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MOTHER-CHILD INTERACTION: A COMPARISON OF YOUNG CHILDREN WITH OR WITHOUT SPECIAL NEEDS IN AN INCLUSIONARY PLAYGROUP SETTING

By

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ABSTRACT

MOTHER-CHILD INTERACTION: A COMPARISON OF YOUNG CHILDREN WITH OR WITHOUT SPECIAL NEEDS IN AN INCLUSIONARY PLAYGROUP SETTING

By

Debra Louise Lively

The early organization of parent-child interaction is the basis for language, cognitive and social emotional development. Play has been identified as a primary avenue to enhance these skills. Few studies have been conducted on how parents of young children with special needs interact with their caregivers, particularly in the earliest years prior to entering school.

The work completed by researchers Betty Hart and Todd Risely (1995) yielded significant differences in the number of words used and positive statements generated to young children by their parents based on socio-economic level. Fewer words and negative statements later correlated to the children's cognitive development and school success. Since socio-economic status demonstrated differences, similar differences could be possible with respect to caregivers of children with special needs. In view of the lack of this empirical data, further investigation seemed crucial.

The purpose of this study was to observe, compare, and record how mothers interacted, verbally and non-verbally, with their young children (with and without special needs) while participating in an inclusionary playgroup environment. Mothers were interviewed before and after attending their scheduled playgroup session in an effort to determine how comfortable they felt while participating. Four mother-child dyads, two children with special needs and two without, from the same socio-economic group were observed to see if differences existed. Analysis of the transcriptions were conducted using

an adapted form of Hart and Risley's Juniper Project (1995) coding system and non-verbal categories established by the SKI*HI Institute to determine if differences in parent-child interaction existed. Pre- and post-interviews were analyzed and coded using an adapted form of Appl, Fahl-Gooler, and McCollum's coding system (1997).

Results of this study indicated that there were more similarities than differences in the way mothers communicated with their young children. Mothers exhibited similar turn-taking trajectories, frequency of social episodes, and consistent responses to their children's communication attempts. They tended to produce more words, more variety of utterances, and longer social episodes while participating in mutual play as compared to all other activity contexts. In addition, mothers displayed a similar number of times when they conveyed warmth, used gestures, facial expression, eye contact, pointing, inflection, and positive statements. The differences found in this study were that mothers of children with special needs tended to use more purposeful touching, executed more non-verbal turns, used more negatives and imperatives, spent less time engaged in mutual play, asked fewer questions at a higher level of thinking, and generated fewer words to their children within specific age groups.

Research has indicated that some of the above differences can have a detrimental effect on children's overall development. Therefore, early intervention programs need to support, guide, and inform caregivers of their critical role in enhancing their children's language and cognitive development through positive interactions that are rich in both non-verbal and verbal language. Providing play opportunities for children with special needs with their caregivers and playmates their own age will allow for this positive interaction to occur.

DEDICATION

I would like to dedicate my dissertation to my loving husband Richard, daughter Sarah and son David. My husband's continual support...truly helped me finish. I can still hear him say, "You can do it." Those words, his love, and understanding made this dream possible.

ACKNOWLEDGMENTS

There are so many people I would like to thank who helped me fulfill a life-long dream. First and foremost, I would like to thank David Stewart, Ph.D., my dissertation chair, for all of his wonderful patience and encouragement. His knowledge and expertise guided the development of my research project from its infancy to its completion. For this, I am sincerely grateful.

In addition, my dissertation committee, Carol Sue Englert, Ph.D., Troy Mariage, Ph.D., and Holly Brophy-Herb, Ph.D. provided positive support and insight that assisted in making my dissertation a worthy contribution to the field.

A special thank you is due to the following people:

- Gabbie, who spent countless hours sitting next to me reviewing data, ensuring reliability, and providing the encouragement that kept me going.
- Lisa for her knowledge, expertise and patience in helping to develop the Access program used for data analysis.
- Sally who assisted in coding interviews, verifying reliability, and providing positive support.
- Saginaw Valley State University undergraduates who helped with the videotaping of observations.
- Saun for her invaluable expertise in formatting my dissertation and keeping me calm through the process.

- My family (Mom, Dad, and brother Tom).
- Colleagues and friends for their encouragement and support.

But above all, I would like to thank the mothers and their young children for participating in my research study...their participation made this dissertation a reality. I feel truly blessed to have had the wonderful support of so many.

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CHAPTER I:

INTRODUCTION

Over the past few decades there has been increasing interest among professionals working with parents and young children to examine the manner in which parents interact with their young children. Some researchers have reported statistically significant correlations between the way in which parents interact with young children and the rate of their developmental growth. Consistent findings have been cited for a wide range of dyads, including children from low socioeconomic (SES) families (Hart & Risley, 1995; Walker, Greenwood, Hart, & Carta, 1994), those born prematurely (Beckwith & Cohen, 1989) and those with severe developmental disabilities (Brooks-Gunn & Lewis, 1984; Mahoney, Finger, & Powell, 1985).

It has been implied that previous research regarding parent-child interaction has provided momentum to the design of early intervention services (Sandall, 1993; Thorp & McCollum, 1994). Most intervention efforts, however, have been conceptualized primarily from a child-focused, directive-teaching framework (e.g., McBride & Peterson, 1997; McWilliam, Tocci, & Harbin, 1995; Meisels, Dichtemiller, & Liaw, 1993). McBride and Peterson (1997) discovered, after observing 160 home-based early intervention sessions, that the interventionists primarily worked with the child rather than focusing on the parent-child relationships. The content of these interactions focused almost exclusively on the child's development or caretaking needs rather than on enhancing or developing skills

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that are critical for parents. Based on this rational, it would seem reasonable that the limited effectiveness of some traditional child-focused, teacher-directed early-intervention programs need to redirect their focus to accelerate developmental growth in young children by promoting parental interactive qualities that supports the development and well-being of children (Farran, 1990). Investigation that examines the way parents of young children with mild to moderate disabilities interact would seem to be a crucial step in developing a framework for future programming of early intervention programs and enhancement of developmental abilities. This could be of particular importance when looking at differences that may exist between parents of young children with special needs as compared to parents of young children who do not have any identified developmental delays or other special needs.

How caregivers (welfare families, working class families, and professional families) interacted with their children was examined by Hart and Risley (1995) who supported the importance of parents as first teachers of their children in the early years, particularly in the area of language development. For more than two years they observed one-year-old and two-year-old children and their caregivers interacting. In addition, 29 of the 42 children studied were tested in third grade to determine the importance of vocabulary growth as a predictor of later performance in school. For the 29 children observed when they were 1–2 years old, rate of vocabulary growth at age three was strongly associated with scores at age nine and ten. The results indicated that frequency of words produced by the caregiver during interaction with the child did make a difference. It appears then that the more a child hears of one or another aspect of the language, the greater the opportunity the child has to learn it (Hart & Risley, 1995, p. xi). These differences in the amount of early family experience translated into striking disparities in the children's later vocabulary growth rate,

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vocabulary use, and IQ test scores. The conclusions of their report indicated that even though children have the same kinds of experiences with language and interactions in their homes, children born into homes with fewer economic resources have fewer of these experiences. Consequently, they learn fewer words and acquire a vocabulary of these words more slowly. Hart and Risley's research demonstrated the importance of the amount of language experience in relationship to cognitive development.

Additional investigation conducted by Hart and Risley (1999) showed the importance of the *social dance* as the context of language experience. They described the social dance as an opportunity for parents to attend and invite children to join in talking, in which what each partner does governs what the other does. When the mother and child become true partners, "the social world of the infant gradually shifts into that of an apprentice to conversation" (Hart & Risley, 1999, p. 186). Hence, conversation contributes positively to a parent-child relationship. Their data implied that the important concern for parents is the amount of dancing they engage in with their child.

When looking at the social dance between parents and children, Hart and Risley (1999) observed parents' use of questions. They found questions were the most frequent prompt used by parents. Additional prompts included parent praise, imitation, and restatement. But it was parents asking questions that appeared to foster much of the give-and-take communication. With young children, 15% of parents' questions were "What?" or "Huh?" As children's ability in answering questions about things improved, parents began to direct children's attention to what the children should notice and remember to more fully participate in family conversations. Parents maintained interactions by asking hard questions and supplying the answers themselves. Responses and utterances parents generated by their children varied by the amount of waiting parents did before responding.

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If significant differences are noted in the effect of this give-and-take social dance, young children with special needs could potentially be at greater risk for optimal development if their parents engage less in the dance.

Utilization of Bloom's questioning techniques suggests that children will be challenged to push themselves beyond a lower level of thinking (Cummings, 1980). In addition, questions are viewed as critical in scaffolding children's language and critical thinking skills (Berk & Winsler, 1995). Berk and Winsler indicated that the use of questions is seen as being significant for classroom communication. Based on this, the types of questions used by parents could have an effect on their child's development. Therefore, investigating the interaction between parents with young children who have special needs compared to parents of young children who do not exhibit any special needs can have a positive impact on defining the way services should be delivered in early intervention programs.

Statement of the Problem

Early childhood educators have long cherished the belief that spontaneous play can nourish children's intellectual and social development (Athey, 1984; Davidson, 1996; Kostelnik, Soderman & Whiren, 1993; Santrock & Yussen, 1992). Play makes both direct contributions at given stages and long-range indirect contributions by providing a basis for further learning. Vygotsky (1978) identified the importance of play for children with special needs as extremely critical to promote higher-level thinking. He further described that play for children with special needs must have the same general goals as that of typically developing children (Berk & Winsler, 1995). Thus, play has been identified as one avenue where positive parent-child interaction can occur regardless of whether a child has a disability or not. This study attempted to investigate and compare parent-child interaction

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(verbal and non-verbal) in an inclusive playgroup setting. An inclusive playgroup setting was chosen to allow parents an opportunity to play and interact in an environment where the toys, group participants, teacher as facilitator, and activities would be constant and available. The following questions were addressed.

1. Is there a difference in the type and frequency of non-verbal cues (inflection, eye contact, getting down on the child's level, touch, pointing, facial expression, and gestures) generated by a mother of a young child who has mild to moderate special needs as compared to a mother of a young child who does not demonstrate any delays or other special needs?
2. Is there a difference in a mother's verbal interaction (kinds of utterances specifically the type of questions, frequency of words, use of positive and negative statements) when engaging a young child with/without special needs during play in an inclusionary playgroup setting?
3. Are there differences in the amount and length of episodes of social interaction (turn-taking) or floor holding (continuations) generated by either mother during play in an inclusionary playgroup setting?
4. Is there a difference in parental perceptions as to how they feel about playgroups, including the benefits, goals, support, and differences? And do parental differences exist in how they define play, inclusion, and their role in facilitating their child's play?

Need for the Study

Few studies have been conducted on how parents of young children with mild to moderate special needs interact with their caregivers. More significantly, there is little

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research that provides comparative data on the two groups identified for this study. Young children with special needs may be at increased risk for cognitive delays if caregivers consistently demonstrate lower levels of questioning, fewer words, more negative than positive statements, and less wait time during play. Hart and Risley's (1999) research provided a simple message for parents:

> When you talk with your children **a lot** about things that are not important, you automatically give them experiences that are important to their cognitive and emotional learning. While your children are little, your conversation matters. Children get better at what they practice, and having more language tools, more nuances, more fluency, more steps in the social dances of life is likely to contribute at least as much to your children's futures success as their heredity and their choice of friends (p. xiii).

One aspect of a caregiver's responsibility is to create a setting and atmosphere in which the benefits of language and cognition are maximized. The challenge is to determine the extent an adult should enter the play setting, as play can be adversely affected by not enough or too much adult involvement (Enz & Christie, 1993). The information gained by investigating the adult's role in play and whether adult interaction increases the child's use of verbal and non-verbal language has the potential of being useful, specifically to the growing field of early interventionists and parenting education. Such information can be directly applied in the home or playgroup situation in determining the actions of the caregiver in relating to their child during play.

Hart and Risley's (1999) data showed the magnitude of children's accomplishments depended less on the material and educational advantages available in the home and more on the amount of experience children were able to accumulate with their parents. This was critical with respect to language, affirmative feedback, symbolic emphasis, gentle guidance, and responsiveness. It is their belief that by the time children are three years old, even

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intensive intervention cannot make up for the differences in the amount of such experience children have received from their parents in those earliest years.

> Within the varied activities parents arranged for their children, we could see a curriculum of planned experiences, society's agenda for transforming the amorphous, amoral behavior of a newborn into the skilled self-sufficiency of a 3 year-old. Society delegates to parents the implementation of this child-rearing curriculum and gives them almost complete control over the presentation, timing, and sequencing of experiences. Nearly everything the children saw or heard was conditional upon their parents; everything they knew about the structure of the world was referenced to their own experience in the family (Hart & Risley, 1995, p. 181).

If interventionists could provide parents of young children information identifying the importance of their role in facilitating language and support for using strategies that help engage their child in rich conversations, then parents would potentially have a greater prospect to enhance their parent-child interactions. By learning more about the communication process and the uniqueness of parent-child interaction, it should be possible to promote optimum development for young children with special needs (McCollum, Ree, & Chen, 2000). Furthermore, perceptions of interactions become part of the assessment process (McCollum, Ree, & Chen, 2000). Since assessment is ongoing, these perceptions may be beneficial in guiding intervention strategies, planning and implementation.

Assumptions

The following assumptions aided in guiding this research project.

1. Before attending an inclusionary playgroup, parents would be provided with the playgroup daily schedule (parent-child play-structured and non-structured activities) and would have a choice of which group they wished to participate in based on an appropriate age range for their child.

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2. Parents and children had been enrolled in a parent home-based education program for at least six months and had attended a previous inclusionary playgroup ten–week session in the same facility.
3. Parents would be committed to attend playgroups on a regular basis.
4. When a child or parent was ill, videotaping would not occur and data would not be collected.
5. English was the primary language of all participants studied.
6. Each individual child's cognitive and language level was considered similar as demonstrated by current developmental testing.
7. The playgroup site would be adequately supplied.
8. The location of the playgroup site and availability of materials would remain constant.
9. Comparison groups would be of similar socio-economic status.
10. Participating children would be in the age range of 18–48 months.
11. Participating children identified as having disabilities would be eligible under the Physically and Otherwise Health Impaired Category (POHI).

Organization of the Dissertation

This study is presented from an ethnographic, observer point of view. Chapter I includes material on the purpose and rationale for the study including assumptions. Chapter II consists of a review of the literature about the importance of play to enhance the development of language, how adult interaction impacts play, and the effect of special needs on play. The methodology in this study is described in Chapter III. Chapter IV includes the analysis of the results of the study. For this chapter, the researcher used

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information from observations during inclusionary playgroups, pre- and post-interviews, audio and video-taped recordings, field notes, and a collection of various artifacts (school records, playgroup brochures, program newsletters, and lesson plans). Chapter V contains the findings and conclusions of the study along with further research recommendations and reflections. Information from the analysis of the data was used to generate an explanation for the findings.

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CHAPTER II:

REVIEW OF THE LITERATURE

INTRODUCTION

In this chapter, four critical literatures focusing on play are examined. These four literatures lead to the specific research questions addressed in this study. In the first section, the role of play and how play impacts cognitive development are examined. Following, the influence of play on language development is discussed. The next two sections explore the role of the adult during play interaction and how children with special needs can impact the play environment, particularly, with respect to the feelings experienced by the caregivers. The chapter concludes with a brief synthesis of the review of literature.

THE IMPORTANCE OF PLAY

Play is considered by some to be the most important activity in which the young child engages (Kostelnik, Soderman, & Whiren, 1993). As today's children continue to experience pressure (e.g., poverty, parental substance abuse, single parenting, lack of transportation, non-educated parent, unemployment, disability) in their lives, play becomes even more crucial. Play increases affiliation with peers, releases tension, advances cognitive development, increases exploration, and provides a safe haven in which a child can test his or her theories about the world (Athey, 1984; Nicolopoulou, 1993; Rogers & Ross, 1986; Rogers & Sawyers, 1988). Play increases the probability that children will converse and

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interact with each other. During this interaction, children practice roles that they will assume later in life.

In play, children recreate their environments. Their principal task is to produce abstract thought from concrete experience: when a child decides to be a barber, he may find that a bristly block serves as a razor. This discovery will be important to him as he begins to master the use of language, which is also made up of symbols (McKimmey, 1993). Make-believe depends heavily on verbalization.

Language is necessary to set scenes in play situations as well as to make behavior understandable to others participating in the play episode. Since sociodramatic play, that is, play that involves other persons in a dramatic pretend play situation, cannot proceed without cooperation between players, verbalization also serves as a means of management and problem solving (Klugman & Smilansky, 1990). Play offers young children the opportunity to practice language systems, especially the pragmatic system; which is the use of language in different situations for different functions. Pragmatic categories to evaluate children's use of language were developed by Halliday (1978) who believed that children engaged in symbolic play with peer interaction used more cohesive oral language.

Children's cognitive development does not occur in a social vacuum. According to Santrock and Yussen (1992), Vygotsky recognized this important point about children more than a half century ago. Vygotsky described play as the leading facilitator of development in young children, wherein children learn to think abstractly and impose arbitrary meaning on objects and actions. Vygotsky theorized that elementary mental functions shift to a higher mental functions as a consequence of social interaction, which changes the child's intellectual operation (Vygotsky, 1962). Social experience can shape the way of thinking and interpreting the world available to young children. Because Vygotsky regarded

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language as a critical bridge between the sociocultural world and individual mental functioning, he viewed the acquisition of language as the most significant milestone in children's cognitive development (Berk & Winsler, 1995). In addition, he theorized that higher functions, such as thought and language are socially formed and culturally transmitted. According to Vygotsky, language, which first serves children as a means of social contact with other people, becomes a tool of thinking available to the child. Input from others promotes development if it is within a child's "zone of proximal development." Vygotsky defined the zone of proximal development as the distance between a child's actual and potential development levels. The lower level of the ZPD is the level of problem solving in which the child can work independently. While the upper level of the ZPD is too difficult for children to master alone but can be mastered with the guidance and assistance of adults or more highly-skilled children (Santrock & Yussen, 1992; Vygotsky, 1978).

Allowing parents an opportunity to participate in play provides young children an opportunity to engage with a mature play partner where they can act more competently in emerging make-believe play behaviors (Berk & Winsler, 1995). Through interaction with adults in the zone of proximal development, children gradually learn to perform more and more complex steps in an activity (e.g., completing puzzles); at the same time children are learning that activities are made up of actions and with guidance these actions can be mastered (Vygotsky, 1978). Upon mastery, children can do an activity as well as describe it. The parent is not teacher as much as a joint participant in recurring learning experiences (Vygotsky, 1978). Providing a playgroup environment that is developmentally appropriate, allows parents the ability to engage in joint play with their child. The social environment (inclusionary playgroup) is the necessary scaffold, or support system, that will assist parents

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in developing competencies in their young children. Vygotsky's theories emphasized the importance of social interaction, language as a tool, the zone of proximal development, and the role of play in children's development (Lauritzen, 1992).

Jean Piaget (1962) saw play as assimilation of external stimuli to fit internal schemas. Piaget believed children must actively construct their knowledge, that they only understand that which they discover, invent, or interpret for themselves. Mental growth, according to Piaget, is activated by states of disequilibrium caused by discrepancies between the child's concept of reality and the physical nature of the social environment. The child, needing to make sense of the world, strives to resolve the conflict and thus, growth occurs through the process Piaget called equilibration (Lauritzen, 1992; Nicolopoulou, 1993). Piaget, in examining play, classified play into stages that corresponds with stages of cognitive development: 1) practice play, which dominated the sensorimotor period; 2) symbolic play, which is seen in the pre-operational stage; and 3) games with rules, which develops in the pre-operational period but is prominent during the concrete operational stage. The quality of a child's play changes dramatically as they approach their second year of life. During the second year of life, young children begin to demonstrate a developing symbolic functioning in their play, and by their third birthday, play actions become increasingly more coordinated and cohesive as reflected in their development of sequential combinations of symbolic play schemes (Casby, 1991). Therefore, the focus of this study looked at children who were at least 18–40 months of age chronologically and cognitively.

Piaget maintained that both language and play are manifestations of the symbolic ability that emerges toward the end of the sensorimotor period. According to Piaget (1971), the symbolic function is the bridge between sensorimotor activities of the infant and the operational intelligence of the school-age child. Ability to use a symbol to represent objects

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or another symbol is the essence of operational thought. This ability to form mental representations or images allow young children to think of and imagine objects and events that are not physically present. For Piaget, symbolic function is the basis for all forms of adult intelligence, including thought and language (Athey, 1984; Lauritzen, 1992; Nicolopoulou, 1993). Piaget acknowledged the social component of play as having a contributing role in learning, however, the peer context, not the adult-child context was given primacy (Pellegrini & Galda, 1993).

Play can also be described as an activity that is without frustrating consequences for the child even though it is a serious activity (Bruner, 1983). Bruner stated that while language is innate to human beings, language must be nurtured through repetition and experience to be mastered. Development of thought may in large measure be determined by the opportunity for dialogue, with dialogue then becoming internal and capable of running off inside one's head on its own (Bruner, 1983). Bruner (1983) theorized that social context is extremely important in understanding children's language, cognitive, and social development. In addition, he stressed the role of parents and teachers in constructing a child's environment and argued that adults scaffold children's learning (Santrock & Yussen, 1992). Scaffolding, as described by Bruner, is adult intervention in a child's learning in order to encourage higher levels of cognitive, language, or social skills (Davidson, 1996).

In view of the fact that many educators and parents prefer their child's out-of-home program to have an educational focus, play often becomes the victim of this new concept (Elkind, 2001). As a result, children's spontaneous play is being replaced with structured activities, both at home and at school. This practice reflects an earnest desire by parents and teachers to provide what is best for the child. Everyone wants children to compete successfully in our complex, hurry-up world. Because parents of special-needs children

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often feel even more compelled to assist their child in learning, they tend to take a teacher-student role rather than a parent-child role (Marschark, 1997). Unfortunately, structured, adult-directed activities are not as likely to help children make the most of their childhood. This approach to education will not give children the skills and attitudes they need to be able to adapt to the demands of the future (Rogers & Sawyers, 1988). Granting the child responsibility in choosing their own activities, with the parent providing minimal direction, promotes learning and mastery over their own behavior (Berk & Winsler, 1995). Theorists such as Vygotsky (1962), Rogoff (1990), and Bruner (1983) advocated the role of the adult as facilitator in play situations to encourage children's learning. Thus, a primary focus of out-of-home programs should be providing opportunities that focus on playing rather than teaching.

Play and Cognitive Development

Rubin, Fein, and Vandenberg (1983) examined the relationship between play and cognitive development. Play has been linked to problem-solving, coping skills, creative thinking, and the development of language (Johnson, Christie, & Yawkey, 1987). Play changes with, and therefore reflects, children's development. Researchers have attempted to classify these changes by observing children's play. On the surface, children's play looks quite simple. However, play touches on every aspect of development and learning. As supported by various researchers (Athey, 1984; Klugman & Smilansky, 1990; Lauritzen, 1992; Nowak-Fabrykowski, 1994), play offers children the opportunity to develop higher order of thinking such as:

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- ability to solve logical operations, such as object constancy;
- ability to test hypothesis;
- ability to experiment with creativity;
- ability to experiment with language;
- ability for social skill development.

Dunn and Herwig (1992), attempted to examine the full range of social-cognitive play behavior. Specific issues that were addressed included the relationship between social-cognitive play, intelligence, and divergent thinking (the generation of many ideas from a given stimulus). It was hypothesized that higher levels of cognitive performance would be seen in children displaying higher levels of cognitive play. The authors' findings suggested that social play that was facilitated by adults and peers enhanced cognitive development. Minick (1996) supported this concept through his discussion of Vygotsky's belief regarding the development of a child's play activity. He agreed with Vygotsky's view that by being engaged in play, "thought and meanings are liberated from their origins in the perceptual field, providing the foundation for the further development of speech and its role in advanced forms of thinking and imagination" (Minick, 1996, p. 43).

Saracho's (1995) study explored the relationship between young children's cognitive style and their play behaviors. In their study, 2,400 preschool children were given the opportunity to engage in free choice play activities (physical, manipulative, block, and dramatic play). Results demonstrated a significant interaction ($p<0.01$) between age, cognitive style, and sophistication level of play. Cognitive levels and sophistication of play increased as children matured.

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Play and Language Development

Language is central to a child's development (Vygotsky, 1962). Acquisition of the primary language is a developmental achievement that is remarkable not only for its universality but for the speed with which it occurs. The success of the children as language learners becomes dependent on the facilitators in their environment (Rogoff, 1990). Since caregivers are the primary facilitators from birth, the emphasis they place on providing repeated language interactions becomes even more crucial to their children's positive development.

Language requires the mastery of two reciprocal modes of performance, comprehension and production, which develop together. Language was defined by Hart and Risley (1995) as "the mental organization of the knowledge that makes communication possible" (p. 12). Comprehension presupposes the ability to differentiate language stimuli from other auditory input and to infer meanings. Production requires the ability to select and organize the sound of the language in ways that produce meaningful words and sentences in relevant language environments. In symbolic play, which reaches its peak during preschool years, children use language and gestures to transform the identities of objects, actions, and people. Symbolic play is a social and abstract activity involving object substitution and role playing (Lauritzen, 1992). In order to take part in social play, children must be able to (a) distinguish between reality and pretend, (b) abstract rules for structuring play, and (c) cooperatively construct or have a common image of the theme. Make believe depends heavily on verbalization. Words take the place of reality in such ways as: declaration of change of identity ("I'm the barber"), substituting speech for action ("I'm cutting your hair"), and setting the scene ("We're in the barber shop") (Klugman & Smilansky, 1990). Boyatzis and Watson (1993) observed 48 preschool children to

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investigate the symbolic quality of their representations for objects that were absent. The goal was to determine if there was a developmental trend in the object representation of children. The results showed the symbolic quality of the children's gestures and words were strongly related to age ($p<.001$), with more sophisticated representations being performed by the older subjects. The similarity in the development of the use of symbols in language and in pretend play has been widely recognized (Athey, 1984; Giffin, 1984; Rogers & Sawyers, 1988).

McCune (1995) observed 102 preschool children in their homes during play time to see if a relationship between the development of play and language that corresponded with cognitive development existed. Play episodes were videotaped both with and without the mother. Transcripts of the child's language were made along with descriptions of the child's accompanying actions. Transcripts were evaluated for word combinations as well as mean length of utterance (MLU). The videotapes were also analyzed for particular levels of play using a scale that ranked representational play actions. McCune's findings supported the developmental view that language acquisition is integrated with other developmental skills using play as the medium.

Isbell and Raines (1991) investigated the effects of three types of play centers (blocks, housekeeping, and changing thematic center) on the oral language production of twenty young children ages four through six. Language samples were collected by videotaping four groups in fifteen-minute play sessions per week for five weeks as the groups rotated through the three centers. Three hundred minutes of language samples were examined for subjects' fluency, number of communication units, mean length of utterances (MLU), and vocabulary diversity. The findings indicated: (a) the subjects' fluency, number of communication units, MLU, and vocabulary diversity were greater in the block center than

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in the housekeeping center, but no significant difference was found between the language production and vocabulary diversity of males and females in the three centers; and (b) subjects produced more oral language and used more diverse vocabulary in the block center. This study seemed to suggest that the block center could be an effective environment to provide young children with opportunities to develop their oral language fluency and use more diverse vocabulary.

Adult Interaction and Play

Children's play is a different phenomenon when under the control of adults than it is when children have the leeway to develop their play in the direction with materials, themes, playmates, and time frames that they choose themselves (Nicolopoulou, 1993). However, under Vygotsky's theory, a more sophisticated play partner encourages the child to perform above the levels that could be achieved alone (Bornstein & Tamis-LeMonda, 1995). Bornstein and Tamis-LeMonda (1995) investigated the effect of adult interventions in play situations. They defined two types of interventions: demonstration and solicitation. Demonstration provides children with information about how to engage in a particular activity by modeling the action of an adult. Solicitation encourages a child's participation in specific play activities. Actions are suggested but a distance is maintained. Solicitation provokes the child to conjure scenarios and produce activities appropriate for the situation. The study suggested that the solicitation type of interaction might make a critical difference to the growth of a child's symbolic play. Interactions that are responsive to children's expressed interests serve to extend and elaborate symbolic engagement and motivate further exploration. According to the authors, intrusive intervention, which attempted to direct attention to an object not currently the focus of play, affected the play negatively.

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Adult participation in play can provide a scaffold to raise children's social interaction, increase the level of play, and generally create a setting in which the benefits of play are maximized while the conflicts and confusion are minimized (Ford, 1993). Keeping the child in the zone of proximal development is important for the enhancement of cognition. Adults need to provide assistance when children need help but reduce the amount of assistance as children become more competent in their play (Berk & Winsler, 1995). Responsive and supportive interactions provide young children with appropriate challenges. A young child's engagement with a task and willingness to continue with a task are maximized when interaction with the adult is warm and responsive. Thus, the emotional tone of the interaction is fundamental for scaffolding to occur (Berk & Winsler, 1995). File (1994) examined the cognitive and social complexity of children's play and their interactions with teachers. Also examined were teacher beliefs about children's social development and their role in these processes. Classroom observations revealed that teachers were more directive in facilitating the cognitive play of children than the social play. Permitting children to have some control over the environment suggests that the adult often must stand back and allow the child some independence. Children's learning is promoted by developing mastery over their own behavior (Berk & Winsler, 1995). Playgroups where parents have an opportunity to interact with their child in a safe, consistent environment will help to foster the concept of allowing children opportunities to choose the activities they wish to explore.

Brofenbrenner (1979) studied the behaviors and attitudes of teachers and parents during play with young children. He concluded that children's competency was affected by what parents and teachers did with them during play. Teachers have preferences as a result of their training and experience. Parents also have preferences. Fathers, for example, are known to engage in rough and tumble play with children more than mothers. Mothers, on

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the other hand, are more likely to engage in language play, whether song, conversation, or rhymes. These differences can impact play positively or negatively. Affleck, McGrade, McQueeney, and Allen (1982) determined that parents who had been involved in parent-infant special education groups showed greater responsiveness to their young children and participated more fully in the "give and take" necessary for effective communication than comparison parents. Accordingly, the parents who are participating in this research study have been involved in a special education program for at least one year prior to being video taped in an inclusionary playgroup setting. Consequently, the mothers of the young children with special needs would be considered similar to those groups studied by Affleck et al. (1982). Therefore, the mothers' abilities for demonstrating positive interactions should be encouraging.

Play interventionists argue that direct teacher involvement can enrich children's play experiences and maximize play's impact on their intellectual and social development. Non-interventionists express concerns that excessive teacher intervention can interfere with play's impact on development by reducing opportunities for discovery, problem solving, and peer interaction during play (Enz & Christie, 1993). Enz and Christie (1993) looked at the types of play styles used by teachers in play settings, the consistency of the play styles, and how the different styles had an effect on children's oral language, literacy activity, and play behaviors. Four teachers were videotaped interacting with playgroups on two separate occasions. The authors determined that four types of adult play roles were observed: (1) stage manager, (2) co-player, (3) play-leader, and (4) director. It was determined that the play leader style generated intense pretend play, which in turn stimulated the children's language. Thus, Enz and Christie (1993), concluded that teacher involvement can enhance children's play as long as it was not directive or intrusive.

Children with Special Needs and Play

With the passage of P.L. 94–142 that stated every child is eligible to receive a free and appropriate public education in the "least restrictive environment" educators were directed to plan instructional programs for students with disabilities. These programs were to be implemented in the most normal environment possible given the educational needs of the child. Embedded within the mandate was the acknowledgment that schools serve an important function for these children, especially as it relates to socialization. With the re-authorization of this law in 1990 called the Individuals with Disabilities Education Act (IDEA), services were expanded to include children from birth to twenty–one (formerly five to eighteen). Emphasis was placed on special education programs providing services to young children, birth to three.

Recent years have witnessed an increase in the number of preschool children enrolled in non-specialized, early care and education programs designed primarily for children without disabilities (Wolery & Bredekamp, 1994). With this emergence of inclusionary programs as a major alternative service for young children, policy makers and administrators often identify inclusion as a primary service option rather than a service that was previously provided due to parental advocacy (Odom, 2000). The underlying principle of inclusion maintains that by providing an environment for children with disabilities with peers without disabilities, positive social and emotional gains for children with disabilities will occur. While there is much literature to support inclusion in school-based programming and the benefits of these settings for school-aged children, little empirical inquiry to date has explored the benefits of inclusion for infants or toddlers in typical community environments (Buysee & Bailey, 1993).

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Guralnick and Neville (1997) described the importance of the central role of social competence with peers in the lives of young children with disabilities and affirmed the importance of such interaction. Parents of children with special needs have stated they want their children to interact and form friendships with peers who are developing normally (Guralnick, 1994; Strain, 1990). For children with disabilities, the opportunity for "social contacts with peers in their neighborhood and community appear to be more limited" (Guralnick & Neville, 1997, p. 594). Benefits of inclusion include increased opportunities for parents to interact with families of children who are developing typically and to learn about typical child development (Bailey & McWilliam, 1990; Lamorey & Bricker, 1993).

Appl, Fahl-Gooler, and McCollum (1997) reported parents of children with disabilities who had attended inclusive parent-child playgroups wanted services that supported their concerns. Their study explored the feelings of comfort and discomfort of twelve parents who had attended inclusive playgroups (Parents Interacting With Infants) from 1987 to 1996. Although interviews were completed a year or more after the parents had attended the playgroups, the researchers were able to identify four major themes projected by these parents: they recalled having goals for themselves; identified benefits for themselves and their children; identified difficulties they experienced in the groups; and provided some suggestions pertaining to factors supporting parental involvement. Since parental feelings of comfort and discomfort have the potential of affecting parent-child interaction, it seems crucial for the researcher to investigate parental feelings immediately following the playgroup experience.

Researchers such as Hanson (1985) and Hanes (1985) have acknowledged the importance of parent education programs in the enhancement of relationships and skill development of both parents and young children with disabilities. Due to the very nature of

playgroups, parental education would seem ongoing as a result of the modeling, networking, and activities covered.

Little research exists regarding play and parent-child interaction of very young (birth through three years of age) children with special needs. Much of the literature focuses on the "readability" of infants and young children rather than the parent-infant or parent-child interactions (Berger, 1990). More research exists regarding children with special needs during the pre-school years. Preschool children with disabilities, who may have difficulty developing socially, may subsequently have difficulty when social skill is required in play (Lederberg, Ryan, & Robbins, 1986).

Cornelius and Hornett (1990) explored the cognitive and social play behaviors of deaf and hard-of-hearing kindergarten children (mean age of 5.8 years) with regard to classroom instructional mode and communication strategies. Their study included observation of two different classrooms, one using sign communication and the other an oral approach. Their results documented several important differences in children's play behaviors that were related to the method of instruction:

> Children who used sign played house, made milk shakes, pretended they were riding busses, and reenacted a barbershop complete with invisible scissors. They signed to exchange rules, create new recipes, and continue the play frame. Children in the oral-based class primarily engaged in solitary play, rarely vocalized, made few gestures and did not demonstrate interactive or cooperative forms of play behavior (Cornelius & Hornett, 1990, p. 319).

In other words, positive play leads to healthy social skill development among children and language communication that allows and supports positive play needs to be encouraged. Cornelius and Hornett (1990) confirmed the importance of the adult to include communication through signs and other physical forms (i.e., gestures, eye contact,

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SUMMARY

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facial expression, body language) to support positive play schemes for deaf and hard-of-hearing kindergarten children. This study investigated and compared the parent-child interaction of two separate dyads in an attempt to discover what differences existed. Furthermore, identified differences, the kind, frequency, and quality of those differences, were observed and recorded.

Summary

The role of play in developing children's cognitive, language, and social identities is of critical importance. Wertsch and Tulviste (1996) suggested in their discussion of Vygotsky's theory that children are unique, but that children's individualities have common features, which must be developed. Since the play environment for this study was considered constant, mothers and children were able to communicate and interact in shared concrete environments providing the opportunity for the development of common knowledge and skills.

Children develop more sophisticated language and social skills as they reason with others about play situations. According to language stimulation research, in order for children to develop intellectual oral language competence, they must interact with grown-ups (Bruner, 1983). Hart and Risley's research demonstrated that differences existed in the way caregivers (grown-ups) interacted with their young children, particularly in relation to social economic status. The differences they identified provided crucial information that is important for a child's future school success.

Since children with special needs are often at a greater disadvantage educationally, the literature supports play as a positive avenue for learning, emphasizing the role of an adult or a more capable peer to scaffold the child's language, and cognitive development

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(Vygotsky, 1978; Berk & Winsler, 1995). This study aimed to investigate potential differences that could exist in the way mothers communicate and play with their children with special needs as compared to mothers and young children without identified special needs or delays.

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CHAPTER III:

METHOD

Research Questions

The purpose of this study was to determine if differences existed between parent-child interactions of two different groups, two mother-child dyads in each group. Two dyads were composed of parents and young children who did not have any identified developmental delays or special needs while the other two dyads included parents and young children who had been identified as having a mild to moderate disability without any obvious cognitive delays. Both children with a disability for this study were identified as Physically and Otherwise Health Impaired (POHI). If significant differences exist as suggested in the literature, the impact of the findings may have the potential of supporting and enhancing early intervention strategies. In order to accomplish this task of investigation, the following research questions were addressed:

1. Is there a difference in the type and frequency of non-verbal cues (inflection, eye contact, getting down on the child's level, touch, pointing, facial expression, and gestures) generated by a mother of a young child who has mild to moderate special needs as compared to a mother of a young child who does not demonstrate any delays or other special needs?
2. Is there a difference in a mother's verbal interaction (kinds of utterances specifically the type of questioning, frequency of words, use of positive and

negative statements) when engaging a young child with/without special needs during play in an inclusionary playgroup setting?

3. Are there differences in the amount and length of episodes of social interaction (turn-taking) or floor holding (continuations) generated by either mother during play in an inclusionary playgroup setting?
4. Is there a difference in parental perceptions as to how they feel about playgroups, including the benefits, goals, support, and differences? And do parental differences exist in how they define play, inclusion, and their role in facilitating their child's play?

Research Design

This study was designed to examine, assess, and compare the interaction between parents and children from two different groups: two mothers and two young (18–40 months) children with mild to moderate special needs (without any obvious cognitive delays) and two mothers and two young (18–40 months) children without any identified special needs or developmental delays. Mothers and children were observed the first 30–40 minutes (free play/parent interaction time) of four hour-long playgroup sessions during an eight–week period in an urban setting.

This research consisted of descriptive and comparison data. Descriptive methods were used to explain (a) the responses parents gave from parental interviews, (b) the types of questioning used by parents, (c) kinds of utterances, and (d) types/frequency of communication verbally and non-verbally initiated by parents. Comparison data included comparisons of (a) frequency of the number of words used, (b) frequency of questioning, (c)

activity contexts, (d) adjacency contexts, and (e) comparison of episodes of social interaction and floor holding.

Operational Definition of Key Terms

Context Areas for the Inclusionary Playgroup

Housekeeping Area:

The housekeeping area was a designated play area where children had an opportunity to recreate daily experiences through social dramatic play. This area was equipped with the following: toy kitchen appliances and utensils, child size table and chairs, child sized couch and chair, dolls and doll beds, doll high chair, and miscellaneous props such as play food, telephone, and brooms. In addition, this area included a cash register, doll house, and push toys such as a vacuum cleaner, grocery cart, and doll stroller. These toys remained constant during all of the playgroup sessions.

Gross Motor/Block Area:

The gross motor/block area was a designated play area where children had an opportunity to use large muscles (slide, climb, go in, out and through, build with blocks, play with balls, toss bean bags). This area was equipped with the following: a large slide with a small house underneath supporting the structure, ball pit, large climbing cube, blocks, tunnel, and a large tent car. The tunnel and the large tent car were the only items that were not used on a consistent basis. The car and the tunnel were introduced during separate weeks of the ten–week playgroup session, a decision made by the playgroup facilitators. All other items remained consistent.

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Sensory/Fine Motor Area:

The sensory/fine motor area was a designated play area where children had an opportunity to use small muscles and experience different elements in a three-bin sensory table. This particular area included a workbench, Lego building blocks, and a sensory table where items were changed weekly (beans, rice, goop, cotton balls, water, musical instruments, pom-pons, and packing peanuts). Whatever items were used in the sensory bins on Monday of a particular week were continued to be used at each playgroup throughout the entire week.

Table Activity Area:

The table activity area was a designated play area where children had an opportunity to complete projects or practice specific skills defined by the teacher/facilitator. Activities were carefully planned by the facilitator and were implemented by the parent and child. Some of the following activities were provided: matching objects/pictures, opening and closing containers, putting items in and taking out, painting, gluing, puzzles, homemade books, and sequencing activities. These structured activities tended to be more parent directed and were introduced by the facilitator. Activities were considered developmental and different for each age group.

Book/Toy Area:

The book/toy area was a designated play area where children could play with books, have their mother read to them, and/or play with small toys located in a toy box and on a small shelf. In this area several books were available for parents to share with their young child. Some of the toys available included the following: stacking toys, doctor kit, surprise

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boxes, shape sorter, and banjo. These books and toys remained constant throughout the entire playgroup session.

Episode of Social Interaction

For purposes of this study, an episode of social interaction occurred when parents and children engaged in social behavior with one another. Each interaction was considered a turn. Turns for adults and children included initiation, response, continuation, scaffolding, imitation, prompted behavior, and no response. These turns consisted of verbal or non-verbal communication. An episode of social interaction was coded only when each participant took alternate turns, for instance, mother-child or child-mother. An episode was coded as ending when the person addressed did not verbally answer within 15 seconds or when a partner continued to hold the floor for 15 seconds or longer. Longer episodes of social interaction could be long bouts of stimulating the child through affectionate play and talk. In Hart and Risley's (1999) research, children did most of the initiating. For 12–19-month-old children, still babbling most of the time, they recorded an average of ninety–six interactional episodes per hour. More than half (59%) were initiated by the children's touching, babbling, or offering their parents something. In this study, the minimum of an episode included two alternating turns while the maximum episode included nineteen alternating turns.

Floor Holding (Continuations):

Floor holding occurred when parents engaged in social monologues where they continued to hold the young child's attention, talking, filling in the child's turn, touching and asking questions to prompt the child to respond, and/or pointing and showing

something to the child. In Hart and Risley's (1999) research they found that before children could talk, parents tended to do more floor holding. However, after the children were talking, the children took over the floor holding (Hart & Risley, 1999).

Young Children with Special Needs:

The two young children with special needs included in this study were identified as having a specific disability by a multi-disciplinary evaluation team and were currently enrolled in a public school parent-infant special education program. The children were categorized as Physically and Otherwise Health Impaired (POHI). Each playgroup session had at least 1–4 children identified with special needs. All children with special needs met the federal requirements in one or more of the following categories: Physically and Otherwise Health Impaired (POHI), Hearing Impaired (HI), Visually Impaired (VI), Pre-Primary Impaired (PPI), Speech and Language Impaired (SPL), Autistically Impaired (AI), Mentally Impaired (MI), Severely Multiply Impaired, and Emotionally Impaired (EI). Even though the two children for this study were identified as POHI, current testing indicated their cognitive abilities were within a normal range. The multi-disciplinary evaluations completed by the Special Educator, the Psychologist, and the Physical and Occupational Therapist, included observations, tests of motor function, standardized testing (Baley), and developmental checklists (Brigance and Early Intervention Developmental Profile).

INSTRUMENTATION

The following instruments were used to record data.

1. Initial (Pre) Interview Protocol adapted from Appl, Fahl-Gooler, and McCollum (1997):

An adaptation of their instrument was used, as their research did not include a pre-interview phase. This instrument was given to all mothers before they attended the first week of their chosen playgroup session. At least two age-appropriate sessions were available to each family. Participants were contacted individually two to three weeks prior to the interview. During this initial contact, mothers were asked to identify where they would prefer the interview to take place and to identify a convenient time for the interview. According to Seidman (1991), equity in building the relationship between the interviewer and participants begins by this initial contact. Allowing participants to feel as if they are making some of the decisions about the interview, helps keep the process fair and more equitable. All mothers indicated they preferred their home for this initial interview. The researcher informed each mother that all information discussed would be kept confidential and that interviews would last approximately one hour. All initial interviews were held at participants' homes and lasted approximately one hour each. Interviews were audio-taped in an effort to include all information shared by each mother. The initial interview protocol included the following questions:

1. What other community groups have you been involved in with your child? If you were involved, what were some of the features of those groups?
2. What, if anything is unique about "Play to Learn" groups?
3. What are your goals for your child within the playgroup? What are your goals for yourself?
4. How would you define play?
5. Share your ideas concerning the concept of inclusion.
6. If opportunities exist, will you share information about your child (disability, progress) with other parents?

7. How comfortable are you with sharing information?

8. How do you feel you facilitate your child's play?

2. Follow Up (Post) Interview Protocol adapted from Appl, Fahl-Gooler, and McCollum (1997):

The follow-up interview protocol was adapted to include information regarding how the parents defined play, inclusion, and their role in facilitating their child's play. These concepts were not included in Appl, Fahl-Gooler, and McCollum's original interview protocol, but were considered by the researcher a necessary component. Understanding each mother's concept of play, inclusion, and their role in facilitating their child's play was considered important due to the potential influence their understanding might have on the quality of their interactions with their child. All of the other questions were taken directly from Appl, Fahl-Gooler, and McCollum's interview protocol with the exception of question number four which included specific activities from the playgroup each mother attended.

This adapted instrument was given to all parents within thirty days following the last attended playgroup session. Mothers were asked one week prior to the last video-taped session of playgroup when and where a final interview could occur. Once again, mothers were informed that information shared would be kept confidential, interviews would last approximately one hour and they would have a choice of where and when the interview would take place. All but one interview was held in the participants' home. The final interview with the mother of the younger general education child was held onsite due to her convenience. Interviews were audio-taped in an effort to include all information shared by each parent. The final interview protocol included the following questions:

1. What, if anything was unique about the "Play to Learn" group you attended?

2. Were your goals for your child achieved? Were the goals you set for yourself achieved?
3. How would you define play? Share your ideas concerning the concept of inclusion.
4. In thinking about the major components of the groups (welcome, play time, group time, snack time, and closing time), what facilitated your involvement? How did the facilitators involve you? How did other parents help you feel involved? How would you describe barriers to your involvement?
5. In what ways were you listened to and responded to in a supportive and positive fashion? How was your feedback about the groups elicited and used?
6. What opportunities did you have to share information about your child (disability/progress) with other parents? How comfortable were you with this?
7. What enhanced your sense of belonging? What impeded your sense of belonging? Do you think other parents felt the same?
8. What information that was provided did you find useful? What was not useful?
9. What else would you have liked the facilitators to do? What recommendations do you have for future facilitators, other parents?
10. How did you feel you facilitated your child's play?

3. Non-verbal Categories from the SKI*HI Non-verbal Communication Within Utterances Form C (The SKI*HI Model, A Resource Manual for Family-Centered Home-Based Programming for Infants, Toddlers, and Preschool-Aged Children with Hearing Impairments) (Watkins, 1993):

Some of the categories from the checklist were used to chart data for non-verbal communication initiated by parents within individual utterances. These categories included

inflection, eye contact, getting down on the child's level, touch, facial expression, and gestures. In addition, pointing, conveyance of warmth, and positive and negative communication were recorded for each utterance initiated by each parent. Each child's non-verbal information was coded but did not include the category getting down on the child's level.

4. Transcription Coding System for inclusionary playgroup observations adapted from Betty Hart's 1986 Juniper Gardens Language Project coding system:

This observation coding system was used to analyze data represented in *Meaningful Differences* (Hart & Risley, 1995). In addition, the researcher contacted Dr. Hart for enhanced understanding of the coding system to make adaptations to meet the project needs. Adaptations necessary included the following: (a) a more comprehensive description of non-verbal/non-vocal behaviors, (b) a change in the context descriptors from home to inclusionary playgroups including specific playgroup areas, (c) a change and deletion of some of the unnecessary linguistic categories, (d) a change in the interaction code categories to focus attention on participating mothers, (e) a change from number coding to category coding using Microsoft Access, (f) a more comprehensive description of kinds of utterances, and (g) a more detailed list of activity context codes. The following briefly discusses the adapted coding system. For a comprehensive description of the coding system and examples see Appendix C.

1. A child's vocalizing and talking with his mother in an inclusionary playgroup setting.
2. A mother's vocalizing and talking with her young child in an inclusionary playgroup.

3. A child's social and behavioral (non-verbal) interactions with his mother in an inclusionary playgroup setting.
4. A mother's social and behavioral (non-verbal) interactions with her young child in an inclusionary playgroup.
5. The activity context of a child and mother's social interactions.
6. The frequency and length of social episodes.

Social interaction codes describe components of the child's social interactions and the context in which they occurred. These included social turns, social episodes, interaction codes, activity context codes, and behavioral exchanges. Social turns were the basic units of interaction that were recorded in this system. They included (a) all verbal comments made by the child or by anyone who was present during the observation (regardless of whom they were directed to), (b) all vocalizations without words that were made by the child or to the child, and (c) selected non-vocal social behaviors that were made by the child or to the child. Turns were identified as follows:

1. *Verbal behavior* — Each sentence or sentence fragment was considered a separate turn. Fragments or single words that stood alone and that were separated by definite pauses were considered to be separate turns.

2. *Non-verbal behavior* — If a non-verbal behavior (such as touching) accompanied a verbal or vocal turn, the non-verbal behavior was considered to be part of the same turn. If the non-verbal behavior was separated from verbal behavior by a response from the partner, the non-verbal behavior was coded as a separate turn.

An interaction code and an adjacency code were recorded for every turn. In addition, turns received social context codes (a) context (where the social interactions took place), and (b) activity context (what mother and child were doing).

Turns that involved the child (i.e., those that were either emitted by or directed to the child) were grouped into social episodes. An episode was composed of one or more successive turns between the child and one or more social partner(s), with the exception that the turns within an episode had to occur within 15 seconds of each other (i.e., if there was at least a 15-second pause after a turn, the episode was considered to end). In addition, the turn was considered ended if one partner continued holding the floor.

Mother and child were in the same room during all the sessions and most of the time they were in the same play areas. The activity context codes describe what the child and the mother were doing in the different play areas, whether the child was playing independently, engaged in mutual play with mother, being redirected by the mother, engaged in a child care activity, or doing something that was not considered in one of the above listed activities.

The adjacency condition described the relationship of the coded behavior to the behavior of the partner. An initiated condition was the first social turn to occur between the child and a partner, mainly the mother, after there were at least 15 seconds in which the child was not involved in an interaction. For example, the child ran from the sensory table and went into the tent car and made sounds. The mother followed the child and stood in front and said, "Where's your wipers?"

Response was the turn that a person took within 15 seconds after a partner's turn. This included verbal and non-verbal turns. For instance, the child said, "I gonna be a doctor appointment." Mom said, "Oh, you gonna be a doctor?" Child nodded head up and down and took the stethoscope to put in his ears. Mom put the head of stethoscope on her chest. Child said, "I can hear it." However, no response was coded when either child or mother

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did not respond to partner within 15 seconds. An example of this was when mother said, "Where is the ball?" and the child did not respond and walked over to the table.

A continuation was coded when the partner who took the previous turn did not receive a response or did not allow time for a response within 15 seconds and continued with another turn. An example of this was when one mother said, "What color is that?" She continued after a few seconds, "Can you tell me what color the elephant is?"

When a person made a complete and exact replication of the partner's last turn within 15 seconds, it was considered an imitated condition. For example, one child said, "yuck, fingers," holding his fingers up. Mother said, "yuck, fingers," holding her fingers up. Scaffolds that built upon imitations were coded. Only those direct expansions were considered when the mother expanded the child's expressive language directly. For example, the child said, "macaroni." Mother said, "macaroni and cheese." Child said, "ball." Mother said, "That's a big red ball."

When the partner physically guided a behavior, it was considered prompted. Verbal prompts were recorded under vocal behaviors. This was evident when the clean up song started playing because the mother held the child's finger and led him to put toys away.

Behavioral exchanges included limited vocal codes, which were additions or qualifications of verbalizations such as inflection, positive statements, and negative statements. Non-vocal codes included eye contact, child's level, touch, gesture, pointing, facial expression, and conveyance of warmth.

Each verbal turn was recorded exactly in the way it was emitted by the speaker. Unintelligible words within a verbal turn were identified as "Can't understand." All words were counted. Vocalizations were identified according to their function (declarative, statement, w-question, exclamation, yes/no question, label, negative, and imperative).

5. Interview Coding System adapted from Appl, Fahl-Gooler, and McCollum (1997):

Statements made by parents were coded and put into the following categories for pre/post-interviews: (a) facilitators (supported parents, helped parents feel accepted and provided a sense of belonging in the groups, established a relationship between facilitators and parents and/or children, demonstrated planning and facilitation of the playgroup, elicited parent input and feedback, and encouraged suggestions), (b) goals (for self and for the child), (c) benefits (for self and for the child), (d) personalization (shared personal information regarding the child and/or self, and openly indicated degree of comfortableness), (e) groups (indicated strengths and concerns, identified specific components, suggested improvements), (f) differences and comparisons (commented about their personal or child's differences, provided information on child's special needs, and valued differences), (g) differences and comparisons of community child groups, and (h) other (defined play, inclusion, and their role in facilitating play). For a comprehensive listing of categories and examples see Appendix B.

PARTICIPANTS

Subjects for this project were selected on a voluntary basis from participants registered to attend weekly inclusionary playgroups and whom their special education teacher or parent educator recommended. Special education teachers were instructed to ask families on their caseloads (similar socioeconomic status who had children that were identified as Physically and Otherwise Health Impaired) if they wanted to participate in the study. All identified participants were from similar socio-economic backgrounds and had attended a previous playgroup session. Four of six families with a child eligible as Physically and Otherwise Health Impaired were identified as somewhat interested in participation. Two

consented to participate. The mother-child dyads without special needs were identified by their parent educators. Parent educators were asked to identify children in similar age groups and from a similar socioeconomic level as the identified families with young children who had special needs. The first two contacted agreed to participate. Four mother-child dyads, two involving young children 18–40 months with special needs and two dyads within the same age span without any identified delays or special needs were observed, videotaped, and interviewed. The following describes the participants.

Families of Children with Disabilities

- The two young children with special needs were identified as having a similar disability (Physically and Otherwise Health Impaired) by a multi-disciplinary evaluation team (MET). The older child (38 months) was identified as having cerebral palsy and a unilateral hearing loss, while the younger child (21 months) was identified as having endocrine problems in addition to congenital cataracts that had been removed at 6 weeks of age.
- Each child's MET report, individualized family service plan, and health records were current and available to the researcher for review.
- Cognitive levels for children with disabilities were considered within a normal range.
- Weekly home visit services were provided by a certified special education teacher using *Project AHEAD: Resources for Service Providers of Infants, Toddlers, and Young Children With Special Needs and Their Families and Child Care Providers At Home and At Daycare* (Rowan, 1997) and, *Hawaii Early Learning Program* (Parks, 1992) as primary resources.

- Each family attended one weekly hour-long inclusionary playgroup session over a ten–week period.
- Each child and parent attended playgroups during the previous school year and was enrolled in a special education parent infant program.

Families of Children Without Disabilities

- Based on their most current Ages and Stages Questionnaires Developmental Profile kept in the child's school file, the two young children without identified special needs performed at developmentally appropriate levels (communication, gross motor, fine motor, problem solving, and personal social skills).
- Each child's family service plan, Ages and Stages Questionnaires, and health records were current and available to the researcher for review.
- Monthly home visit services were provided by trained personnel (para-educators or individuals with a bachelor's degree) who used the nationally recognized models: *Parents As Teachers* (1999), and *Project AHEAD* (Rowan, 1997). PAT was designed for parents of infants and toddlers in the general population, and AHEAD for families with infants and toddlers who have special needs and their child care providers.
- Each family attended one weekly hour-long inclusionary playgroup session over a ten–week period.
- Each child and parent attended playgroups during the previous school year and had participated in other activities provided by the Birth–5 general education program

All participating children included in this study were enrolled in an inclusionary Birth Through Five Educational Program in an urban setting. Odom (2000) reported that the quality of preschool inclusion programs is critical. If the design of a program takes into account the environment, specific organization, location, and the needs of the child and family, then this excellence of programming has a better chance of occurring. In this program all home visitors (special educators and general education parent educators) have worked closely together in planning inclusionary playgroups, family meetings, and issues regarding individual child progress since the winter of 1998. Due to the nature of this collaborative relationship between general and special education, more opportunity for integrated services has been made available to families. Thus, this program had the quality characteristics recommended by Odom (2000) and Odom and McLean (1993) as necessary for positive inclusion.

Registered participants had an opportunity to attend one of two age-appropriate inclusionary playgroups offered at different times to accommodate parents' schedules. Figure 3.1 describes characteristics of each child, mother, and inclusionary playgroup in this study.

Figure 3.1: Final Participant and Playgroup Characteristics

Mother-Child Dyads	*Age Range of Group and Number*	*Gender of Children*	*Race of Children*	*Number of Special Education Children*	*Time of Group*
Child Identified as POHI Age:21 months, Race: C 1 older sibling Mother: Age: 39, Race: C Educ. Level: Some College Stay At Home Mom	19–29 months 18 Children	M–10 F–8	C–8 AA–6 H–2 Multi–2	3	TH 9:30– 10:30 a.m.
Child Identified as POHI Age:38 months, Race: AA 1 older sibling Mother: Age: 29, Race: AA Educ. Level: B.A. Employed	30–48 months 11 Children	M–7 F–4	C–3 AA–5 H–2 M–1	2	W 5:00– 6:00 p.m.
General Educ: Child Age:29 months, Race: AA 2 older step-siblings General Educ: Mother Age: 29, Race: AA Educ. Level: B.A. Employed	19–29 months 19 children	M–11 F–8	C–5 AA–7 H–5 M–2	3	T 10:30– 11:30 a.m.
General Educ: Child Age:39 months, Race: C 2 older siblings General Educ: Mother Age: 33, Race: C Educ. Level: Some College Employed	30–48 months 15 children	M–5 F–10	C–8 AA–4 H–2 M–1	1	W 1:00– 2:00 p.m.

Key: Gender: M=Male; F=Female
Race: C=Caucasian; AA=African American; H=Hispanic; M=Multi-racial
Time of Group: T=Tuesday; W=Wednesday; TH=Thursday
Educ:=Educational

The mothers who participated were from a similar socio-economic status. Three of the four mothers were employed while one mother chose to stay home with her child. All families had health insurance and had income considered within the middle-income range. This is of particular importance based on the findings conducted by Hart and Risley (1995) where variation in socio-economic status demonstrated disparity in the frequency of words generated by the parent. All of the children for this study were in the age range of 18–48 months; all were boys; two attended groups for the 15–29 month age range (one special education and one general education), and two attended groups for the 30–48 month range (one special education and one general education).

PROCEDURE

Sample

Informed consent procedures were initiated in June of 2001 by obtaining approval from the Michigan State University Committee on Research Involving Human Subjects (UCRIHS). After permission was granted by UCRIHS (August 14, 2001, Appendix A), the researcher contacted school personnel to obtain a list of parents that would meet the following criteria and who indicated a possible interest in being in the research study: families from similar socio-economic status; families who had participated in their respective programs (special/general education program) for at least six months; children from the Physically and Otherwise Health Impaired (POHI) Eligibility Category with cognition considered to be within a normal range; and children within the 18–48 month age range. Four of six families with special needs children (POHI) were identified as being somewhat interested. After sharing the UCRIHS consent form and the goals of the project,

two of the families agreed to participate. Following, recommended families with young children without special needs were contacted. The first two mothers contacted agreed to participate. All four mothers signed UCRIHS consent forms allowing permission to participate in this research project.

The selected four mother-child dyads agreed to attend a weekly inclusionary playgroup in an urban setting. Groups consisted of no more than nineteen children who were between the ages of 18 to 48 months and their respective caregivers. Diversity in culture (Caucasian, African American, Hispanic, and multi-cultural) and ability (PPI, SPL, POHI, and general population without any identified disabilities) were represented in the playgroups. A lead teacher and assistant who encouraged positive parent-child interactions facilitated each playgroup.

Setting

Playgroups were located in an urban school building. The playgroup area had its own entrance and exit, which did not interfere with the general operation of the school. The playgroup area was quite large and organized into the following well-defined spaces: housekeeping, book/toy, table activities, gross motor/block, and sensory/fine motor. Shelves and areas were labeled with copies of digital pictures and words. The entire room was carpeted and divided by furniture and area rugs. As one entered the room, a sign-in sheet, nametags, and handouts describing the weekly theme were provided. The adjoining bathroom was equipped with two toilets, one child sized and one adult sized. The playgroup was considered to be adequately supplied with developmentally appropriate materials (see Appendix D for the layout of the inclusionary playgroup setting).

DATA COLLECTION

General

Mother-child interactions were videotaped during the parent-child play time component in an inclusionary classroom conducive for young children's play located in an inner-city school during a scheduled ten–week play-to-learn session (Fall 2001) provided by the Birth Through Five Educational Program. An effort was made to videotape and transcribe six of eight sessions for each mother-child dyad. However, due to illness, technological difficulties, and the time allowed by the program for taping, four sessions (30–40 minutes each) for each mother and child dyad were videotaped. Videotaping of each mother-child dyad occurred during the free play/table activity time. Free play/table time activity length was not always consistent due to variation of when the facilitator turned on the music to transition the children and mothers into clean up time. In addition to the videotape, the researcher took field notes. These data were later transcribed, coded, and analyzed. For comparison purposes, the second, third, fourth, and fifth session attended by each dyad were used for transcriptions. An exception to this was the younger child (21 months) with special needs. During the fifth session attended, his mother reported he was not feeling well. The researcher felt that even though the fifth session had been videotaped, it would be better to videotape, transcribe, and code the sixth session he attended for comparisons.

In the spring of 2001, the Birth Through Five Educational Program held a ten–week playgroup session. All of the children for this study had attended one or more of those previously held playgroups. Therefore, all children and families were familiar with the routine and materials available in the room.

The observations were carried out by the researcher and four trained student assistants. The researcher has a history of working with parents and young children who have special needs. Throughout her career (29 years), she has been required to observe children and parents, take extensive field notes, and write observation reports. She conducted a previous pilot study as part of her practicum, where extensive field notes were taken and videotapes transcribed and coded. Prior to this study, the researcher trained the student assistants. Three practice sessions were held to discuss this research project, the importance of capturing mother and child interactions, and the operation of equipment. To avoid the effect of the presence of an observer and a video-operator, the researcher discussed with the students how to help families habituate to observation so they could relax and behave naturally.

During the observation, the researcher and student assistants tried to position themselves so as not to deter from the naturalistic environment of the classroom setting. For each observation, the researcher focused on each dyad's verbal communication but made written notes of non-verbal components of social interactions, the context, and sequence of interactions. Events were recorded as they occurred using abbreviations when applicable. Immediately following the observation, the researcher and student assistant reviewed the videotape as it was being transferred from the digital tape to VHS tape. A room adjacent to the playgroup room had been made available for this purpose. At that time, additional notes and corrections were made to the original field notes.

After the observation, the researcher used the written notes and the VHS video to prepare a detailed and complete transcript of the observation. These transcripts, and the video were reviewed multiple times and put into transcript worksheets using the computer

software program Microsoft Excel. After that, data were transferred to a data base developed for this program using Microsoft Access.

As the researcher completed each final transcription, social interaction codes were assigned to each turn, the function of each verbal utterance was identified, and the amount of words in each utterance was counted. Each verbal utterance and behavioral exchange was coded. While watching the video, a stopwatch was used to accurately measure the time mother and child spent in each area. Throughout this study, mothers were encouraged to play with their child as they typically did when they attended previous playgroup sessions.

Videotaping

Technological advances have expanded our abilities to understand interactions between parents and children (Beebe & Lachmann, 1988; Stern, 1977). Videotaping parents and children interacting has allowed us to view an interaction and then to review it to see how the interaction developed and what each partner did to influence the other's behavior (Stern-Bruschweiler & Stern, 1989). Thus, allowing the researcher multiple opportunities to review these interactions, which was critical in viewing non-verbal communication. Accuracy of transcripts was enhanced by multiple reviews of videotapes. The children and their mothers were familiarized with the video camera one week prior to filming the first playgroup session. Brief segments of this first session were videotaped but not transcribed. This helped to identify potential problems with the camera that could be critical to this study such as battery problems, camera position, and transferring digital tapes to VHS tapes. Only one mother and child were videotaped during a playgroup session allowing the researcher an opportunity to observe and focus attention on one mother-child dyad at a time.

A small, hand-held, digital camera with a wide-angle zoom lens and a high quality mounted microphone was used. This allowed the videotaping to occur more easily as the children frequently moved from area to area. A tripod with a camera was found to be cumbersome and did not allow the movement necessary, particularly in videotaping verbal and non-verbal communication necessary for this study. Even though the microphone was considered of good quality and the video-operator was relatively close to the participants, at times it was difficult to hear the children's utterances. Mounting microphones on the table also did not allow the freedom for mothers and children to move. Program facilitators felt that microphones on the table would be disruptive to their organization. Thus, microphones were not allowed to be placed in different locations around the room. Having experience with practicing videotaping on the first week of inclusionary playgroups was beneficial in that it allowed the researcher the opportunity to focus primary attention to verbalizations during subsequent observations. When verbalizations were not understood, they were coded as "can't understand." Digital tapes were transferred to VHS tapes in order to be viewed more easily by the researcher.

Interviews

How comfortable mothers felt when they interacted with their children could have a tremendous impact on the results of this study. Therefore, the researcher analyzed pre- and post-interview data to determine the level of comfortableness among participants. Appl, Fahl-Gooler, and McCollum's (1997) study examined how comfortable mothers of children with special needs felt while attending inclusionary playgroups. They cited as a limitation of their study the length of time from attendance in the playgroups until they actually interviewed participants. In addition, they discovered that parents of children with

disabilities want to have input with respect to their feelings. For this reason, the researcher felt it critical to interview mothers before and immediately following attendance to inclusionary playgroups to share their feelings and experiences. Parents' understanding of play, inclusion, how they facilitate their child's play, and general feelings of comfortableness were examined. One–time interviews that last one hour or less are not likely to provide the depth of information with respect to a participants' thoughts, ideas, or beliefs (Rubin & Rubin, 1995). Therefore, each mother was interviewed prior to the videotaping and at the conclusion of the play-to-learn group sessions in an attempt to gain more insight into her perceptions. Each interview lasted approximately one hour and was audiotaped. Since interviewing is considered both a research methodology and a social relationship (Seidman, 1991), the researcher tried to strike a balance in preserving the autonomy of each mother by keeping the focus of attention to the experiences they had with participants in the playgroup setting. The relationship that was developed with the participating families was critical in developing a balanced rapport that was necessary for the interview process to occur more fully. Seidman (1991) discussed the importance of this relationship as a balancing act to developing an appropriate rapport with each participant. He further implied that rapport implies getting along with each other, a harmony with, but that one must be careful of the "we" relationship that can develop. For that reason, the researcher was careful to try to maintain a positive balance with the relationship that grew over the weeks required for videotaping. Audio-taped interviews were transcribed of interviews using a laptop computer. Written transcriptions were coded, compared, and data categorized.

Data Analysis

Inclusionary Playgroup Observations

Mother-child interaction was examined with the following questions guiding the analysis. What type and frequency of non-verbal cues do participants use? What types of verbal interactions are used by participants in relationship to adjacency condition, activity context, kinds of utterances, and number of words? What kinds of positive and negative interactions are shared between mothers and their children? And what is the frequency and length of social episodes (turns) mothers and children engage in?

Individual utterances as well as extended utterances were analyzed by the researcher using an adaptation of Hart and Risley's (1995) Juniper Coding System (Appendix C), and non-verbal categories taken from the SKI*HI parent interaction observation checklist form C (Watkins, 1993). A Microsoft Access program was developed to include all of the necessary categories required to answer the research questions for this study. The Access program allowed the researcher to filter individual items based on specific categories. A few examples of filtering data are included in the following: (a) family ID, mother, kinds of utterances (imperatives), and context (where–what area); (b) family ID, mother, kinds of utterances (imperatives), activity code (what they were doing); (c) family ID, mother, context (where–what area), negatives; (d) family ID, mother, negatives, activity code (what they were doing); and (e) family ID, mother, adjacency condition (continuations) context (where–what area). Data can be filtered even more specifically when looking at individual observed sessions. Making comparisons of interactions from the first videotaped session to the last session videotaped could be extremely useful in looking at changes in interactions. The choice in using this program to analyze data was based on its tremendous ability to filter data in a variety of combinations. Being able to filter the data, allowed the researcher

to look at specific elements needed to answer the research questions. Verbal and non-verbal turns were more easily analyzed using this system. Other systems were available and reviewed, but did not seem to meet the needs of the questions since a major portion of this study looked at non-verbal behaviors. Non-verbal aspects of communication have been recorded as being extremely important in getting and holding attention and in helping to get messages across to children. Support for non-verbal communication has been cited in research, which indicated, "93% of the impact a parent has on a young child is due to the non-verbal aspects of communication...touch, gestures, inflection, and facial expression," and "7% is due to the actual words that are used" (Mehrabian cited in Clark & Watkins, 1985). Thus, this program was developed to include verbal and non-verbal aspects of communication.

Reliability for Observed Transcripts of Inclusionary Playgroups

The researcher and a graduate assistant thoroughly reviewed the adapted coding system prior to coding any sessions. One randomly selected transcript was coded together by the researcher and graduate assistant to ensure that coding for categories was clearly understood. Any issues or confusions raised were clarified before scoring additional videotapes and transcriptions. Next, 20% of the remaining videotapes and transcripts, one for each of the three remaining mother and child dyads, were given to the graduate assistant to view and code for reliability purposes. Reliability was calculated separately for the social and linguistic interaction categories. The graduate assistant that assisted with reliability coding has a 23–year history of working with families who have children ages two through five. Before her graduate study in early childhood education, she was principal of an early childhood/kindergarten bilingual program.

An agreement in coding was counted when the two observers coded the same information. For example, to score an agreement on a social interaction code, such as adjacency condition, both observers had to assign the same function to the turn. The following categories were coded: interaction code, adjacency condition, activity context, inflection, eye contact, child's level, touch, gesture, pointing, facial expression, negative statements, positive statements, and conveyance of warmth. To score an agreement on a linguistic code, such as kind of utterance, both observers had to assign the same function to the utterance. The following categories were coded: utterance, word count, and kind of utterance. Reliability was calculated separately for each social interaction and linguistic code category with the following formula:

$$\text{Agreements}/(\text{Agreements}+\text{Disagreements}) \times 100\%$$

Percentage agreements computed for social interaction codes ranged from 60% to 100% with a mean of 89.8%. Percentage agreements computed for linguistic interaction codes ranged from 89% to 97% with a mean score of 93%. Whenever disagreement occurred, the researcher and graduate assistant reviewed the segment until 100% agreement was achieved. Following this procedure, the researcher coded the remaining data independently. Every time the researcher had a question regarding a social interaction or linguistic code, the graduate assistant reviewed the segment with the researcher until mutual agreement was reached.

Pre- and Post-Interviews

The discourse of pre- and post-interviews with participating mothers was analyzed for the level of comfortableness they shared in their exchanges. An adaptation of Appl, Fahl-Gooler, and McCollum's (1997) interview coding system was used as the framework to

analyze the transcribed interviews. The following categories were added to provide additional information relative to the purpose of this study: specific acknowledgment of comfortableness, definitions of play, definitions of inclusion, and how mothers facilitated their child's play. Given that the interview protocol was used prior to and after the playgroup sessions, the protocol was changed slightly for the initial interview to reflect how participating mothers might feel, whereas the interview at the end of the sessions demonstrated how participating mothers actually felt. Observing differences in their responses pre and post enhanced the researchers understanding of their level of comfortableness.

Reliability for Transcripts of Pre- and Post-Interviews

Each transcription was coded and analyzed by the researcher and a parent-infant educator to ensure reliability. This parent-infant educator has thirty years experience working with young children who have disabilities. Her current position, which she has held for the past three years, has been specifically to work with families who have young children with special needs in a home-based setting. Codes assigned to transcriptions were discussed with the researcher and the parent-infant educator until 100% agreement was achieved for designated coded categories. All eight transcriptions were coded and analyzed in this manner.

CHAPTER IV:

RESULTS

The purpose of this study was to determine if differences existed in the way mothers interacted with their young children in an inclusionary playgroup: children with special needs and children without special needs. Several figures represented in this section of this thesis are presented in color. When describing the results, participants were identified according to Figure 4.1.

Figure 4.1: Participants' Identifiers

Identifier	*Description*
MCS1	Mother of 21-month-old child with special needs
CS1	21-month-old child with special needs
MCS2	Mother of 38-month-old child with special needs
CS2	38-month-old child with special needs
MC1	Mother of 29-month-old child without special needs
C1	29-month-old child without special needs
MC2	Mother of 39-month-child without special needs
C2	39-month-old child without special needs

Percentages of the type and frequency for a specific social interaction were based on an individual's number of turns. For example, out of a total of 1,151 turns, one mother had

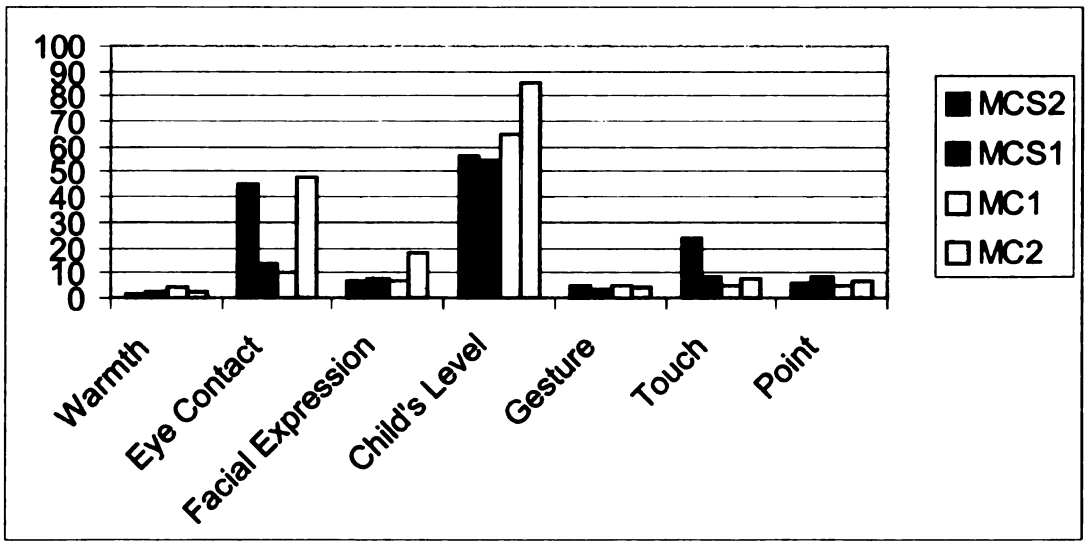
333 behavioral exchanges without words (29%). Percentages were taken into consideration when making comparisons. Calculations were rounded to the nearest tenth.

In addition to viewing the differences in interaction, the researcher attempted to discover how comfortable mothers were while attending inclusionary playgroups by completing, transcribing, and coding pre- and post-interviews with participants. Results for both parts of this study are described next.

Differences in the Type and Frequency of Non-Verbal Cues

Question number one of this study investigated the differences in how mothers communicated with their young children (with and/or without special needs) using the following non-verbal cues: (a) warmth, (b) eye contact, (c) facial expression, (d) child's level, (e) gesture, (f) touch, and (g) point. The percentages in Figure 4.2 are based on each mother's non-verbal communication in relationship to their individual total turns.

Figure 4.2: Non-Verbal Communication of Mothers



The mothers of children with special needs showed less percentage of demonstrating conveyance of warmth (MCS1=2.5%; MCS2=1.5%; MC1=3.9%; and MC2=2.8%). The differences between all mothers is minimal. Mothers of the children without special needs conveyed more warmth during mutual play, whereas MCS1 and MCS2 displayed more warmth in the activity context "other" category.

With respect to eye contact, MC2 (48.2%) and MCS2 (45.4%) used more eye contact than MC1 (10.1%) and MCS1 (13.8%). MC2 generated eye contact during 48.2% of her turns and MCS2 generated eye contact during 45.4% of her turns. MCS2 and MC2 were the mothers of the older toddlers. Three of the four mothers generated more eye contact during mutual play. MCS2 used more eye contact during redirecting. In fact, she used more redirection than any other parent. Since parents of special needs children often feel even more compelled to assist their child in learning, they tend to take a teacher-student role rather than a parent-child role (Marschark, 1997). Redirection can be considered as part of the "teacher" role.

Three of the four mothers—MCS1, MCS2, and MC1—were very similar when using facial expression. Facial expression was used significantly more by MC2. Percentages were as follows: MCS1=7.6%; MCS2=6.5%; MC1=7.2%; and MC2=18.1%. All mothers used more facial expression while participating in mutual play. Play gives permission for participants to act silly, thus, this may be one reason why more facial expression was used during mutual play.

Both mothers of children without special needs spent more time on their child's level (MC2=85.9%; MC1=65%). Mothers of children with special needs were very similar with MCS2 at 56% and MCS1 at 55%. All mothers remained on their children's level more often while participating in mutual play.

All mothers were fairly similar in their use of gestures. MCS1 (3.2%) used gestures the least amount while MC1 (5.3%) used gestures the most. MCS2 (4.8%) and MC2 (4.6%) were quite similar. All mothers used more gestures when engaged in mutual play except for MCS1. All mothers used gestures in different context areas (MCS1–sensory/fine motor; MCS2–table; MC1–gross/motor block; MC2–housekeeping).

Both mothers of children with special needs used more purposeful touching than mothers of children without special needs. MCS2 (24%) and MCS1 (9%) used touching as a means of redirecting or trying to get their child's attention in the table activity area and gross motor area, respectively. These findings may indicate that since MCS2's child is older, she may be more concerned that he complete projects put forth by facilitators as a way of preparing him for school. MCS1 may have used more touch in the gross motor/block area due to her concern that he may get hurt. The other mothers (MC1=5% and MC2=7.2%) used touch during mutual play and in the housekeeping area. These mothers used more playful touch.

In general all mothers pointed about the same percentage of time (MCS2=6.2%; MC1=5.2%; MC2=7%). Yet, MCS1 pointed the most (8.9%). All mothers used more pointing during table activities. Mothers of older toddlers pointed for teaching and redirecting, while mothers of younger toddlers used more pointing during mutual play. Examples of this included the following: MCS2 said, "Put the animal on the paper," as she pointed. Whereas, MCS1 said, "Look at that," as she pointed to items in the sensory table.

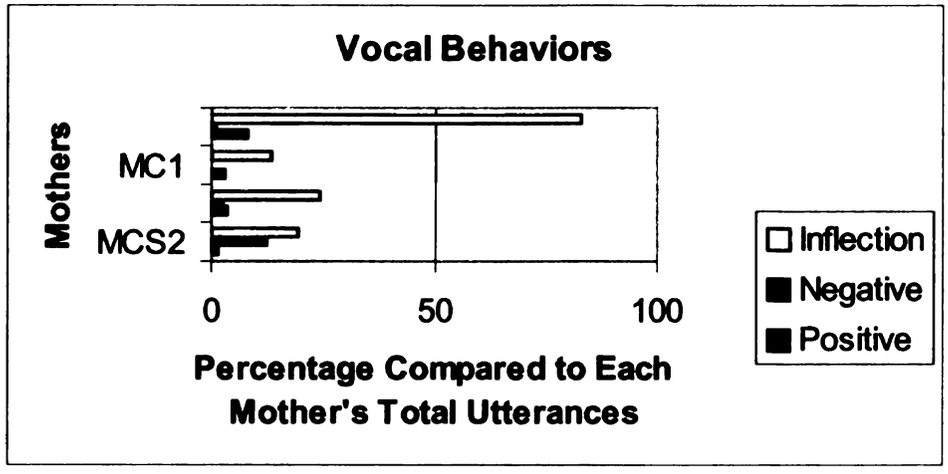
For C2 and CS2 (older toddlers), table activities may have been the area where most pointing occurred due to the importance mothers assigned to getting their child ready for school. These feelings were expressed during the pre- and post-interviews. Mothers identified projects as an important part of playgroups.

The final analysis of the data found that there were few differences in the ways mothers of children with special needs and mothers of children without special needs communicated non-verbally to their young children. The major differences were noted in the category of touching behaviors and being on their child's level. Mothers of children with special needs touched their children significantly more than the other mothers and were not on their child's level as frequently as mothers of children without special needs. Even though mothers of children with special needs conveyed less warmth, the difference did not appear significant.

Differences in Types of Mother's Verbal Interaction

Question number two of this research investigation addressed how mothers communicated verbally to their young children with and/or without special needs. Verbal interaction included the following categories: (a) inflection, (b) negative statements, (c) positive statements, (e) kinds of utterances, and (f) frequency of words. Figure 4.3 identifies categories inflection, negative statements, and positive statements.

Figure 4.3: Comparison of Vocal Behaviors of Mothers



MC2 (83%) and MCS1 (25%) produced more utterances with interesting inflection. However, MC1 (13.2%) accompanied her utterances with the least amount of inflection. MC1 and MCS1 used inflection in the gross motor/block area, while MCS2 used more inflection in the table activity area and MC2 in housekeeping. All mothers but MCS2 used more inflection while participating in mutual play, whereas MCS2 used more inflection when redirecting her child.

The percentages of negative statements used by mothers were as follows: (a) MCS1=2.5%, (b) MCS2=12.7%, (c) MC1=0.4%, and (d) MC2=1.2%. These differences appeared significant. MC1 and MCS1 generated more negatives in the sensory/fine motor area, MCS2 in housekeeping, and MC2 in book/toy and table activities. Most of the negatives used by MCS2 happened when she was redirecting. The remaining three mothers used more negative statements during activity context "other" category.

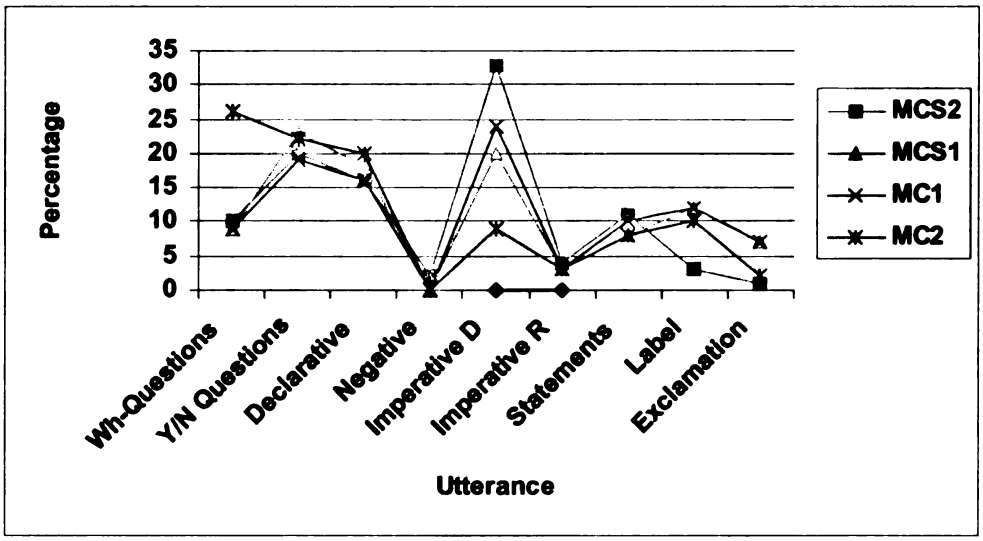
With respect to positive statements, MC2 (7.7%) generated the most positive comments to her child. Her child, however, generated the least amount of positive statements and the greatest amount of negative statements compared to all of the other children. This raised question with regard to the concept of modeling. In this case MC2 modeled positive behavior, yet, her child did not replicate her model. In addition, it is uncertain how this mother communicates in other environments. Perhaps, she uses more negatives in different settings. The use of positive comments for the other mothers are reported as follows: (a) MCS1=3.5%, (b) MCS2=1.7%, and (c) MC1=2.8%). Both mothers of children with special needs generated the majority of their positive comments in the sensory/fine motor area. MC1 generated more in the gross motor/block area while MC2 in the table activity area.

The final analysis for inflection, negative statements, and positive statements show several similarities. A major difference, however, was noted in the use of negative statements. There did not appear to be any significant difference in inflection based on mothers of children with special needs as compared to mothers of children without special needs. Inflection appeared to be related to the mother's style when playing. All of the children used more inflection when involved in mutual play. Notable differences were observed in the amount of negative statements that mothers of children with special needs generated to their children as compared to mothers of children without special needs. Both mothers of the children without special needs generated more positive comments to their children during mutual play, whereas the mothers of children with special needs generated more positive statements during the activity context "other" category. Mothers of the children with special needs children may have felt more compelled to teach their child rather than to engage and enjoy playing with their child.

Kinds of Utterances

Figure 4.4 represents the kinds of utterances mothers used. Utterance percentages were calculated using the number of times the kind of utterance was used divided by the total number of turns with words. Negative statements in this grouping were statements where "No" was used in isolation to express refusal or denial, it was considered a negative kind of utterance. For example, mother asked the child if he wanted to do a table activity; child answered, "No." Imperatives were grouped by whether they were directing or requesting. Figure 4.4 demonstrates each mothers' use of kinds of utterances.

Figure 4.4: Kinds of Utterances for Mothers



With regard to questions, MC2 generated more Wh-questions than any other mother. MC2 generated 26% Wh-questions of her total utterances (verbal turns); MC1=9%; MCS2=10%; MCS1=9%. Analysis of the discourse involving questions was further evaluated to see how the questions asked fit into Bloom's Taxonomy of the Cognitive Domain (knowledge, comprehension, application, analysis, synthesis, and evaluation) (Bloom, Engelhart, Furst, Hill, & Krawthwohl, 1956).

Most of the questions used by mothers was at the knowledge level, however, some of the questions generated were at higher levels. The mothers of children with special needs asked fewer higher-level Wh-questions during the four taped sessions. Of MCS2's total number of Wh-questions, 4% were considered higher-level questioning, for example, "Why can't I put that right there? What happened?" MCS1 had 7% at higher levels, for example, "What does that do? How are you going to get out?" MC1 had 13% at higher levels, as in "What does it smell like? What do you use this for?" MC2 had 11% at higher levels, such as "How are we going to eat if you have all of the silverware? What happened?"

According to Hart and Risley (1995) about 15% of the questions parents provided younger children were "What?" or "Huh?" Findings in this study did not support that fact. "Huh?" was used very infrequently, twice by MCS2 and four times by MC1. The question "What?" was used, but rarely in isolation. "What? Where? and Who?" were the most frequently used questions by all parents, with MC2 using the most variety in her questioning. Parents directed their children's attention through questions to what the children should notice. Hart and Risley's (1995), study showed that parents maintained interaction by often asking hard questions and supplying the answers themselves. This pattern was apparent in this discourse analysis.

The percentage of yes/no questions, declaratives, negatives (only including "no" statements), and statements were similar among the group. It was the imperative utterance used for giving direction that seemed to show the greatest difference. Thirty–seven percent (37%) of the utterances for MCS2 were considered imperatives, while MC2 used only 12%. MCS1 (23%) and MC1 (27%) were more similar with their use of imperatives. Labeling was fairly similar except for MCS2 who used only 3% of her utterances for labeling. Since MCS2 reported that her child "talks a lot," she may not see a real need to label objects. MC1 and MCS1 (younger toddlers) used exclamations more frequently.

When looking at the context and activity context, Figure 4.5 identifies where each kind of utterance occurred most often, and describes what the mother and the child were doing when these frequent utterances happened. For example, MCS1 used more Wh-questions in the housekeeping area for teaching. Whereas, MC1 used more Wh-questions in the housekeeping area while engaged in mutual play.

Figure 4.5: Contexts and Activity Context Where Mothers Generated Most Utterances

Kind of Utterance	*Identifier*	*Context*	*Activity Context*
Wh-Question	MCS1	Housekeeping	Teach
	MCS2	Book/Toy	Teach
	MC1	Housekeeping	Mutual Play
	MC2	Housekeeping	Teach
Y/N Questions	MCS1	Gross Motor/Block	Mutual Play
	MCS2	Table Activities	Mutual Play
	MC1	Housekeeping	Mutual Play
	MC2	Housekeeping	Mutual Play
Declarative	MCS1	Gross Motor/Block	Other
	MCS2	Book/Toy	Mutual Play
	MC1	Housekeeping	Mutual Play
	MC2	Housekeeping	Mutual Play
Negative "No" only	MCS1	Gross Motor & Transition	Other
	MCS2	Table	Redirecting
	MC1	Book/Toy	Redirecting
	MC2	Table	Other
Imperative	MCS1	Gross Motor/Block	Mutual Play
	MCS2	Table	Redirecting
	MC1	Gross Motor/Block	Mutual Play
	MC2	Table	Mutual Play
Statements	MCS1	Gross Motor/Block	Other
	MCS2	Table	Other
	MC1	Housekeeping	Mutual Play
	MC2	Housekeeping	Mutual Play
Label	MCS1	Sensory/FM	Teach
	MCS2	Table	Teach
	MC1	Table	Mutual Play
	MC2	Housekeeping	Mutual Play
Exclamation	MCS1	Gross Motor/Block	Mutual Play
	MCS2	Sensory	Mutual Play
	MC1	Gross Motor/Block	Mutual Play
	MC2	Housekeeping	Mutual Play

The activity context that seemed to enhance more variation of utterances was mutual play. Three of four mothers used the majority of Wh-questions to teach and all mothers used more Y/N questions while mutually playing. The use of "no" was the only grouping that did not occur during mutual play. Areas that showed more frequency for different utterances for the mothers of children with special needs were the book/toy, table activity, and gross motor/block as described in Figure 4.5. The other two mothers showed more frequency for different utterances in the housekeeping and gross motor/block areas. Thus, a common area for both groups was the gross motor/block area. For the mothers of young children with special needs, the concept of teaching was seen more frequently than with the other two mothers.

Final analysis suggests that mothers of children with special needs ask fewer higher-level questions than mothers of children without special needs. The questions Who? What? and Where? were used most often by all mothers. The declarative, yes/no question, "no" statements, exclamations, and labeling were considered quite similar for all mothers. It was the imperative utterance that showed the most difference. Mothers of children with special needs as a group tended to use the imperative utterance more often. The percentage of utterances appeared to be enhanced when all mothers were engaged in mutual play.

Frequency of Words

Figure 4.6 demonstrates the number of words, total number of turns, the mean length of utterance (MLU, average number of words per turn), and the average number of words per minute generated by each participant during the four videotaped, transcribed, and coded inclusionary playgroup sessions. The last two columns identify the context where the

greatest numbers of words were used and the activity context, which designates the activity that produced the most words.

Figure 4.6: Frequency of Words

Mother Child	*Total Number of Words*	*Total Number of Verbal Turns*	*Mean Length of Utterance (MLU) (Words)*	*Average Number of Words Per Minute*	*Context For Most Words*	*Activity Context For Most Words*
With Special Needs						
MCS1	3,001	687	4.36	22	Sensory/ Fine Motor	Mutual Play (37%)
CS1	156	117	1.33	1.02	Sensory/ Fine Motor	Mutual Play (35%)
MCS2	3,559	818	4.35	24.5	Table Activities	Redirecting (37% of total words)
CS2	1,679	560	2.99	12.33	Sensory/ Fine Motor	Mutual Play (36%)
Without Special Needs						
MC1	3,036	729	4.16	24.5	Book/Toy	Mutual Play (59%)
C1	468	191	2.45	3.33	Housekeeping & Table	Mutual Play (58%)
MC2	4,640	1,017	4.56	30.5	Housekeeping	Mutual Play (48%)
C2	730	313	2.33	4.66	Housekeeping & GM/Block	Mutual Play (55%)

Mothers of children without special needs generated more words to their children than mothers of children with special needs. Their average number of words per minute was 27, as compared to 23 words per minute for mothers of children with special needs. Words per minute were calculated by taking the total number of words and dividing that by the

amount of time. The MLU per turn showed more similarities than differences. All were in the 4–5 word per utterance range. This was calculated by taking the total number of turns minus the turns without words divided by the number of words generated by each participant. All but one of the mothers used more words while engaged in mutual play. MCS2 used more words while redirecting her child.

CS2 averaged more words per minute and more turns than all of the other children. His verbal skills were considered a definite strength. When comparing the mean length of utterance, the children ranged from 1–3 words. CS1 generated fewer words per MLU; CS2 produced the most at 2.99 words per MLU. The children without special needs were very similar with C1 having a MLU of 2.45 words and C2 an MLU of 2.33 words. Two of the children used more words in the same context as their mothers (CS1 and C2). CS2 used most words in the sensory/fine motor area. This coincided with his mother's second highest area where she produced 27 words per minute. All of the children used more words while engaged in mutual play.

Differences in Amount and Length of Social Episodes

Research question number three aimed to find out if differences existed in the amount and length of episodes of social interaction (turn-taking) or floor holding (continuations) generated by mothers of young children with or without special needs. A total of 7,637 turns were transcribed, coded, and analyzed, out of which MCS2 executed 1,151 turns, MCS1=886, MC1=903, and MC2=1,163. Turns were viewed in two separate ways: turns that involved only a behavioral exchange (no words) and turns that involved words with or without behavior. The mothers of children with special needs used a greater percentage of turns without words than the mothers of children without special needs (MCS2=29%;

MCS1=22%; MC1=19%; and MC2=13%). As a minimum, a social episode occurred when one individual took a turn followed by the other individual taking a turn. Some examples of each family's turns are presented in the following.

MCS2/CS2

Child: "Mama, I want chair," as the child picked up the chair.

Mother: "You got it," mom looked at him.

Child: "Mama, I want to bring it over," as he carried the chair closer to mom.

Mother: "You can sit right here," as mom helped child put the chair down.

Child: "Right here?" as child grabbed the chair and looked at mom.

Mother: "You got it," as she nodded her head up and down.

Child: "Mama, help me," as he tried to sit in the chair.

Mother: "Ok, say please."

Child: "Please."

Child continued so the social episode ended with 9 turns.

MCS1/CS1

Mother: "Yes, I found it," as mother held up a clock.

Child: "It clock," looking at mom.

Mother: Handing the clock to the child, "Do you like it?"

Child: "Clock."

Mother: "Yes, it is," looking at child.

Child: "Clock," putting it down on the table.

Mother: "Is that your favorite thing?" as she looked at him.

Mother continued so the social episode ended with 7 turns.

MC1/C1

Child: Got play blood pressure cuff as mom watched.

Mother: Gave child her arm and looked at him.

Child: Put cuff on her arm.

Mother: "You hurting mama's arm."

Social episode ended as mother continued with a repetition of her last utterance. Thus, this episode contained 4 turns.

MC2/C2

Mother: Pointing to play knives, "Are these dangerous?"

Child: Nodded head yes.

Mom: "They don't let little kids play with them, do they?"

Child: Shook his head no as he put some silverware in the tray.

Mother: "Where does this red one go?" as she held up a red spoon.

Child: He took the spoon and put it into the correct spot.

Mother: "Good job," as mom smiled and looked at him.

This episode ended as mom continued with another turn. This social episode had 7 turns. Social episodes in this study had as few as two turns and a maximum of nineteen turns.

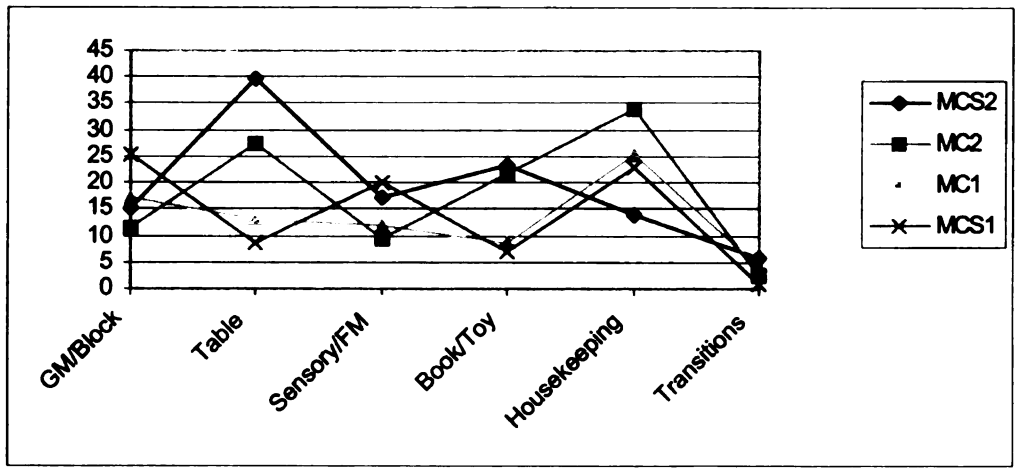
Figure 4.8 demonstrates the number of social episodes for each mother-child dyad. Social episodes (alternating turns) represented in Figure 4.7 are based on the average number of turns for each context area over four sessions.

Figure 4.7: Average Number of Turns Over Four Sessions

Area	*MCS2*	*MCS1*	*MC2*	*MC1*
Gross Motor/Block	15.25	25.5	11.25	17
Table Activities	39.75	8.75	27.5	13
Sensory/Fine Motor	17	20	9.5	12
Book/Toy	23.5	7	21.5	8.5
Housekeeping	13.75	22.75	34	25.25
Transitions	5.75	1	2.5	4.25

The housekeeping area promoted more social episodes (alternating turns) than any other area. This supports Vygotsky's theory regarding representational play where make-believe play within a socio-cultural context serves as an influential zone of proximal development (Berk & Winsler, 1995). This, in turn, can advance children to higher levels of cognitive development. The housekeeping area fosters an environment where imaginary situations and representational play can occur.

Figure 4.8: Average Number of Social Episodes for Each Mother-Child Dyad



MCS2 and MC2 demonstrated similar turn-taking trajectories except with respect to the housekeeping area. MC1 and MCS1 exhibited a similar course except in the sensory/fine motor context. Even though dyads spent different amounts of time in each area, they tended to show similar patterns in the average number of social episodes they produced. There did not appear to be any significant difference between mothers of young children with special needs and mothers of children without special needs in the number of social turns. Age seemed to play a more important role with respect to differences.

When analyzing social episodes per minute (social episodes for all sessions/time over four sessions), the following data emerged: (a) dyad, MCS2/CS2=3.47 social episodes per minute; (b) dyad, MCS1/CS1=2.65; (c) dyad, MC1/C1=2.58; and (d) dyad MC2/C2=2.93. A smaller number per minute could indicate longer social episodes, or could indicate time in which one partner tended to hold the floor longer not allowing for the social dance as described by Hart and Risley (1999). It was the give and take that was seen as critical in fostering positive communication. Therefore, the researcher further analyzed the data by figuring the percentages of longer versus shorter social episodes. Since the give and take of partners was considered important, social episodes longer than six turns were considered to enhance the social dance more. The mothers of the children without special needs and their children had a larger percentage of social episodes that were seven turns or more. The percentage for dyad MCS2/CS2 was 16%, dyad MCS1/CS1=14%, dyad MC1/C1=17%, and dyad MCS2/C2=18%. Although the percentages for dyads with children who had special needs were less, the range was not considered significant.

MC2 held the floor 38% of her total turns, MCS2=27%, MC1=39%, and MCS1=38%. All mothers responded to their children with similar percentages:

MCS2=47%, MCS1=8%, MC1=49%, and MC2=47%. Mothers of children with special needs used more prompts in their interactions: MCS2=13%, MCS1=6%, MC1=3%, and MC2=3%. This may or may not be directly related to their child's disability. Berk and Winsler (1995) discussed the consequence of changing the way a child participates in activities of his/her culture (play culture). According to their review of Vygotsky's theory, limiting full participation can limit the development of higher-cognitive functioning. Data raised the question of parental prompting as a way of controlling how a child participates in activities.

Since the literature indicated that fluency and number of communication units were greater in the block context, the researcher examined that area to identify if results coincided with Isbell and Raines' (1991) findings. Twenty–five percent (25%) of all social episodes were in the housekeeping area and 18% were in the gross motor/block area. This difference could be due to the fact that the block area was combined with gross motor activities, possibly luring the children away from playing only with blocks. The inclusionary playgroup was designed to meet the needs of all students, thus the researcher could not separate activities.

Final data analysis with respect to social episodes suggests that the number of turns generated by each dyad seemed to be related more to age than to disability. The older toddlers and their mothers generated more total turns than the younger toddlers and their mothers. Mothers of children with special needs produced a greater percentage of their turns without words and used more prompts than the mothers of children without special needs. Of all context areas, the housekeeping area appeared to produce the most social episodes. Dyads demonstrated similar patterns in the average number of turns they took. However, mothers of children without special needs tended to have a greater percentage of

turns that were 7 turns or longer. In addition, mothers of children without special needs held the floor longer. When the mothers engaged and sustained the conversation, they allowed their child more language opportunities as a partner in conversation. All mothers responded to their children with similar percentages.

Differences in Parental Perceptions

Data that answers question number four of this research investigation, "Is there a difference in parental perceptions as to how they feel about playgroups?" and "Are there differences in they way they define certain terms?" is presented in sub categories that correlates with the coding system: (a) level of comfortableness and support for parents; (b) goals and benefits of the group; and (c) definition of play, inclusion, and their role in facilitating their child's play.

Level of Comfortableness, and Support for Parents

All mothers indicated that they were comfortable sharing information about their child with other individuals in the group and other individuals in the community. There did not appear to be a difference with the level of comfortableness among mothers. MC2 and MC1 responded with comments such as "I am very comfortable," and "I'm easy-going and there is no shyness about not being personal." MCS2 and MCS1 gave comparable statements about their level of comfortableness: "Very comfortable...I always have been as far as sharing formation about (child's name)...Don't know why, but I guess the more I talk about it, the more people you talk to, the better you feel," and "I'd have to say I felt very comfortable...always comfortable...I never felt like an outsider."

Both mothers of children with special needs indicated that it was difficult to access other community groups, such as swimming, karate, Sunday school, and story hour at the library. Thus, the inclusionary playgroup provided their children an opportunity to interact with the general population. They stated that the groups "made you feel welcomed," "always were very friendly," and that "nothing impeded a sense of belonging." They both specified how the facilitators encouraged them to interact and were there as a support system. Fear of trying things at home was somewhat eased by trying new things at playgroups. MCS1 stated, "I was freaking out to let him try new things...the ladies knew all about choking, so I felt very confident letting him eat there...I felt safer."

All mothers indicated that they felt they were listened to. MCS2 and MCS1 stated the following: "They (facilitators) were just there...asking for my suggestions...just the way they looked at me, the way they talked to me...lot of eye contact showed me they listened to me," and "The survey was a good way to ask for feedback...I suggested they move sing song time along and they listened...they changed it." Mothers of children without special needs gave similar responses.

Additional evidence to support their level of comfortableness was demonstrated through the personalization of the information they shared. Mothers discussed barriers, however, all of the barriers (work schedules, being tired, and choosing a session that was a bad time for their child, but a good time for them) did not inhibit them from attending.

Goals and Benefits of the Groups

MCS1 indicated in both the pre- and post-interview a sense of isolationism. She was a "stay-at-home-mom" and acknowledged a desire to network with other parents. Thus, this was a primary goal for her, one that was repeated throughout the interview. One major

theme that emerged was her criticism that the structure of the group did not allow time for parent-to-parent communication other than snack time. She commented that she realized the primary goal of the group was to "promote the interaction of parent to child," but that she would like "more sharing time with parents." She suggested that parents meet outside of playgroup on an individual basis. Her comments suggested that she did not feel her goal had truly been met.

Other mothers indicated the same goal to network with other parents, but that goal did not appear to be their major concern. MCS2, MC2, and MC1 indicated that a primary goal of playgroup was to interact with their child: "If we were at home, I would find several other things to be doing...like cleaning or something else to be doing instead of playing with him...I like that one-to-one interaction; It forces me to play with him, instead of saying go play, I say come and play with me; Playgroup enhances my relationship with my son...I need to learn also how to play with him so he can learn." Since these three mothers work, playgroups may be fulfilling a need of forced interaction allowing parents to believe that they are spending quality time with their children.

MCS1 saw playgroup as an extension of what she had taught her child: "He learns most of his colors and letters and things like that from me, but it (playgroup) reinforces it in a different environment." Her primary goal for her child was to be able to interact with other children his age. This was a similar goal expressed by all parents. In addition, all mothers stated that they saw the playgroup as a way to prepare their child for school and liked the attention their child received from the facilitators: "They gave him special attention; When you see someone else interacting with your child ...that gets you motivated." School readiness seemed particularly important for mothers of the older children. All mothers specified that the goals for their children had been met.

Strengths of the groups for mother of young children without special needs centered around activities provided during the groups such as finger plays, centers, themes, and age-specific activities. MCS2 and MCS1 provided more personal information about their feelings and when discussing the strengths of the groups: "I love the fact that parents are allowed to stay with their children; love the fact that parents can exchange ideas and thoughts; I really like to see how he interacts with children his own age while I am there." Both parents indicated the importance and possibly a sense of security in being able to be there with their children. Another key issue raised as a strength of the group, was the fact that the group supported diversity: "He is going to be a more well-rounded person... because he is not just around one particular race, disability, or personality...that may be kind of far fetched since he is only three...but that is how I feel."

Definition of Play, Inclusion, and Their Role in Facilitating Their Child's Play

All mothers had similar definitions of play and seemed to personalize information more in the post-interview than in the pre-interview phase. Play was identified as interaction between parent and child, having fun, learning, exploring, and sharing new experiences. Mothers indicated the importance of play as necessary for learning.

When discussing inclusion, the mothers of the children with special needs saw inclusion as a way to have their child participate in the normal day-to-day activities. MCS2 referred to her child as having a disability and referred several times to his specific disability. However, MCS1 referred less often to her child as having a disability and used the words "special needs" in her description. MCS2 indicated her support for inclusion with the following description:

> I like it (inclusion). It is not just a separate playgroup for children with disabilities. I like (child's name) being around other children without disabilities because to me (child's name) doesn't know he has a disability...so I don't want him...I mean it is good for him to be around children with disabilities, but also I can see him trying to keep up and that makes me feel good...I can see him trying to keep up with children who don't have a disability. So I really like that because they are not separated.

Her poignant description supports the literature and the importance of inclusion for parents. MC1 and MC2 also supported the concept of inclusion. MC1 saw inclusion more as a benefit to children who have special needs rather than to her child. MC2 on the other hand, described inclusion as a benefit to both groups: "Inclusion means bringing children with special needs and children that do not have special needs together to learn from each other different ways other children live...different ways other children play...I think this makes children more tolerant of other people that are different from themselves."

When analyzing how parents felt they facilitated their child's play, they all responded with similar answers. All mothers indicated that they would let their children choose activities in which they wanted to participate. They would go along with what their child chose most of the time and that they would have fun playing together. Choice was seen as important by all parents; however, parents indicated they would encourage their children to try different activities. But in the end, the child would ultimately be the leader of the play. During the observations, the researcher felt that the children generally chose where they wanted to play. Mothers tended to follow their children's lead, except during table activities. It seemed that mothers asked their children more often if they wanted to go do a specific project at the table. Children appeared willing, but especially with the younger children, the mothers looked as if they used more encouragement. The older children seemed more interested.

Clearly, the participating dyads viewed the observed inclusionary playgroups as a benefit to them and to their children. By their comments, mothers experienced a sense of belonging, received support from the facilitators in the playgroups, and they felt comfortable. The way a program is designed and operated can enhance parents' self-esteem and motivation for participation (Fallon & Harris, 1992). Just as Fallon and Harris concluded, this program appeared to provide the necessary elements that would enhance parents' self-esteem and motivation. Thus, parent-child interactions should be at an optimum level. Therefore, observations for this study were considered to be true.

CHAPTER V:

DISCUSSION

The purpose of the study was to identify if differences existed in the way mothers communicated with their young children (children with and without special needs) in an inclusionary playgroup setting. In addition, the level of each mothers' comfortableness while participating in the groups was evaluated. Chapter IV presented and analyzed the data from the study. Findings and conclusions relating to each of the research questions were stated. To bring the results of this investigation into perspective and to present a summary of possible implications, this chapter is designed to provide an overview including an introduction that re-establishes a framework, a discussion, possible implications, limitations, conclusions, and recommendations.

INTRODUCTION

The theoretical basis of this investigation emphasized the acquisition of communication skills through early parent-child interactions as a foundation for acquiring language (Bruner, 1983). Hart and Risley (1995) pointed out specific differences in the interactions of caregivers, which later translated into striking disparities regarding children's future vocabulary growth, vocabulary use, and school success. Thus, identifying and understanding the differences that occur in the interactions of mothers who have young children with special needs, as compared to the interactions of mothers who have young

children without special needs can prove to be beneficial to mothers, children, and early-intervention programs.

The literature suggests that play can and should have an important role in nourishing children's intellectual and social development (Davidson, 1996). Play provides the perfect medium because every child develops at a different rate, and through play children are allowed to improve their own structure with the materials provided (Kostelnik, Soderman & Whiren, 1993). Growth through play is possible because a young child's mental structures are at a stage of development where they are optimally stimulated and challenged by the possibilities inherent in play situations (Athey, 1984).

Vygotsky's approach to children with special needs had its foundation in the premise that higher mental functioning occurs by the children's opportunities to experience positive interaction with adults and peers in an encouraging environment (Berk & Winsler, 1995). Berk and Winsler further suggested that this environment needs to allow the children an opportunity to be included as much as possible with the regular activities of the primary culture. With that in mind, the mother-child dyads in this investigation were provided a sensitive environment where they were supported and treated respectfully. This allowed dyads to be fully integrated into the social activities of an appropriate play and age culture. Allowing children the opportunity to be integrated into this culture provided mothers and children the positive experience necessary to produce optimal mother-child interactions. Interview results recognized that parents placed primary importance on their children being included in activities provided for all children.

Vygotsky's theory emphasized development as a process of learning where guidance provided by interaction with more skilled individuals promotes positive development (Rogoff, 1990). Rogoff further described Vygotsky's model as a method that resembles

"apprenticeship," where a novice works together with a more skilled partner collaborating to solve problems jointly in the zone of proximal development. This allows the novice (child) an opportunity to go beyond his level of independence. The concept of joint problem solving happens between these partners. Participating mothers and children were allowed an opportunity to nurture this relationship of "apprenticeship" by playing in a consistent and encouraging environment. For this study, mothers and children were considered as those partners.

Identifying potential differences and similarities in how mothers communicate with their young children (with and without special needs) has the potential of providing strategies for early interventionists to increase the quality of caregiver-child interactions. Previous research implied that parent-child interaction provides momentum to the design of early intervention services (Sandall, 1993; Thorp & McCollum, 1994). Thus, enhancing communication right from the beginning is apt to improve the mental functions of children with special needs. Some researchers have reported statistically significant correlations between the way in which parents interact with their young children and the rate of their developmental growth. Consistent findings have been cited for a wide range of dyads, including children from low socioeconomic families (Hart & Risley, 1995; Walker, Greenwood, Hart, & Carta, 1994), those born prematurely (Beckwith & Cohen, 1989), and those with severe developmental disabilities (Brooks-Gunn & Lewis, 1984; Mahoney, Finger, & Powell, 1985). Consequently, the need to understand differences in mother-child interaction becomes even more critical. This investigation attempted to provide some evidence of the existing differences between mother-child dyads and some possible outcomes that have the potential of guiding early-intervention programs.

DISCUSSION

In this study the researcher observed more similarities than differences in the way mothers of young children with and without special needs communicated with their young children. These similarities may have been supported by the level of comfortableness that each mother felt while participating in the inclusionary playgroup setting and the general atmosphere and structure of the groups. Specifically, mothers exhibited similar turn-taking trajectories and frequency of social episodes. The difference seen in the production of social episodes occurred with respect to the length of the episode. Mothers of children without special needs tended to have longer episodes where they engaged in the social dance as described by Hart and Risley (1999). These differences were not considered significant, yet important enough to be taken into account. Thus, caregivers of children who have special needs should be made aware of the importance of extending children's language by engaging in longer and richer turn-taking episodes to reduce potential differences that may impact their child's language development.

All mothers demonstrated consistent responses to their children's communication attempts. They tended to produce more words, more variety of utterances, and longer social episodes while participating in mutual play as compared to all other activity context areas. As a result, these observations support previous research regarding the positive influence that play can have on mother-child interaction and children's cognitive and language development. This relationship between play, cognitive, and language development has been supported by researchers such as Rubin, Fein, & Vandenberg (1983), Vygotsky (1978), and Bruner (1983). When mothers participated with their children in mutual play, they did not produce any negative statements. Therefore, mutual play as an

activity context should be encouraged to enhance consistency in mothers responding to their young children.

More variety of utterances was observed in the gross motor/block area; however, more social episodes were produced in the housekeeping area. Therefore, housekeeping and gross motor/block areas ought to be considered as positive play settings that encourage constructive language interactions. This supports Vygotsky's theory regarding representational play where make-believe play within a socio-cultural context serves as an influential zone of proximal development (Berk & Winsler, 1995). In addition, supporting Vygotsky's concept, the "tools" provided in both of these areas seemed to enhance make-believe play.

Some differences that existed in the way mothers of children with special needs interacted as compared to mothers of young children without special needs raises important issues. These differences, as reported in the literature, could have the potential of negatively impacting the positive development of their young children.

The mothers of children with special needs tended to use more purposeful touching, executed more turns that did not include words, used more negatives, spent less time engaged in mutual play, asked fewer questions, used more imperatives, spent less time on their child's level, and generated fewer words to their children within specific age groups. The fact that mothers used more purposeful touching could be viewed from different perspectives: (1) touch may have been viewed positively as a means to provide stimulation and to convey warmth; (2) touch may have been used more often to direct and attract their children's attention because mothers indicated a strong desire for their child to participate in designated activities and fit in the inclusionary setting; (3) touch may have been directly related to the children's disability as Physically and Otherwise Health Impaired, because

mothers often used touch to assist the children to complete activities that posed physical difficulty for them. If all of these points of view are regarded, they may well explain the increase in the touching behaviors of these mothers.

Concerns regarding future language and cognitive development were raised, since mothers of children with special needs generated more turns without words and fewer words to their children than mothers of children without disabilities. If children with special needs hear fewer words then the general population, risks for future cognitive growth and language development are likely to occur. Hart and Risley's (1995) research conclusions support that the amount of words used has a direct correlation to language and cognitive development. Due to these differences, strategies that enhance a mother's interaction skills would seem crucial. Mothers need to understand that the frequency of words they generate is important to the development of their child's language and cognitive growth. By generating fewer words, mothers may truly be impacting their child's cognitive growth and optimum learning potential.

Children who are exposed to negative and critical statements or expressions can become frustrated, which can often lead to fewer attempts to communicate (Clark & Watkins, 1985). Much research has investigated the relationship between negative and positive statements and the effect these statements have on self–perceptions. Positive interactions were associated with high self-esteem, while negative interactions were associated with low self-esteem (Blake & Slate, 1993; Burnett & McCrindle, 1999; Campbell, 1989; Elgin, 1980). The fact that mothers of children with special needs generated more negative statements than the mothers of children without special needs causes concern for their young children's optimum social-emotional development.

When the mothers were interviewed, they both indicated a strong desire for their child to participate in programs provided for all children and a desire for their children to do well. This was shared in both pre- and post-interviews. Consequently, this caused the researcher to consider the following questions: (a) Were the parents so concerned with their child's ability to fit into the primary play "culture" that they focused much of their attention on redirection and making their child mind? (b) Were the negatives initiated because the mothers felt their children did not meet their expectations?

If these parents continue to generate more negative statements than the general population, these children with special needs would seem to be in jeopardy of having low self-esteem as they get older. A child who is often exposed to negative statements may not learn how to cope with frustration. Being more easily frustrated, these children may be prone to struggle more with school tasks, which ultimately can lead to school failure. Heightened awareness of the mother's use of negative statements will undoubtedly impact their children's self-esteem and frustration levels.

The mothers of children with special needs spent less time than the mothers of children without special needs engaged in mutual play. The effect of this could have influenced the variety of their utterances, frequency of words, and the length of social episodes. Mutual play was found to encourage and enhance mother-child interactions. This caused the researcher to wonder why mothers of children with special needs participated less in mutual play as compared to the other mothers. Were they more focused on having their children participate, therefore, not truly enjoying the playful experience that playgroups provided? Possible evidence for this attitude was seen in their responses from the interviews. Both mothers (MCS1 and MCS2) wanted their children to have an opportunity to engage in activities with children their own age; they wanted their children

to become more prepared for school. This implied the importance mothers placed on participation resulting in possible stress related to their expectation.

The second thought that emerged focused on the differing styles of mothers' communication. Did the communicative interaction styles of the mothers of children with special needs differ from the other two mothers of children without special needs? Hayden and Fivush's (1996) research indicated that during free play mothers exhibit two different styles, one that is considered conversational and eliciting (questioning, affirming, more participation) and one that is directive (directives, commands, and negations). The mothers of children with special needs may have a more directive communicative style indicating that their style influenced their interactions.

The mother of the older child with special needs used imperatives approximately three times more often than the mother of the child without special needs who was the same age. Differences in the younger children were minimal (3% difference). This lack of difference may be related to development, since the younger children engaged less in the directed table activities. More imperatives were generated to the older child with special needs during table activity time for redirection purposes. The table activity context also produced more imperatives for the older child without special needs, but those imperatives were used more frequently during the activity context of mutual play rather than redirecting. This raises question with regard to the following issues: (1) Do table activities promote more imperatives because of the very nature of being project oriented requiring more help and direction? Hayden and Fivush (1996) discovered that contexts that involved goal-specific toys (e.g., puzzles and shape sorters) demonstrated a higher rate of directives used by mothers. Since table activities were considered more goal oriented, this could explain some of the differences. Convergent tasks that use a more sequential or project-oriented

discourse may involve more directions to meet the goal of task completion and efficacy. (2) Did the mother of the special needs child feel more compelled to have her child complete the activity even if he chose not to participate? (3) Did the mother feel that by completing the designated project her son would be considered doing well and just like all of the other kids in the group? During the interviews, a sense of the importance of participating and having access to age-appropriate activities was highlighted by this mother. (4) Is this difference related to stylistic differences in the way mothers' structure conversations within the same context? Research has indicated that mother's speech characteristics do vary as a function of the context (e.g., Hudson, 1990; McCabe & Peterson, 1991; Reese & Fivush, 1993). Further investigation with respect to these issues would seem appropriate.

With respect to questioning, mothers of children with special needs asked fewer questions as a group and their questions were at a lower level relative to Bloom's Taxonomy of the Cognitive Domain. Questions are viewed as critical in scaffolding children's language and critical thinking skills (Berk & Winsler, 1995; Gall & Rhody, 1987). Berk and Winsler indicated that the use of questions is seen as being significant for classroom communication. With that in mind, if children with special needs were exposed to fewer questions and ones at a lower level of critical thinking, then they would be potentially denied the opportunity of developing higher levels of critical thinking and of having future school successes.

IMPLICATIONS

1. Early intervention programs need to support continued investigation to determine if differences exist in the way mothers communicate with their young children (with or without special needs).

In spite of the fact that generalizations cannot be made, evidence supporting critical differences makes it essential for further investigation. If some of these differences are seen in the larger population of special education, then children who are already at risk may truly never reach their maximum language and cognitive potentials. Early intervention programs have an opportunity to enhance services to families by understanding these differences and being more prepared to assist mothers in enhancing mother-child interactions. Even in the most ideal and supportive context, the inclusionary playgroup, there may be deeply held beliefs by parents, likely well intended, that may create a constellation of communicative behaviors that either deny direct access to language opportunities or provide the disposition that lowers expectation for independent thinking.

Early-intervention programs may want to consider providing small inclusionary playgroups in a home setting. Home settings may have more of a positive impact on the way caregiver's interact with their young children. Investigation of interactions in a home setting would seem appropriate for future research.

2. Early-invention programs should be encouraged to focus their instruction on enhancing the positive interactions of mothers and young children, especially dyads where special needs are involved.

A balanced intervention should be the goal of adults who become involved in children's play. As Berk (1994) pointed out, adult intervention is most successful when adults recognize children's current level of cognitive competence and build on that competence.

3. Early interventionists need to avoid putting mothers in the role of teacher, especially, if the interaction is directive and controlling.

Even though the children in this study showed some differences in their speech and language abilities, play allowed these various levels to be enhanced individually. Challenges in this study may be directly related to the difficulty mothers had in identifying what truly constituted play. It seemed that when the mothers viewed the activity as play, by engaging in mutual play, the communication interactions were richer. In contrast, when the mothers viewed the activity as "teaching," play interactions appeared more compromised. In general, mothers showed an understanding that play was beneficial. However, by getting into a teaching mode, they tended to structure the tasks not allowing for incidental learning that often accompanies play. Educators need to avoid putting mothers in the role of teacher by facilitating opportunities for playful experiences between mother and child. These playful experiences can provide more opportunities for mothers to enhance their child's overall development.

4. Early-intervention programs need to assist mothers in developing their use of both non-verbal and verbal skills to enrich and extend conversations.

In order for maximum benefits to occur, a facilitator's role should not be to limit and restrict, but rather to extend and enrich (Ford, 1993). Both mothers of the special needs children tended to redirect and teach their children more, both verbally and non-verbally, potentially restricting positive outcomes. Encouraging mothers to use positive statements and limit negative statements has the potential of building the child's self-esteem. Children with disabilities are already at a disadvantage for future school success. Therefore, assisting mothers in understanding the role of play, the importance of using positive statements, increasing the number of words they use, and promoting higher-level thinking skills by using questions offers children a better

chance for future success. If early interventionists assist mothers in becoming good observers of their child's signals, then the communicative interactions between themselves and their children have a stronger potential of being enhanced. If mothers want their children with special needs to be successful in school, then they must be made aware of the importance of the interactions they engage in with their children right from the beginning.

5. Early-intervention programs need to help mothers understand the importance of play and how a positive play environment can affect language and cognitive development.

The success of the children as language learners becomes dependent on the facilitators in their environment. Since mothers are the primary facilitators from birth, the emphasis they place on providing repeated language interactions becomes even more crucial to their children's positive development. Through play, mothers are provided an opportunity to extend and expand their child's language potential in an environment that promotes rich communicative experiences. This in turn is likely to have a positive impact on the child's cognitive, emotional, and social development.

6. Early-intervention programs that provide young children with disabilities an opportunity to participate in the "culture" of children their own age needs to be provided. Allowing mothers an opportunity to provide input with respect to these groups seems fundamental.

As stated by the mothers of the children with special needs in this study, an important goal for their children was to be able to participate fully in the culture of children their own age. Playgroups provided that opportunity. Programs that encourage participation of young children with or without special needs allow caregivers the realization of this goal of full participation. Parents indicated the

importance of feeling responded to in a positive, encouraging manner. Their ideas and thoughts need to be incorporated into the planning of such groups to enhance their level of comfortableness; because, depending on how comfortable parents feel in a playgroup setting is likely to affect their interactions. By providing inclusionary playgroups that promote this positive atmosphere, the interactions of mothers may be more similar than different.

LIMITATIONS

The reader is cautioned to avoid generalizing the findings to populations beyond those participating in the study. The amount of interpretations of any kind of research, quantitative as well as ethnographic/qualitative, is unlimited, and this study should be considered for the researcher as well as for the reader an event that has the potential of generating new ideas and or problems. Specific limitations for this study are identified below:

1. Children with multiple disabilities (i.e., deaf-blind, mentally and physically challenged) were not studied.
2. The sample size was small, limiting any generalizations.
3. The children who participated in this study were only boys, thus limiting conclusions.
4. Since the playgroup site was constant, only urban families participated.
5. The researcher did not have any input into the designated activities and materials explored during playgroup sessions. It was felt that the placement of certain materials might have interfered with some of the non-verbal communication generated by each mother. An example of this included placing books on the table

for the mothers to view with their children instead of the book area. This did not encourage the same level of warmth and touch that occurred in the book area, a more natural setting for book sharing.

6. At times dialogue was difficult to hear due to background noise, inadequacy of the equipment, and the researcher's inability to get too near to the participants. Thus, some of the turns were coded as "can't understand," when true dialogue was produced. It was felt that close proximity to the participants could potentially influence their social interaction. This was evident on a few occasions when the videographer moved close to the participants, the child noticed the camera, stopped playing, and smiled into the camera lens.
7. It was not always easy to clearly identify non-verbal cues due to the position of the camera and the position of the mother. Mothers often stood in front of their children blocking the view for videotaping and for field note taking, thus, making it difficult to consistently read all non-verbal cues.
8. Even though parents indicated a high level of comfortableness while participating in the playgroups, observations of play in the family's home setting could have provided different results.

CONCLUSION

In conclusion, the two primary goals for early-intervention programs that emerged from this investigation should emphasize the importance of the mother's role in facilitating language and they should provide opportunities for children and mothers to participate in playgroups where they feel comfortable and accepted. Early interventionists need to provide support, guidance, and information regarding the critical nature of the mother's

role in facilitating their children's language and cognitive development through positive interactions that are rich in both non-verbal and verbal language. Providing play opportunities for children with special needs with their mothers and playmates their own age allows for positive interaction to occur. This may be the primary step towards helping children with special needs to be fully integrated with children their own age. The message for mothers is critical. If they desire optimal opportunities for their children as the mothers did in this study, then early-intervention programs must see that mothers are provided with information that will enhance and expand their children's language potential. The amount of words, positive statements, level of questioning, and engagement in mutual play mothers provide can make the critical difference for the future success of their children. Thus, the responsibility of early intervention programs needs to focus on facilitating these positive experiences between mother and child.

APPENDICES

APPENDIX A

UCRIHS APPLICATION

MICHIGAN STATE
UNIVERSITY

August 15, 2001

TO: David STEWART
343 Erickson Hall
MSU

RE: **IRB # 00-193** CATEGORY: 2-F EXPEDITED
RENEWAL APPROVAL DATE: August 14, 2001

TITLE: PARENT CHILD INTERACTION IN AN INCLUSIONARY PLAYGROUND SETTING: COMPARISON OF CHILDREN WITH AND WITHOUT SPECIAL NEEDS

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the **UCRIHS APPROVED THIS PROJECT'S RENEWAL.**

RENEWALS: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Projects continuing beyond one year must be renewed with the green renewal form. A maximum of four such expedited renewal are possible. Investigators wishing to continue a project beyond that time need to submit it again for complete review.
REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.
PROBLEMS/CHANGES: Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of further assistance, please contact us at 517 355-2180 or via email: UCRIHS@pilot.msu.edu.

Sincerely,

Ashir Kumar, M.D.
Chair, UCRIHS

OFFICE OF
RESEARCH AND GRADUATE STUDIES
ant Vice President for Research
igan State University
ministration Building
st Lansing, Michigan
48824-1046
517/355-2180
FAX 517/353-2976

AK: kj

cc: Debra Lively
11353 Lake Circle Dr.
Saginaw, MI 48609

Consent Form For Parent/Child Participation

The purpose of this study is to gain a better understanding of parent child interaction during "play to learn groups." This study is part of a doctoral dissertation and continuation of a pilot project conducted by Debbie Lively, doctoral candidate at Michigan State University. During this study, Debbie Lively will be observing parent-child "play to learn" groups in an attempt to discover how parents and young children interact. A video camera will be used to capture any information that may be missed during the actual observation. In addition to observation and videotaping, Debbie will conduct interviews with parents prior to and following the ten-week playgroup sessions. Debbie Lively will discuss results with parents regarding parent-child interaction, observations, and interviews. The play to learn group will not be interfered with, Debbie Lively will simply be an observer.

In addition to obtaining your permission for you to be observed, videotaped, and interviewed, permission is needed to tape and observe your child. Taping will occur during the month of September, October and November during your child's "play to learn group." You will be observed at least four times and no more than eight times, with each observation period lasting about 45 minutes.

All data collected will be treated with the strictest confidence, your name or your child's name will not be used in any reports about this project and any identifying characteristics of you or your child will be disguised. If you are videotaped, then this videotape will not be viewed by anyone other than you, the researcher, Debbie Lively, the dissertation committee and two early childhood teachers who will assist in verifying data. Your privacy will be protected to the maximum extent allowable by law.

Participation in this study is voluntary and you may stop participating at any time without penalty. If you do not participate in this study, or stop participating in this study, you and your child will continue to be full members in the play to learn group. Your signature below indicates consent for yourself and for your child to participate in this study, which will include observation(s), videotaping of playgroup time, and a private interview.

If you have any questions or concerns relating to the nature of the research, please contact Debbie Lively, Michigan State University Doctoral candidate, at 497-4975. If you have any questions or concerns relating to your participation in this study, you may contact Dr. David Wright who is the Chair of the University Committee on Research Involving Human Subjects, at 517-355-2180.

Thank you!

Sincerely,

Debbie Lively

UCHIRS APPROVAL FOR
THIS project EXPIRES:

AUG 1 4 2002

SUBMIT RENEWAL APPLICATION
ONE MONTH PRIOR TO
ABOVE DATE TO CONTINUE

You_____ (print your name) agree to allow yourself and your child _____ to participate in a project that is designed to provide a better understanding of parent-child interactions during play to learn groups. The participation will require at least 4 sessions of about 45 minutes duration but entail no more than eight sessions. The project will take place during the months of September, October and November of this year and will be directed by Debbie Lively, a doctoral student at Michigan State University who is also an Associate Professor at Saginaw Valley State University and can be contacted at 497-4975. Participation in this project is voluntary and you may stop participating at any time during the project without penalty. If you do not participate in this study, or stop participating, you and your child will continue to be full members in the play to learn group.

The purpose and the nature of this project have been explained. Agreement to be videotaped if given, will result in a videotape that will not be viewed by anyone other than you, the researcher, Debbie Lively, the dissertation committee and two early childhood teachers who will assist in verifying data. In all discussions about this project, confidentiality will be maintained and the name of the participants will not be mentioned.

Participants may ask questions at anytime during the project. In the unlikely event of any injury as a result of this project, no reimbursement, compensation or free medical care is offered by Michigan State University.

Consent given for participation in the study.

Child's Name: _____(Please Print)

Parent/Guardian: _____(Please Print)

Parent/Guardian Signature: _____(Please Print)

Date: _____

Consent given to be videotaped during this study.

Child's Name: _____(Please Print)

Parent/Guardian: _____(Please Print)

Parent/Guardian Signature: _____(Please Print)

Date: _____

APPENDIX B

INTERVIEW CODING SYSTEM

Adapted from Appl, Fahl-Gooler and McCollum (1997)

The following categories and codes were used for pre/post interviews with all parents. With each subcategory examples of statements made by parents is provided.

Categories/Codes/Examples (taken from pre- and post-interview transcriptions)

Examples are provided in the following manner:

S=mother of children with special needs; N=mothers of children without special needs

#1 Facilitators

1a. Support provided

S: "They encouraged me to interact; I liked the fact there is always a person who has experience...I felt very confident."

N: "They gave him one on one attention; they are just someone to ask questions to when you don't have someone to turn too."

1b. Helping parents feel accepted and a sense of belonging in the groups

S: "I felt very welcomed; they were always very friendly; you didn't feel like an outsider walking in."

N: "I know that other parents love to come to playgroup even if their child was having a tantrum...they showed up the next week."

1c. Relationship between facilitators and parents and/or children

S: "The girls used a lot of tact and tried their best not to hurt somebody's feelings; I just think the girls were really positive and completely understood how you felt."

N: "They gave (Child) special attention; if he was acting like he wasn't interested in an art project, they would get him more involved by getting excited."

1d. Planning and facilitating the group

S: "They coordinated everybody; they were real directive with regard to centers."

N: "They left it up for us to learn how we had to show the child how to fix the puzzles...stepping back and letting it be the child and parent."

1e. Eliciting parent input and feedback

S: "The survey was a great idea; lots of eye contact, this showed me they listened; they were just there asking for my suggestions."

N: "I liked the survey...parents were able to give their opinions how the playgroup helped them learn about their child's development; I suggested they move sing song time along and they listened."

1f. Suggestions for future facilitators

S: "More movement; maybe organize craft time better; shorten music time; have a set time where parents are sitting down with their kids; Probably educate parents more to interact with their child."

N: "Have one week set aside for music and just music all session long; shorten finger plays."

#2 Goals

2a. For self

S: "Meeting other mothers, exchanging ideas, seeing other children at the same age level and seeing how they are doing; interacting with other parents and if there was a child with another disability...we could talk about our success stories."

N: "Learning things I don't know; enhance my relationship with my son."

2b. For child

S: "Sharing; work on his attention span; interact with other children his age; be more prepared for preschool."

N: "Sharing; to explore and have fun; enhance his social skills; prepare him for preschool."

#3 Benefits

3a. For self

S: "Seeing other children at the same age level and see how they are doing...I haven't been around young children in a long time; it forces me to play with him."

N: "I like the one on one time; it was nice to see how he grows."

3b. For child

S: "He'll be more prepared for preschool; him being included in normal day to day activities; he has a variety of other children to play with."

N: "When he gets into preschool, he will have centers and he will already be acquainted with that type of teaching; peer interaction; he found new areas to explore."

#4 Personalization

4a. Personal information regarding the child

S: "He is so shy; he is funny about textures; oh, he was taking Tai Kwan Do for awhile, but he was not successful."

N: "We picked a hard time because it was (Child's name) nap time...maybe that is why he had a difficult time at circle time; I feel he was a little bit more mature than the other children."

4b. Personal information regarding self

S: "I was going to get involved in other groups but I was not able too...they didn't meet (child's) needs; I was freaking out to let him try new things; I would see parents who have a child with a disability.... I would always try to encourage them; before (Child) it was easy...easy to learn and be laid back, but (Child) came along and things changed, but for the better."

N: "My work schedule was a barrier; I wish he would have liked circle time more."

4c. Openly indicate comfortableness attending playgroups

S: "Real comfortable...I don't get all teary eyed anymore that was the first two weeks; very comfortable...I have always been very comfortable to share information about (child)."

N: "I would share information definitely...no shyness about not being personal; I don't have anything to hide...I am very comfortable."

#5 Groups

5a. Groups in general: strengths and concerns

Strengths

S: "Love the fact that parents are allowed to stay with their children; love the fact that parents exchange ideas and thoughts; structure; project and new themes."

N: "A place to learn how to interact with your baby/toddler; able to fit my work schedule; themes and centers."

Concerns

S: "I do wish they would get together more parents...maybe outside of playgroups; structure doesn't allow for parent interaction; the long time children had to sit for circle time."

N: "Circle time was too long; not orderly at the beginning; finger plays were to long."

5b. Specific components: playtime, discussions, snack, the environment/setting, materials/handouts

S: "Center time-free play/group times were good...they brought him out of his shell; snack time and circle time helped with his attention span."

N: "I really liked the handouts, time for reading different things to make sure what the baby is doing is on target; I liked the table activities because it encourages him to do things that he would not be given the opportunity to do necessarily at home."

5c. Suggestions for improving the groups

S: "Give parents a little more time to interact; more movement; probably educate parents to interact more with their children."

N: "Shorten the fingerplays; keep a routine; have parents sit down and talk at the beginning."

#6 Differences and Comparisons

6a. Parent comments about their child's differences

S: "Before (child) it was easy...easy to learn and laid back...but (child) came and things changed, but for the good; (Child) doesn't have a siblings, cousins or other children close to his age close by to give him an opportunity to interact."

N: "I've shared his story numerous times (chronic otitis media); he is more mature."

6b. Parent comments about their own personal differences

S: "I don't know if they (other parents) understand the meaning of playgroups but some parents just come and sit and watch their children playing instead of playing with them; I am a stay at home mom; a couple of parents taught me what not to do; some of them are involved in the welfare program."

N: "I could share my experiences with someone else, like my mother who hasn't been around young children in over 20 years; none of them had an attitude that they didn't want to be here."

6c. Providing information about the child's special needs

S: "I would see parents who have a child with a disability...I always try to encourage them and tell them my story...once I was in their shoes...at that point I was still worried and concerned; I like (child) being around other children without disabilities because to me (child) doesn't know he has a disability...so I don't want him...I mean it is good for him to be around children with disabilities but also without cuz I can see him trying to keep up and that makes me feel good; (child) has special needs but he needs to be included in normal day to day activities...normal classroom activities; I think there was one time when we were

sitting down with marshmallows that I brought up the difficulty he has with contrast...I mentioned something about that contrast is not good for him."

6d. Valuing differences

S: "I think it's good to have a variety... to be around all kinds of people is a plus; he is going to be a more well rounded person because he is not around one particular race or group of people."

N: "It's a good experience to have a variety of children in the playgroup; bringing a variety of children together makes children more tolerant of other people that are different from themselves."

#7 Differences/Comparisons of community parent-child groups

S: "I was going to get involved in other groups, but they didn't meet (child) needs; some parents won't participate because they feel the program is an extension of a welfare program."

N: "He goes to nursery now and was involved in church nursery before that; swimming classes at they Y were positive."

#8 Other

8a. Definition of play

S: "Interaction between parent and child; anything to him right now is play."

N: "Fun, busy work, laughter, exploring and learning; lots of imagination, free time, free spirit...you're not restricted by any rules...you just play where your imagination takes you.

8b. Inclusion

S. "I think it is good for him to be included...he has to keep up with other children...I don't always see him in special education; having special needs but at the same time being included in normal day to day activities."

N: "Putting two different types together and coming together doing the same; if a child has a difficulty it will help to have the normal child to teach them; not restricting your playgroups or your play by any definition of a child you are inviting...all children at any developmental stage to your playgroup; I think inclusion makes children more tolerant of other people that are different from themselves."

8c. Role in facilitation of play

S: "He basically picked what he wanted to do; I tried to keep him focused; we just had fun playing together; a big kid playing with a little kid; let him decide mostly; we just kink of went with the flow."

N: "I did what he wanted to do and he did what I wanted him to do; I tried to encourage him; it was hard for me to get him to change; I didn't push him; I thought he should pick what he wanted to do."

APPENDIX C

TRANSCRIPTION CODING SYSTEM

Adapted from The Juniper Gardens Language Project 1986 developed by Betty Hart, Ph.D.

(Hart & Risley, 1995)

This observation system was adapted to collect detailed information on the following.

1. A child's vocalizing and talking with his mother in an inclusionary playgroup setting.
2. A mother's vocalizing and talking with her young child in an inclusionary playgroup.
3. A child's social and behavioral (non-verbal) interactions with his mother in an inclusionary playgroup setting.
4. A mother's social and behavioral (non-verbal) interactions with her young child in an inclusionary playgroup.
5. The activity context of a child and mother's social interactions.
6. The frequency and length of social episodes.

Definitions for specific categories are presented in two sections as follows:

A. *Social Interaction Codes*—Codes that describe components of the child's social interactions and the context in which they occurred.

B. *Linguistic Use Codes*—Codes that describe linguistic function of verbal utterances.

Outline of Social Interaction Codes

A. *Codes for Activity Context:*

The general context of contact between the child and mother

- O Play
- O Mutual Play
- O Teach
- O Redirecting
- O Child Care
- O Other

B. *Interaction Codes:*

The person who emitted a coded social behavior

- O C–Child
- O M–Mother
- O FA–Father
- O AA–Another Adult
- O AC–Another Child
- O F–Facilitator

C. *Adjacency Condition:*

The relationship of a coded social behavior to the partner's social behavior

- O Initiated
- O Response
- O Continuation
- O Imitated
- O Prompted Behavior

- O No Response
- O Scaffold (Extension)

D. *Context:*

The play area where the social behavior took place

- O Housekeeping
- O Sensory/FM
- O Table Activities
- O GM/Block
- O Book/Toy
- O Transition

E. *Behavioral Exchange:*

The qualifications or additions to vocal or verbal social behaviors

Vocal Codes:

Inflection

- O Positive Statement
- O Negative Statement

Nonvocal Codes:

- O Eye Contact
- O Child's level
- O Touch
- O Gesture
- O Pointing
- O Facial Expression
- O Conveyance of Warmth

Definitions of Social Interaction Codes

The following conventions were used in describing the system's procedures and definitions:

A. *Units of Social Interaction:*

Social Turns

In this study, turns were the basic units of interaction that were recorded in this system. They included: a) all verbal comments made by the child or by anyone who was present during the observation (regardless of whom they were directed to); b) all vocalizations without words that were made by the child or to the child; and c) selected non vocal social behaviors (to be described later) that were made by the child or to the child. Turns were identified as follows:

1. *Verbal behavior*—Each sentence or sentence fragment was considered a separate turn. Fragments or single words that stood alone and that were separated by definite pauses were considered to be separate turns.
2. *Nonverbal behavior*—If a nonverbal behavior (such as touching) accompanied a verbal or vocal turn, the nonverbal behavior was considered to be part of the same turn. If the nonverbal behavior was separated from verbal behavior by a response from the partner, the nonverbal behavior was coded as a separate turn.

An *interaction code* and an *adjacency code* were recorded for every turn. In addition turns received social context codes: *Context*—where the social interactions took place, and *Activity Context*—what Mother and Child were doing.

B. *Social Episodes:*

Turns that involved the child (i.e., those that were either emitted by or directed to the child) were grouped into social episodes. An episode was composed of one or more

successive turns between the child and one or more social partner(s), with the exception that the turns within an episode had to occur within 15 sec. of each other (i.e., if there was at least a 15 sec. pause after a turn, the episode was considered to end). In addition, the turn was considered ended if one partner continued holding the floor.

C. *Activity Context Codes:*

Mother and child were in the same room during all the sessions and most of the time they were in the same play areas. The Activity Context Codes describe what the Child and the Mother were doing in the different play areas:

Play: Either mother or child were engaged in independent play.

Mutual Play: Mother and child were engaged together in: (a) dramatic play; (b) playing a structured game such as playing ball; (c) doing an art project together; (d) reading or looking at a book together; (e) exploring materials or (f) motor play such as crawling and creeping through a tunnel. The mother was actively participating in the activity with the child.

Teach: Parent taught, demonstrated or modeled for the child.

Redirecting: Either child or mother redirected attention or changed activity or play area.

Child Care: Mother and child were engaged in a routine care activity such as putting on and taking off clothes or washing hands.

Other: Mother and child were doing something different from what was considered in the above.

D. *Interaction Codes:*

The interaction code identified the person who emitted the social behavior. One of the following was recorded for each turn:

Child: The child who was the focus of the observation.

Mother: The child's mother who participated in playgroup activities with their child.

Father: The child's father who did not participate in playgroup, but who visited the child and mother briefly when they were participating in playgroup.

Facilitator: Any of the adult playgroup organizers who set up the play areas.

Another Child: Any other child who participated in playgroup with his/her own mother.

Another Adult: Any other adult who was present during the observation.

Observer: Person who observed and carried out the study.

E. *Adjacency Condition:*

The adjacency condition described the relationship of the coded behavior to the behavior of the partner. One of the following was recorded for each turn:

Social behaviors involving the child:

1. Initiated—An initiated condition was the first social turn to occur between the child and a partner, mainly the mother, after there were at least 15 seconds in which the child was not involved in an interaction. *Note*: Vocalizations that the child made to himself were considered to be directed to the mother. E.g.: The Child ran from the sensory table and went into the tent car and made sounds. The Mother followed the child and stood in front and said, "Where's your wipers?"
2. Response—A response was the turn that a person took within 15 seconds after a partner's turn. This included verbal and non-verbal turns. E.g.: Child, "I gonna be

a doctor appointment." Mom said, "Oh, you gonna be a doctor?" Child nodded head up and down and took the stethoscope to put in his ears. Mom put the head of stethoscope on her chest. Child said, "I can hear it."

3. Continuation—A continuation was coded when the partner who took the previous turn did not receive a response or did not allow time for a response within 15 seconds and continued with another turn. E.g.: Mother said, "what color is that?" Mother continued after a few seconds, "can you tell me what color the elephant is?"
4. Imitated—When the person made a complete, exact replication of the partner's last turn within 15 seconds, it was considered an imitated condition. E.g.: Child said, "yuck, fingers," holding his fingers up. Mother said, "yuck, fingers," holding her fingers up.
5. Prompted Behavior—The person's behavior was physically guided by the partner. E.g.: When the clean up song started playing, the Mother held the Child's finger and led him to put toys away.
6. No Response—This code was used to mark when either Child or Mother did not respond to partner within 15 seconds. E.g.: Mother said, "Where is the ball?" Child did not respond and walked over to the table.
7. Scaffold—Only direct scaffolds (expansions) were considered when the Mother built on the child's expressive language by expanding on his utterances. E.g.: Child said, "macaroni." Mother said, "macaroni and cheese." Child said, "ball." Mother said, "That's a big red ball."

F. *Behavioral Exchange:*

Vocal Codes: Additions or qualifications of verbalizations

a. Inflection—Special tone or interesting intonation accompanying an utterance.

b. Positive Statement—The Mother described (1) positive aspects of the child to build his self-esteem or (2) acceptable aspects of the child's behavior. She let the child know that the child's behavior was appropriate, good, interesting or otherwise in accordance with the rules of the culture. E.g.: "You get'em cuz you're big and tough." "You are so smart...give me 5."

c. Negative Statement—The Mother described (1) aspects of the child that were against the child's self esteem, or (2) unacceptable aspects of the child's behavior. She let the child know that the child's behavior was inappropriate or bad in the terms of the culture. E.g.: Mother said, "He likes watching other kids being brave," (negative tone indicating he was scared and not brave). Mother said, "Stop it! You're bad!" "Don't throw them." "Not so loud." "Out of your mouth."

Non-Vocal Codes: When they occurred during vocal or verbal turns they were recorded as qualifiers to the vocal/verbal turn. If they occurred apart from vocal/verbal turns they were recorded as separate turns.

a. Eye contact—The person purposefully looked at the other person in the eyes.

b. Child's level—Mother got down to child's level whether by sitting on a chair or on the floor, kneeling down or lying down on the floor or by bending over enough to be at child's level. E.g.: Child went to bin in Sensory/Fine Motor Area. Mother kneeled next to him and started playing with water.

c. Touch—The person purposefully touched the partner—included patting, playful pinching, hugging, leaning against, picking up child, holding child's hand, etc. E.g.: Mom patted child's back for completing the table activity.

d. Gesture—The person used body language such as shrugging shoulders, shaking, nodding, waving, reaching, motioning, etc. E.g.: Mother was reading a book. She moved the book towards the child and growled as she smiled. Child shrieked and *raised his shoulders*. Mother said, "do you want to go to the table?" Child *shakes head no*.

e. Pointing—The person pointed with extended index finger to an object, person or place. E.g.: Mother and Child were in the Housekeeping Area. Child said, "I remember that one" as he pointed to a baby doll on the sofa.

f. Facial Expression—Look in the face such as a smile, laughing, excitement, sadness, happiness, worry, anger, jolt, anxiety, shock, panic, etc. E.g.: She moved the book towards the child and growled as she *smiled*.

g. Conveyance of Warmth—The person showed affection towards the other. E.g.: Mother congratulated Child on his success with a puzzle. She said "Good job!" and tickled him. Mother said, "Is that a pickle?" She used a silly voice and snuggled into the child's neck.

Outline of Linguistic Codes

A. Utterance

B. Number of Words

C. Kind of utterance

- O Declarative

- Statement
- W-Question
- Exclamation
- Y/N Question
- Label
- Negative
- Imperative:
  - *Direction*
  - *Request*

Definitions of Linguistic Codes

A. *Utterance*: Each verbal turn was recorded exactly in the way it was emitted by the speaker. Unintelligible words within a verbal turn were identified as "Can't understand."

B. *Number of words*: The amount of words in each verbal turn were counted and recorded in a column on the spreadsheet. If the vocalization was entirely unintelligible a 0 was recorded in this column. Contractions and hyphenated words were counted as one word. E.g.: isn't, you're, I'll, bye-bye, etc.

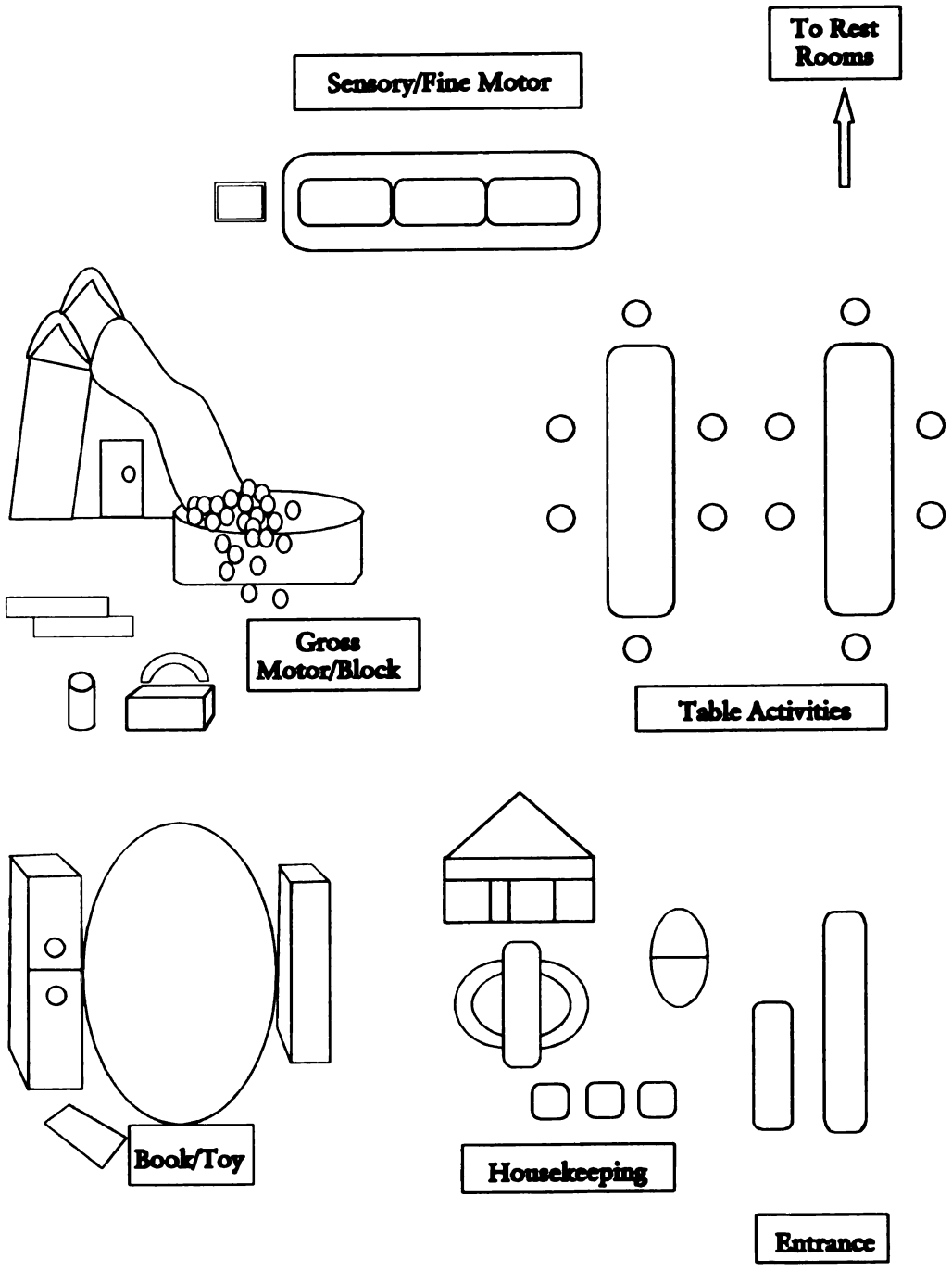
C. *Kind of Utterance*: Vocalizations were identified according to their function.
   - Declarative: The speaker presented information to the hearer using a complete sentence, e.g.: "Mom helps you." I did that." However, the sentence might not have all of the components, e.g.: "I taking my baby for a walk." "I gonna slide."

- Statement: The speaker presented information to the hearer using an incomplete sentence, e.g.: "Another one." "I pee pee."
- W-Question: Interrogative beginning with who, what, when, where, why, how. E.g.: "What is it?"
- Exclamation: A vocalization accompanied by inflection or change in tone was considered an exclamation, e.g.: "I did it!" "Look!" "Momma, come here!" Vocalizations such as "Oh, Wee, Yeah, OK, Yum, Hey, and Oops" were considered exclamations even though they were not always accompanied by overt inflection.
- Y/N Question: Questions that could be answered yes or no, e.g.: "Do you want to paint?" "You too big?"
- Label: The speaker gave something an identity, a name, a quality, e.g.: "That is a hammer." "Looks like a fingernail." "Ball." "Kind of sticky."
- Negative: When "No" was used in isolation to express refusal or denial, it was considered a Negative kind of utterance, e.g.: Mother asked the child if he wanted to do a table activity. Child answered, "No."
- Imperative: The speaker expressed an order, a command, a suggestion or a request expressed with an imperative construction.
  - *Direction*: The speaker directed or ordered the hearer to take action, e.g.: "Put it here." "I there." "Go play with him." "Turn it around." "Look at this."
  - *Request*: The speaker asked the hearer to do something, e.g.: "Please let me see"; or suggested a course of action including herself, e.g.: "Let's put glue on here."

- *Exceptions*: (a) When directions were given in a playful manner they were considered requests, e.g.: "Come here and give me a kiss." "Better get me some fires." (b) When "Be careful" or "Careful" were said without a demanding tone or inflection they were interpreted as requests.

APPENDIX D

INCLUSIONARY PLAYGROUP SETTING



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