns with toys and other objects	0	1	2	3			
31 Is confident in social situations	0	1	2	3			
32 Responds appropriately when corrected	0	1	2	3			
33 Is sensitive to adult problems ("Are you sad?")	0	1	2	3			
34 Shows affection for other children	0	1	2	3			
	Raw Score Totals						
					SC	INT	IND

Problem Behavior Scale

	Never	Rarely	Sometimes	Often	Scoring Key	
1. Acts impulsively without thinking	0	1	2	3		
2. Becomes sick when upset or afraid	0	1	2	3		
3. Teases or makes fun of other children	0	1	2	3		
4. Does not respond to affection from others	0	1	2	3		
5. Clings to parent or caregiver	0	1	2	3		
6. Makes noises that annoy others	0	1	2	3		
7. Has temper outbursts or tantrums	0	1	2	3		
8. Wants all the attention	0	1	2	3		
9. Is anxious or tense	0	1	2	3		
10. Will not share	0	1	2	3		
11. Is physically aggressive (hits, kicks, pushes)	0	1	2	3		
12. Avoids playing with other children	0	1	2	3		
13. Yells or screams when angry	0	1	2	3		
14. Takes things away from other children	0	1	2	3		
15. Has difficulty concentrating or staying on task	0	1	2	3		
16. Disobeys rules	0	1	2	3		
17. Has problems making friends	0	1	2	3		
18. Is afraid or fearful	0	1	2	3		
19. Must have his or her own way	0	1	2	3		
20. Is overly active—unable to sit still	0	1	2	3		
21. Seeks revenge against others	0	1	2	3		
22. Defies parent, teacher, or caregiver	0	1	2	3		
23. Complains of aches, pain, or sickness	0	1	2	3		
24. Resists going to preschool or day care	0	1	2	3		
25. Is restless and fidgety	0	1	2	3		
26. Calls people names	0	1	2	3		
27. Is difficult to comfort when upset	0	1	2	3		
28. Withdraws from the company of others	0	1	2	3		
29. Bullies or intimidates other children	0	1	2	3		
30. Seems unhappy or depressed	0	1	2	3		
31. Has unpredictable behavior	0	1	2	3		
32. Is jealous of other children	0	1	2	3		
33. Acts younger than his or her age	0	1	2	3		
34. Destroys things that belong to others	0	1	2	3		
35. Is moody or temperamental	0	1	2	3		
36. Is overly sensitive to criticism or scolding	0	1	2	3		
37. Whines or complains	0	1	2	3		
38. Gets taken advantage of by other children	0	1	2	3		
39. Disrupts ongoing activities	0	1	2	3		
40. Tells lies	0	1	2	3		
41. Is easily provoked—has a "short fuse"	0	1	2	3		
42. Bothers and annoys other children	0	1	2	3		
Raw Score Totals						
					EP	IP

**Section IV. Additional Information**

Please use the following space to provide any additional information about this child that you believe would be useful for understanding his or her behavior.

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**Section V. Score Summary Table**

Norm tables used:  Home Rater  School Rater

PKBS-2 Scales	Raw Score	Standard Score	Percentile Rank	Risk Level (if indicated)	
				Moderate	High
<b>Social Skills Subscale</b>					
Social Cooperation (SC)	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
Social Interaction (INT)	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
Social Independence (IND)	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
<b>Composite Score</b> (sum of subscale standard scores)	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
<b>Composite Standard Score</b>	_____	_____	_____		
<b>Problem Behavior Subscale</b>					
Externalizing Problems (EP)	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
Internalizing Problems (IP)	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
<b>Composite Score</b> (sum of subscale standard scores)	_____	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>
<b>Composite Standard Score</b>	_____	_____	_____		

Higher Social Skills scores indicate greater levels of social adjustment  
 Higher Problem Behavior scores indicate greater levels of problem behavior  
 All standard scores are based on a normative mean of 100 and a standard deviation of 15

## LIST OF REFERENCES

- Achenbach, T.M., McConaughy, S.H., & Howell, C.T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin*, *101* (2), p. 213-232.
- Administration on Children, Youth, and Families (March, 2004). *Head Start Facts*. Washington, DC: Head Start Bureau.
- Alessandri, S.M. (1991). Play and social behavior in maltreated preschoolers. *Development and Psychopathology*, *5*, p. 191-205.
- Alessandri, S.M. (1992). Mother-child interactional correlates of maltreated and nonmaltreated children's play behavior. *Development and Psychopathology*, *4*, p. 257-270.
- Almqvist, L. (2001). *Delaktighet i skolaktiviteter for barn med funktionshinder. (Participation in school activities for children with disability.)* Master's thesis, psychology. Institutionen for Samhalls-och Beteendevetenskap, Malardalens Hogskola.
- American Psychological Association. (2002). Ethical principles of psychologists and code of conduct. Retrieved from <http://apa.org>
- Annually-Updated Dissemination Plan. Retrieved from <http://www.peels.org>
- Arnold, D. H., Ortiz, C., Curry, J. C., Stowe, R. M., Goldstein, N. E., Fisher, P. H., Zeljo, A., & Yershova, K. (1999). Promoting academic success and preventing disruptive behavior disorders through community partnership. *Journal of Community Psychology*, *27*(5), 589-598.
- Axline, V. (1969). *Play therapy*. (rev. ed.). Ballantine: New York, NY.
- Bailey, D.B., Hebbeler, K., Scarborough, A., Spiker, A., & Mallik, S. (2004). First experiences with early intervention: A national perspective. *Pediatrics*, *113*, (4) p. 887-896.
- Barnett, W.S. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children*, *5*(3), p. 25-50.
- Barnett, W.S., & Lamy, C.E. (2006). Estimated impacts of number of years of preschool attendance on vocabulary, literacy, and math skills at kindergarten entry. National Institute for Early Education Research (NIEER): New Brunswick, N.J.
- Baron-Cohen, S. (1987). Autism and symbolic play. *British Journal of Developmental Psychology*, *5*, p. 139-148.

- Beeghly, M., Perry, B.W., & Cicchetti, D. (1989). Structural and affective dimensions of play development in young children with Down Syndrome. *International Journal of Behavioral Development*, 12, p. 257-277.
- Behnke, C. & Menarchek-Fetkovich, M. (1984). Examining the reliability and validity of the play history. *American Journal of Occupational Therapy*, 38, p. 94-100.
- Bickel, D.P., Zigmond, N., & Strayhorn, J. (1991). Chronological age at entrance to first grade: Effects on elementary school success. *Early Childhood Research Quarterly*, 6 (2), p. 105-117.
- Bjorck-Akesson, E., & Granlund, M. (2003). Creating a team around the child through professionals continuing education. In S. Odom, M.J. Hanson, J.A. Blackman, & S. Kaul (Eds.), *Early intervention practices around the world* (p. 171-190). Baltimore: Paul H. Brookes Publishing Co.
- Bjorklund, D.F. (2005). *Children's thinking: Cognitive development and individual differences*, 4<sup>th</sup> ed. Wadsworth/Thomson Learning: Belmont, CA.
- Brooks-Gunn, J., & Lewis, M. (1982). Affective exchanges between normal and handicapped infants and their mothers. In Field, T. & Fogel, A. (Eds.), *Emotion and interaction: Normal and high-risk infants*. Erlbaum, Hillsdale, N.J.
- Bronfenbrenner, U. (1994). Ecological modes of human development. In *International Encyclopedia of Education*, vol. 3, 2<sup>nd</sup> ed. Elsevier: Oxford, England.
- Buss, D.M. (1989). Conflict between the sexes: Strategic interference and the evocation of anger and upset. *Journal of Personality and Social Psychology*, 56, p. 735-747.
- Butler, A.L., Gotts, E.E., & Quisenberry, N.L. (1978). *Play as development*. Merrill: Columbus, OH.
- Buysse, V., Skinner, D., & Grant, S., (2001). Toward a definition of quality inclusion: Perspectives of parents and practitioners. *Topics in Early Childhood Special Education*, 24, 146-161.
- Campbell, D. T., & Stanley, J. C. (1963). *Experimental and Quasi-Experimental Designs for Research*. Rand McNally College Publishing Company: Chicago, IL.
- Carlson, E., Daley, T., Bitterman, A., Riley, J., Keller B., Jenkins, F., & Markowitz, J. (2008). Changes in the characteristics, services, and performance of preschoolers with disabilities from 2003-2004 to 2004-2005. *Wave 2 overview report from the Pre-Elementary Education Longitudinal Study*. Rockville, MD: Westat.

- Carlson, E., Daley, T., Bitterman, A., Heinzen, H., Keller, B., Markowitz, J., and Riley, J. (2009). Early school transitions and the social behavior of children with disabilities: Selected findings from the *Pre-Elementary Education Longitudinal Study*. Rockville, MD: Westat.
- Casby, M.W. (2003). Developmental assessment of play: A model for early intervention. *Communication Disorders Quarterly*, 24(4), 175-183.
- Center for Disease Control. Retrieved from <http://www.cdc.gov/ncbddd/dd/mr3.htm>
- Center for Disease Control. Retrieved from <http://www.cdc.gov/ncbddd/dd/ddcp.htm>
- Chess, S., & Thomas, A. (1984). *Origins and evolution of behavior disorders*. Brunner/Mazel: New York, NY.
- Chess, S., & Thomas, A. (1986). *Temperament in clinical practice*. Guilford Press: New York, NY.
- Chronis, A.M., Jones, H.A., & Raggi, V.L. (2006). Evidence-based psychosocial treatments for children and adolescents with attention-deficit/hyperactivity disorder. *Clinical Psychology Review*, 26 (4), p. 486-502.
- Cicchetti, D., & Cohen, D.J. (1995). (Eds.). *Developmental psychopathology, vol. 1: Theory and methods*. John Wiley & Sons: Oxford, England.
- Cicchetti, D., & Lynch, M. (1995). Failures in the expectable environment and their impact on individual development: The case of child maltreatment. In Cicchetti, D. & Cohen, D.J. (Eds.), *Developmental Psychopathology, Volume 2: Risk, Disorder and Adaptation*, p. 32-71. John Wiley & Sons: New York, NY.
- Clements, M.A., Reynolds, A.J., & Hickey, E. (2004). Site-level predictors of children's school and social competence in the Chicago Child-Parent Centers. *Early Childhood Research Quarterly*, (19), p. 273-296.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 133-159.
- Cole, P.M., Michel, M.K., and Teti, L.O. (1994). The development of emotion regulation and dysregulation: A clinical perspective. *Monographs of the Society for Research in Child Development (Serial No. 240)*, 59, p. 73-102.
- Crowe, B. (1973). *The Playgroup Movement*. Schocken Books: New York, NY.
- Damon, W. & Eisenberg, N. (1998). (Eds.). *Handbook of child psychology, 5th ed.: Vol. 3. Social, emotional, and personality development*. John Wiley & Sons Inc.: Hoboken, NJ.

- Darling-Hammond, L., & Snyder, J. (1992). Framing accountability: Creating learner-centered schools. In A. Lieberman (ed.), *The changing contexts of teaching*. Chicago: University of Chicago Press, p. 11-36.
- Despert, J.L. (1976). *The therapeutic use of child's play*. Jason Aronson, Inc.:
- DiPerna, J. C. & Elliott, S. N. (2000). *The Academic Competence Evaluation Scales (ACES K -12)*. San Antonio, TX: The Psychological Corporation.
- Dobbs, J., Doctoroff, G., Fisher, P., and Arnold, D. (2006). The association between preschool children's socio-emotional functioning and their mathematical skills. *Journal of Applied Developmental Psychology, 27* (2), p. 97-108.
- Doctoroff, G., Greer, J., and Arnold, D. (2006). The relationship between social behavior and emergent literacy among preschool boys and girls. *Journal of Applied Developmental Psychology, 27* (1), p. 1-13.
- Duncan, G.J., Claessens, A., Huston, A.C., Pagani, L.S., Engel, M., Sexton, H., Dowsett, C.J., Magnuson, K., Klebanov, P., Feinstein, L. Brooks-Gunn, J., Duckworth, K., and Japel, C. (2007). School readiness and later achievement. *Developmental Psychology, 43* (6), p. 1428-1446.
- Dunlap, G., Strain, P.S., Fox, L., Carta, J.J., Conroy, M., Smith, B.J., Kern, L., Hemmeter, M.L., Timm, M.A., McCart, A, Sailor, W., Markey, U., Markey, D.J., Lardieri, S., & Sowell, C. (2006). Prevention and intervention with young children's challenging behavior: Perspectives regarding current knowledge. *Behavioral Disorders, 32* (1), p. 29-45.
- Dunn, L.M., and Dunn, L.M. (1997). *Peabody picture vocabulary test-third edition*. Circle Pines, MN: American Guidance Services.
- Ellis, A. (1973). *Humanistic psychotherapy: The rational-emotive approach*. Crown: New York, NY.
- Erikson, E. H. (1972). Play and actuality. In Bruner, J. S., Jolly, A., & Sylva, K. (Eds.). *Play – Its role in development and evolution*. New York, NY: BasicBooks, Inc.
- Erikson, E. (1950). *Childhood and society*. Norton: New York, NY.
- Erikson, E.H. (1963). *Childhood and society (2<sup>nd</sup> ed.)*. Norton: New York, NY.
- Fergusson, D.M., & Horwood, L.J. (2003). Resilience to childhood adversity: Results of a 21-year study. In Luthar, S.S. (Ed.). *Resilience and vulnerability: Adaptation in the context of childhood adversities*. New York, New York: Cambridge University Press.
- Fields, A. (2005). *Discovering Statistics Using SPSS*. London: Sage Publications, p. 571-614.

- First Signs, Inc. Retrieved from <http://www.info@firstsigns.org>
- Fox, L. (2009). Promoting the social competence of young people with disabilities. *Impact: Feature Issue on Early Childhood Education*. Washington, DC: NAEYC.
- Fox, L., Dunlap, G., Hemmeter, M.L., Joseph, G., & Strain, P. (2003). The Teaching Pyramid: A model for supporting social competence and preventing challenging behavior in young children. *Young Children, 58*(4), 48-53.
- Frede, E. & Jacobs, G. (2009, July). *Seeing the learning in play: Using performance-based assessment to document and enhance learning in play*. Paper presented at the meeting of National Association for the Education of Young Children, Charlotte, NC.
- Freud, S. (1950). *Totem and taboo*. W. W. Norton & Co.: New York, NY.
- Freud, S. (1961/1927). The future of an illusion. In standard edition of the *Complete works of Sigmund Freud, vol. 21*, p. 1-56. London: Hogarth & the Institute of Psychoanalysis (Originally published in 1927).
- Freud, A. (1946). *The psychoanalytic treatment of children*. Imago Publishing Co.: Oxford, England.
- Freud, A. (1966). A short history of child analysis. *Psychoanalytic Study of the Child, 21*, p. 7-14.
- Garnezy, N., Masten, A.S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development, 55* (1), p. 97-111.
- Garnezy, N. (1993). Children in poverty: Resilience despite risk. *Psychiatry, 56*, p. 127-136.
- Garvey, C. (1977). *Play*. Cambridge, MA: Harvard University Press.
- Garvey, C. (1990). *Play*. Cambridge, MA: Harvard University Press.
- Ginott, H. (1964). The theory and practice of therapeutic intervention in child treatment. In Haworth, M. (ed.). *Child psychotherapy: Practice and theory*. New York, NY: Basic Books, p. 148-158.
- Gitlin-Weiner, K., Sandgrund, A., & Schaefer, C. (2000). (Eds.) *Play Diagnosis and Assessment, 2<sup>nd</sup> Ed*. New York, NY: John Wiley & Sons, Inc., p. 2-5.
- Goncu, A. (1993). Development of intersubjectivity in social pretend play. *Human Development, 36*, p. 185-198.

- Gresham, F.M., and Elliott, S.N. (1990). *Social skills rating system*. Circle Pines, MN: American Guidance Service.
- Guralnick, M. J. (ed.) (2005). *The Developmental Systems Approach to Early Intervention*. Baltimore, MD: Paul H. Brookes Publishing Co.
- Guralnick, M.J., Hammond, M.A., & Connor, R.T. (2003). Subtypes of nonsocial play: Comparisons between young children with and without developmental delays. *American Journal of Mental Retardation*, 108, p. 347-362.
- Harrison, J., and Oakland, T. (2003). *Adaptive behavior assessment system (2<sup>nd</sup> Edition)*. Harcourt Assessment Company: The Psychological Corporation.
- Haworth, M.R. (1964). *Child psychotherapy, practice, and theory*. New York, NY: Basic Books.
- Haynes, N.M., Comer, J.P., & Hamilton-Lee, M. (1988). The School Development Program: A Model for School Improvement. *The Journal of Negro Education*, 57(1), p. 11-21.
- Hemmeter, M.L., Ostrosky, M., & Fox, L. (2006). Social and emotional foundations for early learning: A conceptual model for intervention. *School Psychology Review*, 35, 583-601.
- Hermelin, B., & O'Connor, N. (1970). *Psychological experiments with autistic children*. Elmsford, N.Y.: Pergamon Press, p. 35.
- Hetherington, E.M. (1992). Effects of divorce on parents and children: Nontraditional families. *Monographs of the Society for Research and Child Development*, 57 (2-3), p. 1-14.
- Hill, P.M., & McCune-Nicolich, L. (1981). Pretend play and patterns of cognition in Down's Syndrome children. *Child Development*, 52, p. 611-617.
- Holmberg, M. (1980). The development of social interchange patterns from 12 to 42 months. *Child Development*, 51(2), p. 448-456.
- Howes, C. (1988). Peer interaction in young children. *Monographs of the Society for Research and Child Development (Serial No. 217)*, 53 (1).
- Howes, C. (1992). *The Collaborative Structure of Pretend*. Albany, NY: State University of New York Press.
- IDEA. Retrieved from <http://www2.ed.gov/policy/speced/leg/idea.pdf>
- Isaacs, S. S. (1939). *Social Development In Young Children: A Study of Beginnings*. Harcourt, Brace & Co.: New York, NY.

- Iwanaga, R., Ozawa, H., Kawasaki, C., and Tsuchida, R. (2006). Characteristics of the sensory-motor, verbal, and cognitive abilities of preschool boys with attention deficit/ hyperactivity disorder combined type. *Psychiatry and Clinical Neurosciences*, 60(1), p. 37- 45.
- Jaffee, S.R. (2007). Sensitive, stimulating caregiving predicts cognitive and behavioral resilience in neurodevelopmentally at-risk infants. *Development and Psychopathology*, 19(3), 631-647.
- Jansson, U. (2002). Aspects of social competence in preschool interaction between children with and without disabilities. In M. Karlsson Lohmander (Ed.), *Social competence and communication*, 4, pp. 97-118. Goteborg, Sweden: Goteborg University, Researching Early Childhood.
- Jansson, U. (2003). *Social processes in pre-school play: Interaction patterns between children with functional differences in inclusive settings*. Presentation at the 2003 ISEI Congress, Rome, Italy, September 17-20, 2003.
- Jitendra, A.K., DuPaul, G.J., Volpe, R.J., Tresco, K.E., Vile Junod, R.E., Lutz, J.G., Cleary, K.S., Flammer-Rivera, L.M. & Mannella, M.C. (2007). Consultation-based academic intervention for children with attention deficit hyperactivity disorder: School functioning outcomes. *School Psychology Review*, 36, 217-236.
- Joyce, D. (2010). *Essentials of Temperament Assessment*. John Wiley & Sons, Inc.: Hoboken, NJ.
- Jung, C. (1928). *Uber de Energetik der Seel*. Baynes, H.G. & Baynes, C.F. (Trans.). On psychic energy. In *On the Nature of the Psyche* (1960), Princeton University Press: London.
- Jung, (1945). *Contributions to analytical psychology*. Baynes, H.G. & Baynes, C.F., (Trans.). Kegan Paul, Trench, Trubner, & Co. (original work published 1928).
- Jureidini, J. (2000). Pathological play. *Clinical Child Psychology and Psychiatry*, 5, p. 606-612.
- Kalil, A., & Kunz, J. (1999). First births among unmarried adolescent girls: Risk and protective factors. *Social Work Research*, 23(3), p. 197-208.
- Kasari, C., Sigman, M.D., & Yirmiya, N. (1992). *Focused and social attention in interactions with familiar and unfamiliar adults: A comparison of autistic, mentally retarded, and normal children*. Unpublished manuscript, University of California, Los Angeles.
- Kaufman, A.S., & Kaufman, N.L. (1985). *Kaufman Test of Educational Achievement*. Circle Pines, MN: American Guidance Service.

- Kaufman, A.S., & Kaufman, N.L. (1990). *Kaufman Brief Intelligence Test*. Circle, Pines, MN: American Guidance Service.
- Kaufman, A.S., & Kaufman, N.L. (1993). *Kaufman Adolescent and Adult Intelligence Test*. Circle Pines, MN: American Guidance Service.
- Kazdin, A.E. (1996). Developing effective treatments for children and adolescents. In Hibbs, E.D. & Jensen, P.S. (Eds.), *Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice*. Washington, DC: American Psychological Association, p. 9-18.
- Kern, L., DuPaul, G.J., Volpe, R.J., Sokol, N.G., Lutz, J.G., Arbolino, L., Pipan, M., & VanBrakle, J.D. (2007). Multisetting assessment-based intervention for young children at risk for attention deficit hyperactivity disorder. Initial effects on academic and behavioral functioning. *School Psychology Review*, 36, 237-255.
- Kershner, J.R. (1990). Self-Concept and IQ as predictors of remedial success in children with learning disabilities. *Journal of Learning Disabilities*, 23(6), p. 368-374.
- Klein, M. (1955). The psychoanalytic play technique. *American Journal of Orthopsychiatry*, 25 (2), p. 223-237.
- Klein, M. (1960). *The psycho-analysis of children*. Grove Press: New York, NY.
- Knox, E. G. (1974). Twins and neural tube defects. *British Journal of Preventive and Social Medicine*, 28, p. 73-80.
- Krakow, J. B., & Kopp, C. B. (1983). The effects of developmental delay on sustained attention in young children. *Child Development*, 54, p.1143-1155.
- Lane, K.L., Barton-Arwood, S.M., Nelson, J.R. and Wehby, J. (2008). Academic performance of students with emotional and behavioral disorders served in a self-contained setting. *Journal of Behavior Education*, 17 (1).
- Lee, H., Carlson, E., Lo, A., Fan, J., Chen, L., & Klein, S. (2004). *Final methodology report*. Rockville, MD: Westat. Retrieved from <http://www.peels.org>
- Linder, T.W. (1993). *Transdisciplinary Play-Based Assessment: A Functional Approach To Working With Young Children (rev. ed.)*. Paul H. Brookes Publishing: Baltimore, MD.
- Luthar, S. S. (1991). Vulnerability and resilience: A study of high-risk adolescents. *Child Development*, 2, p. 600-616.
- Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from successful children. *American Psychologist*, 53, p. 205-220.

- McBride, B.J., & Schwartz, I.S. (2003). Effects of teaching early interventionists to use discrete trials during ongoing classroom activities. *Topics in Early Childhood Special Education, 23*(1), p. 5-17.
- McClelland, M. M., Morrison, F. J., & Holmes, D. L. (2000). Children at risk for early academic problems: The role of learning-related social skills. *Early Childhood Research Quarterly, 15*(3), p. 307-329.
- McCune-Nicolich, L, & Fenson, L. (1984). Methodological issues in studying pretend play. In Yawkey, T.D., & Pellegrini, A. D. (Eds.). *Child's play: Developmental and applied*. Erlbaum: Hillsdale, NJ, p. 81-104. .
- McElreath, L.H. & Eisenstadt, T.H. (1997). Child-Directed interaction family play therapy for developmentally delayed preschoolers. In Schaefer, C. & Carey, L.(Eds.), *Family Play Therapy*. Northvale, NJ: Jason Aronson, Inc.
- McGee, R., Prior, M., Williams, S., Smart, D., & Sanson, A. (2002). The long-term significance of teacher-rated hyperactivity and reading ability in childhood: Findings from two longitudinal studies. *Journal of Child Psychology and Psychiatry, 43*, 1004–1017.
- McGrew, K.S., and Woodcock, R.W. (2001). Technical Manual. *Woodcock-Johnson-III*. Itasca, IL: Riverside Publishing.
- McLoyd, V. (1980). Modes of transformation in the pretend play of black, low-income children. *Child Development, 51*, p. 1133-1139.
- McMahon, L. (1992). *The Handbook of Play Therapy*. New York, NY: Routledge, p. 15-18.
- Merrell, K.W. (2002). *Preschool and Kindergarten Behavior Scales, Second Edition*. Austin, TX: Pro-ed.
- Merrell, K.W. (1993). *School Social Behavior Scales*. Eugene, OR: Assessment-Intervention Resources.
- Moran, P.B., & Eckenrode, J. (1992). Protective personality characteristics among adolescent victims of maltreatment. *Child Abuse & Neglect, 16*(5), p. 743-754.
- Morrison, F.J., Bachman, H.J., & Connor, C.M. (2005). *Improving literacy in America: Guidelines from research*. Yale: University Press.
- Morrison, R.S., Sainato, D.M., Benchaaban, D., and Endo, S. (2002). Increasing play skills of children with autism using activity schedules and correspondence training. *Journal of Early Intervention, 25*(1), 58-72.

- Motti, F., Cicchetti, D., & Sroufe, R. A. (1983). Infant affect expression to symbolic play: The coherence of development in Down Syndrome children. *Child Development*, 54, p. 1168-1175.
- Moustakas, C. (1973). *The child's discovery of himself*. New York: Aronson.
- Mueller, E. & Brenner, J. (1977) The origin of social skills and interaction among playgroup toddlers. *Child Development*, 48 (3), p. 854-861.
- Mundy, P., Sigman, M.D., Ungerer, J.A., & Sherman, T. (1986). Defining the social deficits in autism: The contribution of non-verbal communication measures. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 27, p. 657-669.
- Nash, J.B., & Schaefer, C.E. (2010). Clinical developmental issues in psychotherapy with preschool children: Laying the groundwork for play therapy. In Schaefer, C.E. (Ed.). *Play therapy for preschool children*. Washington, DC: American Psychological Association.
- Nathan, W.A. (1992). Integrated multimodal therapy of children with attention deficit hyperactivity disorder. *Bulletin of the Menninger Clinic*, 56(3), p. 283-312.
- National Association for the Education of Young Children [Online]. Retrieved from <http://www.naeyc.org>
- National Institute for Early Education Research. Retrieved from <http://www.NIEER.org>
- National Research Council Institute of Medicine. (2000). *From neurons to neighborhoods: The science of early development*. Washington, DC: National Academy Press.
- Newcorn, J.H. et al. (2001). Symptom profiles in children with ADHD: Effects of comorbidity and gender. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(2), p. 137-146.
- NICHD-ECCRN (2002). The relation of first grade classroom environment to structural classroom features, teacher, and student behaviors. *The Elementary School Journal*, 102(5), 367-387.
- NICHD-ECCRN (2005). Predicting individual differences in attention, memory, and planning in first graders from experiences at home, child care, and school. *Developmental Psychology*, 41(1), 99-114.
- NICHD-ECCRN (2005). Pathways to reading: The role of oral language in the transition to reading. *Developmental Psychology*, 41(2), 428-442.
- O'Connor, K. (1991). *The play therapy primer: An integration of theories and techniques*. Wiley: New York, NY.

- O'Connor, K., & Ammen, S. (1997). *Play therapy treatment planning and interventions: The ecosystemic model and workbook*. San Diego, CA: Academic Press.
- Ogura, T. (1991). A longitudinal study of the relationship between early language development and play development. *Journal of Child Language*, 18(2), 273-294.
- Oppenheim, J.F. (1984). *Kids and play*. New York, NY: Ballantine Books, p. 135.
- Office of Special Education Programs. (April 1, 2005). [Online]. *Assessment results for preschoolers with disabilities, Wave 1 report*. Retrieved from <http://www.peels.org>
- Parton, M. (1932). Social participation among preschool children. *Journal of Abnormal and Social Psychology*, 27, 243-269.
- PEELS Progress Notes. (August, 2006). Retrieved from <http://www.peels.org>
- Pellar, L. (1964). Developmental phases of play. In Haworth, M.R. (Ed.). *Child psychotherapy: Practice and theory*. Basic Books: New York.
- Piaget, J. (1951). *Play, dreams and imitation in childhood*. Heinemann: London: Heinemann.
- Piaget, J. (1952). *The origins of intelligence in children*. Cook, M. (Trans). W.W. Norton & Co.: New York, NY.
- Piaget, J. (1962). *Play, dreams, and imitation in childhood*. London: Routledge.
- Pianta, R., Paro, L., Payne, K., Cox, C., & Bradley, R.H. (2002). The relation of kindergarten classroom environment to teacher, family, and school characteristics and child outcomes. *Elementary School Journal*, 102(3), 225-238.
- Pithers, W.D. (1990). Relapse prevention with sexual aggressors: A method for maintaining therapeutic gain and enhancing external supervision. In Marshall, W.L., Laws, D.R., & Barbaree, H.E. (Eds.), *The handbook of sexual assault*. Plenum: New York, p. 343-362.
- Preschool and Kindergarten Behavior Scales, Second Edition. In (Eds.) *Mental Measurements Yearbook*. Retrieved from <http://web.ebscohost.com.lp.hscl.ufl.edu>
- Preisler, G., Tvingstedt, A.L., & Ahlstrom, M. (2002). A psychosocial follow-up study of deaf preschool children using cochlear implants. *Child: Care, Health & Development*, 28(5), 403-418.
- PsychCorp. (2005). *Adaptive Behavior Assessment System, Second Edition*, A Technical Report. Author, p. 1-4.

- Rabe, T., Hill, A., & Andersson, B. (2001). Boken om integrering: Ide, teori, praktik. (*The book about integration: Idea, theory, practice*). Lund, Sweden: Studentlitteratur.
- Ramsey, P.H. (1982). Empirical power of procedures for comparing two groups on p variables. *Journal of Educational Statistics*, 7, p. 139-156.
- Raver, C.C. (2003). *Young Children's Emotional Development and School Readiness*. Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.
- Read, R., Gonzalez, J.E., Nordness, P.D., Trout, A., and Epstein, M.H. (2004). A meta-analysis of the academic status of students with emotional/behavioral disturbance. *Journal of Special Education*, 38, p. 130-143.
- Riquet, C.B., Taylor, N.D., Benroya, S., & Klein, L.S. (1981). Symbolic play in autistic, Down's, and normal children of equivalent mental age. *Journal of autism and developmental disorders*, 11, p. 439-448.
- Rogers, J. & Takata, N. (1975). *The play history as assessment tool*. Unpublished manuscript, University of North Carolina at Chapel Hill.
- Rowe, K.J., & Rowe, K.S. (1992). The relationship between inattentiveness in the classroom and reading achievement (Part B): An explanatory study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 357-368.
- Ruskin, E., Mundy, P., Kasari, C., & Sigman, M.D. (1992). *Mastery motivation in children with Down Syndrome*. Unpublished manuscript, University of California, Los Angeles.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. *Annals of the Academy of Medicine of Singapore*, 8(3), p. 324-328.
- Rutter, M. (2006). The promotion of resilience in the face of adversity. In Clarke-Stewart, A. & Dunn, J. (Eds.). *Families Count: Effects on Child and Adolescent Development*. New York, NY: Cambridge University Press, p. 26-52.
- Sameroff, A. (2006). Identifying risk and protective factors for healthy child development. In Clarke-Stewart, A. & Dunn, J. (Eds.). *Families Count: Effects on Child and Adolescent Development*. New York, NY: Cambridge University Press, p. 53-74.
- Sameroff, A.J., Lewis, M., & Miller, S.M. (2000). (Eds.). *The handbook of developmental psychopathology, 2<sup>nd</sup> ed*. New York, NY: Springer Science+Business Media, Inc.
- Sameroff, A. J. & Emde, R. N. (1989). (Eds.). *Relationship Disturbances in Early Childhood: A Developmental Approach*. New York, NY: BasicBooks.

- Sameroff, A.J., Seifer, R., Barocas, R., Zax, M., & Greenspan, S. (1987). Intelligence Quotient scores of 4-year-old children: Social-environmental risk factors. *Pediatrics*, 79, p. 343-350.
- Sameroff, A.J., Seifer, R., & Zax, M. (1982). Early development of children at risk for emotional disorder. *Monographs of the Society for Research in Child Development*, 47 (7), p.1-82.
- Sayal, K. (2006). Annotation: Pathways to care for children with mental health problems. *Journal of Child Psychology & Psychiatry*, 47(7), p. 649-659.
- Sayal, K., Goodman, R., & Ford, T. (2006). Barriers to the identification of children with attention deficit/hyperactivity disorder. *Journal of Child Psychology and Psychiatry* 47(7), p. 744–750.
- Serbin, L.A., Zelkowitz, P., Doyle, A., Gold, D., & Wheaton, B. (1990). The socialization of sex-differentiated skills and academic performance: A mediational model. *Sex Roles*, 23 (11/12), p. 613-628.
- Shoda, Y., Mischel, W., & Peake, P.K. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology*, 26(6), p. 678-986.
- Shonkoff, J., & Phillips, D. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.
- Sigman, M. & Sena, R. (1993). Pretend play in high-risk and developmentally delayed children. In Bornstein, M. H. & O'Reilly, A.W. (Eds.). *The role of play in development of thought*. Josey-Bass Publishers: San Francisco, CA.
- Sigman, M.D., & Ungerer, J.A. (1984). Cognitive and language skills in autistic, mentally retarded, and normal children. *Developmental Psychology*, 20, p. 293-302.
- Sigman, M.D., Mundy, P., Sherman, T., & Ungerer, J. A. (1986). Social interactions of autistic, mentally retarded, and normal children with their caregivers. *Journal of Child Psychology and Psychiatry and Allied Disciplines*. (27), p. 647-656.
- Smilansky, S. (1968). *The effects of sociodramatic play on disadvantaged preschool children*. New York: Academic Press.
- Spira, E.G., & Fischel, J.E. (2005). The impact of preschool inattention, hyperactivity, and impulsivity on social and academic development: a review. *Journal of Child Psychology and Psychiatry* 46(7) p. 755-773.
- Storch, S.A., & Whitehurst, G. (2002). Oral language related precursors to reading: Evidence from a structural model. *Developmental Psychology*, p. 947.

- Strain, P.S., & Hoyson, M. (2000). The need for longitudinal, intensive social skill intervention: LEAP follow-up outcomes for children with autism. *Topics in Early Childhood Special Education, 20*(2), 116-122.
- The Swedish Ministry of Education (Utbildningsdepartementet) (1998). *Latroplan for det obligatoriska skolasystemet, forskoleklassen och fritidshemmet. (Curriculum for the general school system, the preschool class and leisuretime class)*. Fritzes: Stockholm, Sweden.
- Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics 5<sup>th</sup> Ed.*, Pearson Education, Inc.: Boston, MA.
- Takata, N. (1969). The play history. *American Journal of Occupational Therapy, 23*, p. 314-318.
- Thomas, A. (1977). *Temperament and development*. New York: Brunner/Mazel.
- Thomas, A., & Chess, S. (1989). Temperament and personality. In Kohnstramm, G.A., Bates, J.E., & Rothbart, M.K. (Eds.). *Temperament in childhood*. John Wiley & Sons, Ltd.: New York, NY, p. 249-261.
- Thomas, A., Chess, S., & Birch, H.G. (1968). *Temperament and behavior disorders in children*. New York University Press: New York, NY.
- Tilton, J.R., & Ottinger, D.R. (1964). Comparison of toy play behavior of autistic, retarded, and normal children. *Psychological Report, 15*, p. 967-975.
- US Bureau of the Census, (1999). *Statistical Abstract of the United States*. Retrieved from [http://www.census.gov/prod/www/abs/statab2001\\_2005.html](http://www.census.gov/prod/www/abs/statab2001_2005.html)
- US Bureau of the Census, (2000). *Statistical Abstract of the United States*. Retrieved from [http://www.census.gov/prod/www/abs/statab2001\\_2005.html](http://www.census.gov/prod/www/abs/statab2001_2005.html)
- Van de Oord, S., Van der Meulen, E.M., Prins, P.J.M., Oosterlaan, J., Buitelaar, J.K., & Emmelkamp, P.M.G. (2005). A psychometric evaluation of the social skills rating system in children with attention deficit hyperactivity disorder. *Behaviour Research and Therapy, 43*, p. 733-746.
- Vietze, P.M., et al (1983). Attention and exploratory behavior in infants with Down's Syndrome. In Field, T. & Sostek, A. (Eds.). *Infants born at risk: Physiological, perceptual, and cognitive processes*. Grune & Stratton: Philadelphia, PA.
- Wave 1 Reporting and Analysis Plan. Retrieved from <http://www.peels.org>
- Wave 1 Report, *Assessment Results for Preschoolers with Disabilities (April 1, 2005)* Office of Special Education Programs . Retrieved from <http://www.peels.org>

- Weikart, D.P. (1989). *Quality preschool programs: A long-term social investment*. Ford Foundation: New York, NY.
- Weiner, B., Ottinger, D., & Tilton, J. (1969). Comparison of the toy play behavior in autistic, retarded, and normal children. *Psychological Reports*, (25), p. 223-227.
- Weiss, B., Beeghly, M., & Cicchetti, D. (1985). *Symbolic play development in children with Down Syndrome and nonhandicapped children*. Paper presented at the biennial meeting of the Society for Research in Child Development. Toronto, Canada.
- Weist, M.D., Freedman, A.H., Paskewitz, D.A., Proescher, E.J., & Flaherty, L.T. (1995). *Journal of Youth and Adolescence*, 24(6), p. 705-721.
- Welsh, J.A., & Bierman, K.L. (2001). Social competence. *Encyclopedia of childhood and adolescence*, April 6.
- Wentzel, K. R., & Asher, S. R. (1995). The academic lives of neglected, rejected, popular, and controversial children. *Child Development*, 66(3), 756-763.
- Weschler, D. (1991). *Wechsler Intelligence Scale for Children-Third Edition*. San Antonio, TX: Psychological Corporation.
- Weschler, D. (1992). *Wechsler Individual Achievement Test*. San Antonio, TX: Psychological Corporation.
- White, K.S., Bruce, S.E., Farrell, A.D., & Kliewer, W. (1998). Impact of exposure to community violence on anxiety: A longitudinal study of family social support as a protective factor for urban children. *Journal of Child and Family Studies*, 7(2), p. 187-203.
- Wigal, T., Swanson, J.M., Regino, R., Lerner, M.A., Soliman, I., Steinhoff, K., Gurbani, S., & Wigal, S.B. (1999). Stimulant medications for the treatment of ADHD: Efficacy and limitations. *Mental Retardation and Developmental Disabilities Research Reviews*, 5(3), p. 215-224.
- Willcutt, E.G., Pennington, B.F., & DeFries, J.C. (2000). Twin study of the etiology of comorbidity between reading disability and Attention-Deficit/Hyperactivity Disorder. *American Journal of Medical Genetics (Neuropsychiatric Genetics)*, 96, p. 293-301.
- Wing, L., Gould, L., Yeates, S.R., & Brierly, L. M. (1977). Symbolic play in severely mentally retarded and autistic children. *Journal of child psychology and psychiatry and allied disciplines*, 18, p. 167-178.
- Woodcock, R.W., McGrew, K.S., and Mather, N. (2001). *Woodcock-Johnson III Tests of Achievement*. Itasca, IL: Riverside Publishing.

Yawkey, T.D., & Pellegrini, A. (1984). (Eds.). *Child's Play: Developmental and applied*. Hillsdale, NJ: Erlbaum.

Yawkey, T.D., Dank, H.L., & Glosenger, F.L. (1986). *Playing Inside and Out: How to Promote Social Growth and Learning In Young Children Including the Developmentally Delayed Child*. Technomic Publishing, Inc.: Lancaster, PA.

## BIOGRAPHICAL SKETCH

Lee Ann Lehman (A.K.A. Lee Ann Brady) was born in Louisville, Kentucky and attended public kindergarten and 1<sup>st</sup> grade. She did not attend preschool or daycare. For grades 2-8, she attended parochial schools and for grades 9-12, she attended private school. Lee Ann obtained her Bachelor of Science degree in psychology from The Ohio State University and was elected to the Psi Chi Honor Society. While pursuing her bachelor's degree, Lee Ann worked part-time as a library assistant and as a research assistant for a social psychologist and industrial/organizational psychologist.

Following her bachelor's degree, Lee Ann pursued graduate work in industrial/organizational psychology and was accepted into the doctoral program at The Ohio State University. She obtained a position as a human resources generalist at a large national bank and later as a human resources manager at a national insurance company. She met her husband of nine years and together they had one son, Nicholas. Lee Ann obtained her Master of Science degrees in school psychology, community mental health, and K-8 teaching from the University of Dayton. She was awarded a fellowship for two consecutive years entitled "The Inclusion of Children with Disabilities in the Mainstreamed Classroom." She met her second husband and together they had one daughter, Michaela.

Lee Ann completed her master's-level school psychology internship with Columbus Public Schools in Columbus, Ohio and obtained a position with South-Western City Schools in Grove City, Ohio as a school psychologist where she remained for five years. During her tenure with South-Western City Schools, Lee Ann developed her expertise in intervention assistance teams, children with serious emotional disturbance and children whose first language was not English. Lee Ann was accepted

into the graduate program in school psychology at the University of Florida in Gainesville, Florida in 2006. She worked as teaching assistant for seven consecutive semesters teaching two undergraduate courses and as a research assistant for two years on three different research projects.

Lee Ann completed her doctoral-level internship at Children's Institute in Los Angeles, California and Hillsborough County Public Schools in Tampa, Florida, and expects to complete her Doctor of Philosophy degree in December, 2012. Lee Ann hopes to obtain a position in a public health agency, public school system incorporating mental health, or university as a psychologist working with children, adolescents, and family systems specializing in attachment disorders and treatment, resiliency, and risk and protective factors.