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Social play in early childhood

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SOCIAL PLAY IN EARLY CHILDHOOD

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CERTIFICATE OF APPROVAL

This is to certify that the Thesis of

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Abstract

Social play is critical to early development because it helps the child develop the social skills needed to be socially competent. Social competence, the ability to interact effectively with others, has been found to be associated with socioeconomic status. However, little research has been conducted on the relationship between socioeconomic status and social play. Therefore, the purpose of this research study was to examine the effects of socioeconomic status on the social play of preschool-aged children. The participants were 25 children (10 females, 15 males) from 2 to 5 years of age who were recruited from four preschool programs in Central New York. The participants were divided into two groups based on pre-tax family income: a low socioeconomic status group ($n = 8$, 2 females, 6 males) and a higher socioeconomic status group ($n = 17$, 8 females, 9 males). Each participant was observed for 20 minutes during free playtime at school. For every 30 second interval, the highest level of each participant's social play was recorded using the Social Play Rating Scale. Data were analyzed using independent t tests. No significant differences in interactive and noninteractive play behaviors were found between the two groups. Additional analysis indicated that females engaged in significantly more noninteractive play behaviors than males ($t(23) = 2.367$, $p < .05$), and males engaged in more onlooker behavior than females ($t(23) = 2.386$, $p < .05$). Potential factors that might have influenced the results were the length of time the children had attended the preschool program, the materials available, the training of the staff, and the influence of peer interactions on social play. The results of this study provide a rationale for further research that examines what factors may influence the social play of children.

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Chapter 1: Introduction

Background

Play is a transaction between the child and the environment in which the child determines what occurs during the transaction, the child is able to do whatever he or she wants with objects, and the transaction is in itself motivating to the child (Parham & Primeau, 1997). Play provides a safe context for the child to practice new skills and behaviors with the freedom to make mistakes (Sutton-Smith, 1966). Play in the first years of life becomes increasingly social. Initially, parents are the child's primary play partner (Haight & Miller, 1993). As such, "parent-infant play is a vital context for promoting the responsive and reciprocal interactions important for secure attachment relationships" (Creasey, Jarvis, & Berk, 1998, p.127). As the child grows older, play with peers becomes increasingly important and is the main means through which children interact (Parham & Primeau, 1997). Social play is defined as "a state of engagement in which the successive, nonliteral behaviors of one partner are contingent on the nonliteral behaviors of the other partner" (Garvey, 1974, p.163). In other words, at least two children are playing together and their actions influence each other's behaviors. Engagement in social play is one of the primary ways for children to learn social competence. Through social play, children learn to take turns, share, cooperate, and communicate with peers. Social competence, or interacting effectively with others, is important throughout the lifespan (Athey, 1984; Creasey, Jarvis, & Berk, 1998; Rose-Krasnor, 1997). Skills necessary for the development of social competence begin to develop very early in life (Garvey, 1974). From the moment of birth, children have a repertoire of behaviors that are designed to elicit their parents' attention. The adequacy of the parent's response provides the basis

for how secure the infant-caregiver attachment will be (Bretherton, 1985), which influences curiosity, affect during social interactions, and peer interactions in the preschool and school years (Suess, Grossman, & Sroufe, 1992). Early parent-child interactions also "afford the child the opportunity to observe, incorporate, practice, and refine social skills, such as give and take, conflict management, and exchange of positive affect" (Creasey et al., 1998, p.119).

Parents also influence the child's social competence by structuring the environment to provide opportunities for the child to practice appropriate social behaviors and to interact with peers (Johnson, Christie, & Yawkey, 1987; Ladd, 1992; MacDonald & Parke, 1984). When the child begins daycare or preschool, the child begins to spend more and more time with peers. The parent-child interaction remains critical to the child's development, but peer interactions become a major force in shaping the child's social competence (Gutt, 2000; Parker & Asher, 1987). Peer interaction facilitates development because, through modeling and imitating, children learn and practice social skills that they do not have the opportunity to use with their parents (Ladd, 1999). For example, when a child takes a toy away from another child, that child's response to the situation is much different than the way the parent would respond, requiring a very different set of skills and behaviors from the child who took the toy. Children who do not have opportunities to interact with peers may not develop the social skills necessary to be socially competent (Berndt, 1983; DeRosier, Kupersmidt, & Patterson, 1994; Ladd, 1983). Deficient social skills set in motion a circular relationship in which the child has difficulty interacting with peers; this results in peer rejection which leads to social incompetence (Hymel, Rubin, Rowden, & LeMare, 1990, Vaughn et al.,

2000). The cyclic nature of social incompetence is supported by a longitudinal study that found that children who engaged in less peer interaction in preschool were those who were considered socially incompetent in elementary school (Ladd, 1999). In addition, children with social difficulties are at risk for developing problems in adolescence and adulthood such as delinquency, academic difficulties, aggression, social withdrawal, low self-esteem, negative self-perception, and mental health disorders (Parker & Asher, 1987; Rubin & Daniels-Beirness, 1983; Rydell, Hagekull, & Bohlin, 1997).

Peer interactions which occur within the context of social play help children to develop and practice the social skills needed to be socially competent (Gutt, 2000; Johnson et al., 1987; Ladd & Hart, 1992; Parham & Primeau, 1997; Roff, Sells, & Golden, 1972; Sheridan, Hungelmann, & Maughan, 1999). Social skills include perspective taking, cooperation, communication, turn-taking, sharing, resolving social conflicts, and understanding social rules. For example, social play in preschool requires communication, perspective taking, and monitoring the response of others (Howes, 1987). In addition, children who demonstrate social play are seen as being more socially competent than their peers who do not engage in social play (Arthur, Bouchner, & Butterfield, 1999; Connolly, Doyle, & Reznick, 1988; Rubin, 1980; Rubin & Coplan, 1998).

Social play is not the only factor related to social competence. Socioeconomic status (SES) has also been shown to influence social competence. Researchers have found that children of low SES often have deficits in social skills and exhibit behaviors such as aggression and social withdrawal (Bradley & Corwyn, 2002; Dutton & Levine, 1989; Lonigan, Bloomfield, & Anthony, 1999; Stipek & Ryan, 1997). Specifically,

living in a household of low SES has been linked to having fewer and poorer peer relationships (Conger, Ge, Elder, Lorenz, & Simons, 1994; Duncan, Brooks-Gunn, & Kelbanov, 1994; Gerard & Buelher, 1999). There have been many hypotheses for why SES is related to social incompetence. One potential reason is that parents who are from a low SES background have been found to have fewer positive interactions with their children. This is hypothesized to be due to the fact that living in an impoverished environment for a long period of time can lead to decreased energy and a negative emotional state that affects the parent-child bond (Bradley & Corwyn, 2002). In addition, children of low SES often do not have access to materials (such as toys) and opportunities (i.e. going to a restaurant with family) that would help to foster social competence (Bradley & Corwyn, 2002). Another hypothesis about the link between SES and social incompetence is that children of low SES live in an environment that offers fewer social opportunities, inappropriate role models, inadequate supervision, and negative peer influences (Eamon, 2001).

Problem Statement

Social play and SES have been determined to influence social competence. However, it has not been established that SES influences a child's social play. The few studies that have examined the relationship between SES and social play have yielded mixed results. Some studies have found that children of low SES engage in little to no social play (Griffing, 1980; Rosen, 1974; Smilansky, 1968; Smith & Dodswok, 1978). Other studies have found no differences in social play between children of low and middle SES (Tizard, Philips, & Plewis, 1976; von Zuben, Crist, & Mayberry, 1991). The

limitations of many of the studies is that the researchers used poor methodological procedures and a narrow definition of what constitutes social play.

Rationale

Studying the relationship between SES and social play is important because both of these factors have been shown to influence children as they develop and practice the social skills needed to be socially competent (Arthur et al., 1999; Johnson et al., 1987; Ladd & Hart, 1992). Social incompetence in early childhood has been associated with many problems later in life (Berndt, 1983; Rubin & Daniels-Beirness, 1983; Rydell et al., 1997). Children of low SES have an increased risk of developing problems related to social incompetence as compared to their peers of middle and high SES (Lonigan et al., 1999; Seccombe, 2000; Stipek & Ryan, 1997). Therefore, if low SES negatively influences social play, intervention designed to improve social play skills may be warranted.

Purpose Statement

The purpose of this study was to determine if significant differences exist in the social play of children from low and middle SES from 2 to 5 years of age.

Basic Definition of Terms

Adolescence: the period of life from age 11 to 20 years (Papalia et al., 2001).

Childhood: the period of life from age 2 through 11 years of age (Papalia, Olds, & Feldman, 2001).

Early childhood: the period of life from age 2 to 6 years (Papalia et al., 2001).

Middle childhood: the period of life from age 6 to 11 years (Papalia et al., 2001).

Social Competence: "exhibiting a positive demeanor around or toward others, having accurate social information processing abilities, and displaying behaviors that lead them to be well-liked by others" (Creasey et al., 1998, p.118).

Social play: "a state of engagement in which the successive, nonliteral behaviors of one partner are contingent on the nonliteral behaviors of the other partner" (Garvey, 1974, p.163).

Social skills: "goal-directed, learned behaviors that allow one to interact and function effectively in a variety of social contexts" (Sheridan & Walker, 1999, p.687).

Sociodramatic play: "when several children take on different roles and interact with each other in terms of a situation that they have spontaneously created" (Rosen, 1974, p.920).

Socioeconomic status: "an individual's, a family's, or a group's ranking on a hierarchy, according to its access to or control over some combination of valued commodities such as wealth, power, and social status" (McLoyd, 1998, p.187).

Chapter 2: Literature Review

Social play, or play with peers, serves as children's primary means for peer interaction. As such, social play provides the opportunity for children to practice and develop social skills including perspective taking, sharing, cooperation, peer interaction, turn-taking, resolving social conflicts, and understanding social rules (Johnson et al., 1987; Sheridan & Walker, 1999). Children who have mastered these social skills are considered socially competent, which is being able to effectively interact with others (Berndt, 1983). Social competence in early childhood has been associated with social competence in middle childhood, adolescence, and adulthood (Berndt, 1983; Creasey et al., 1998; Ladd, 1983; Rydell et al., 1997). Children who are not considered socially competent by others are at higher risk than their socially competent peers for developing problems in adolescence such as delinquency, academic difficulties, poor peer interactions, and mental health disorders (DeRosier et al., 1994; Hymel et al., 1990; Rubin & Daniels-Beirness, 1983). Social play develops the social skills needed to be socially competent; therefore, successful play experiences in early childhood (ages 2 to 6 years old) are critical to future social development (Arthur et al., 1999; Connolly et al., 1988; Garvey, 1974; Howes, 1987; Rubin, 1980; Sheridan et al., 1999).

Early childhood is an especially important period of time for children of low socioeconomic status (SES) (Eamon, 2001). During early childhood, there are many factors that could positively or negatively influence the development of children of low SES, including the development of their social play skills (McLoyd, 1998). Studying the social play of children of low SES is important because children of low SES have been shown to exhibit more socially incompetent behaviors and have more problems

associated with social incompetence than their peers of higher SES (Bradley & Corwyn, 2002; Dutton & Levine, 1989; Eamon, 2001; McLoyd, 1998). These problems include delinquency, academic difficulties, social withdrawal, aggression, and mental health disorders (Lonigan et al., 1999; Seccombe, 2000; Stipek & Ryan, 1997). Children of low SES have also been shown to have difficulties with the social skill of peer interaction (Conger et al., 1994; Duncan et al., 1994; McLoyd, Ceballo, & Mangelsdorf, 1996).

However, few studies have examined the relationship between SES and social play, and those studies have yielded mixed results (Griffing, 1980; Rosen, 1974; Smilansky, 1968; Smith & Dodswok, 1978; Tizard et al., 1976; von Zuben et al., 1991). In addition, the majority of the studies used poor methodological procedures, defined social play differently, and were conducted a number of years ago.

Outline of Literature Review

The purpose of this literature review is to describe the studies done to date on the relationship between SES and social play. The literature review is divided into two main groups: the relationship between social play and social competence, and the relationship between SES and social play. First, a model of social competence will be discussed, which serves to guide the literature review. The model of social competence offers a top-down approach, with social competence being comprised of many underlying factors. Therefore, after the model of social competence, the importance of social competence and the social skills needed to be socially competent will be discussed. Next, the classification system of social play behaviors will be outlined. The literature review will then focus on SES and its relationship to social competence and social play. The

literature review ends with a discussion of the relationship between SES and social play, the focus of the present study.

Theoretical Basis of Social Competence

Rose-Krasnor (1997) developed the Prism Model to explain social competence. In the model, social competence is defined as "effectiveness in interaction" (Rose-Krasnor, 1997, p.119). The Prism Model is divided into three levels: Theoretical, Index, and Skills. The Skills Level is at the bottom of the prism and consists of the social skills upon which the higher levels are built. These skills include perspective taking, turn-taking, cooperation, sharing, peer interaction, communication, resolving social conflicts, and understanding social rules (Rose-Krasnor, 1997). The individual's motivation for social behavior is also part of the Skills Level. If a problem exists at the Skills Level, then the other two levels will not be fully developed.

The middle level of the model is the Index Level, consisting of the Self and Other Domains. The Self Domain includes the individual's sense of autonomy, consisting of the individual's ability to achieve his or her personal social goals and his or her feelings of social self-efficacy (Rose-Krasnor, 1997). The Other Domain consists of the individual's relationship with others, including sociometric status, friendships, peer interactions, and the ability of the individual to exhibit appropriate social behavior (Rose-Krasnor, 1997). Conflict between the two domains is inevitable because the individual has a need to fulfill his or her personal social goals (Self Domain), but at the same time must be cognizant of the expectations society places on him or her (Other Domain). If this conflict is not resolved, then the individual cannot reach the Theoretical Level of social competence (Rose-Krasnor, 1997).

The Theoretical Level is the blending of the Skills and Index Levels to form social competence. At the Theoretical Level, social competence emerges as a result of interactions with other people, and therefore is context-dependent meaning that behaviors that are effective in one context may not be appropriate in another. In addition, social competence is dependent on the individual's specific goal for the situation (Rose-Krasnor, 1997). For example, skipping class to go to the movies with friends is successful if the goal is to make the friends happy, but is not successful if the goal is to get a good grade in the class.

According to the Prism Model, assessment of social competence should be done at the Index Level, because the focus is on the individual's feelings of self-efficacy, as well as on his or her interaction with others. Therefore, it would be appropriate to assess a child's social competence by assessing his or her social play. Intervention is most successful at the Skills Level, because the specific social skills and motivational characteristics that are lacking are addressed (Rose-Krasnor, 1997).

Why Social Competence is Important

Playing on the playground with other children, waiting appropriately in the lunch line, sharing a toy: children who are socially competent experience these situations on a daily basis. Children who are socially competent "exhibit a positive demeanor around or toward others, have accurate social information processing abilities, and display behaviors that lead them to be well-liked by others" (Creasey et al., 1998, p.118). Children who are not socially competent face the same experiences, but with a very different outcome: playing alone on the playground, kicking children in the lunch line, taking a toy from another child at playtime.

Socially competent children engage in numerous reciprocal peer interactions, as determined in a longitudinal study by Vaughn et al. (2000) of 471 children from six Head Start programs. In contrast, children who lack social competence have fewer peer interactions (Berndt, 1983). For example, Hymel et al. (1990) began a longitudinal study of children in second grade and followed them for 3 years. The results of the study showed that in second and fifth grades, the children who were seen as being the least popular were also those who exhibited aggressive, hostile, and defiant behaviors. Furthermore, a high percentage of the children who in second grade were seen as being socially withdrawn and who interacted less with their peers displayed low self-esteem and negative self-perception in fifth grade (Hymel et al., 1990). This study seems to indicate that the lack of socially competent behaviors leads to internalized and externalized problems. Another longitudinal study examined the relationship between social rejection in first grade and teacher ratings of aggressive behavior 4 years later (Dodge et al., 2003). Ratings of aggression were two times higher for children who were rejected by peers in first grade than ratings for their peers who were not socially rejected (Dodge et al., 2003). The hypothesis that children who are socially incompetent are those who are rejected by their peers is supported by Ladd's (1983) study on 48 children in third through sixth grades who were divided into popular, average, and unpopular (rejected) groups. The children were observed on the playground over a 16-week period. The results of the study were that the children who were in the popular and average groups engaged in more social interactions than the children in the rejected group. The children who were rejected spent more time alone, and when playing with other children played in smaller groups and with younger children than their classmates who were

considered to be in the popular and average groups (Ladd, 1983). The fact that the children who were rejected played with younger children is significant because they might not have had the same opportunities as their classmates to develop age appropriate and socially acceptable behaviors, which could further increase their risk of developing behavioral, social, academic, and emotional problems in adolescence and adulthood. Parker and Asher's (1987) review of literature and the study by DeRosier et al. (1994) further supports the view that rejected children are at risk for future problems including dropping out of school and engaging in juvenile and adult criminal activity. However, the length of time the peer rejection persisted influenced the severity of the academic and behavioral problems. These findings lend support to the importance of identifying and addressing social incompetence as early as possible.

The studies summarized above (DeRosier et al., 1994; Dodge et al., 2003; Hymel et al., 1990; Ladd, 1983; Parker & Asher, 1987; Vaughn et al., 2000) indicate that children who were socially rejected have difficulties with developing friendships, interpersonal relationships, and social behaviors, which suggests incompetence in the Other Domain at the Index level of the Prism Model of Social Competence (Rose-Krasnor, 1997). These difficulties may have led to social incompetence that persisted over time.

What are Social Skills

Social skills are a necessary attribute for the development of social competence. Social skills are "goal-directed, learned behaviors that allow one to interact and function effectively in a variety of social contexts" (Sheridan & Walker, 1999, p.687). Social skills include perspective taking, turn-taking, cooperation, sharing, peer interaction,

communication, resolving social conflicts, and understanding social rules (Johnson et al., 1987).

Perspective taking involves understanding another person's viewpoint, including understanding what they see, how they feel, and what they think (Johnson et al., 1987). The child who understands why another child is upset demonstrates perspective taking. Turn-taking is "to succeed one another in order or to alternate" (Levine, 1998, p.2038). Turn-taking would be demonstrated by the child who pushes the car down a ramp and then lets another child do the same. Cooperation is defined as working together to complete a task (Garvey, 1990). A group of children all helping to build a castle out of blocks is an example of cooperation. Sharing is defined as "giving or receiving a part of something" (Levine, 1998, p.1759). An example of sharing occurs when a child lets another child use his or her scissors. Peer interaction involves "entry into play groups, play with peers, affective expressions, and other behavior that leads to peer acceptance and popularity" (Howes, 1987, p.252). Communication is being able to "express oneself in such a way that one is readily and clearly understood" (Costello et al., 1997, p.282). Conflict, "coming into collision or disagreement with another person" (Levine, 1998, p.428) is an inevitable part of life (Timm & Peterson, 2000). Therefore, the ability to resolve conflict is an essential social skill. The social skills defined in this paragraph are part of what constitutes social rules-- interacting in ways which society deems appropriate (Johnson et al., 1987).

There are many different theories that attempt to explain how social skills are developed. The infant-caregiver attachment theory states that infants' emotional bonds with their parents shapes future social behaviors (Bretherton, 1985). From the moment of

birth, the infant engages in behaviors (crying, smiling, vocalizing, and clinging) that are designed to elicit his or her parent's attention. The parent also demonstrates behaviors that are intended to soothe and care for the child. The adequacy of the parent's response to the infant helps to determine the level of security of the infant-caregiver bond (Bretherton, 1985). When there is trust between the parent and child, interactions between the two can take place that "afford the child the opportunity to observe, incorporate, practice, and refine social skills, such as give and take, conflict management, and exchange of positive affect" (Creasey et al., 1998, p.119). The development of positive peer interaction through parent-infant bonding was demonstrated in a study by Suess et al. (1992). The researchers found that children with insecure attachments to their parents were less curious, exhibited less positive affect during peer interactions, and had less positive relationships with peers in their preschool and school years (Suess et at., 1992).

Other theories consider the role parents and teachers play in teaching and facilitating social skill development (MacDonald & Parke, 1984). Parents and teachers act as models of appropriate social interaction by demonstrating social behaviors that the child can imitate (Ladd, 1992). Parents and teachers also play an important role in shaping the child's social skill development by providing opportunities for the child to practice appropriate social behaviors through interaction with peers (Johnson et al., 1987).

Peer interactions are crucial for the development of social skills (Gutt, 2000; Ladd, 1999; Parker & Asher, 1987). Children in day care centers, preschools, and schools spend the majority of their day with peers. Through modeling and imitation,

children learn and practice social skills that they do not have the opportunity to use with their parents (Ladd, 1999). For example, when two children are playing together the children need to use different social skills and behaviors than they would if playing with their parents. Children who do not have the opportunity to interact with peers in social play have less opportunity to practice those social skills needed to become socially competent (Berndt, 1983; DeRosier et al., 1994; Ladd, 1983).

Given that peer interactions are the primary means through which children develop and practice social skills, and play is the primary occupation of childhood and the means through which children interact (Parham & Primeau, 1997), it can be hypothesized that through play with peers children develop social skills (Johnson et al., 1987; Ladd & Hart, 1992). Play with peers is referred to as social play, where the actions of one child influence the actions of their playmate (Garvey, 1974, p.163).

The Importance of Social Play in the Development of Social Competence

Social play provides freedom and safety for the child to practice new skills and behaviors (Sutton-Smith, 1966). The child engages in play very early in development. Initially, parents are the child's primary play partners (Haight & Miller, 1993). Parent-child games involve mutual interaction, turn-taking, repetition, and pretense, and become increasingly more interactive and child directed (Johnson et al., 1987). As the child grows older, play with peers becomes important (Parham and Primeau, 1997). Specifically, social play "provides the medium for the identification of the emergence of the broader concept of social competence, while at the same time providing the context in which peer interaction can be enhanced and developed" (Arthur et al., 1999, p.369).

Many studies have demonstrated the relationship between social play and social competence. Connolly et al. (1988) conducted a research study with the intent of examining the relationship between social play and social interaction. The participants were 37 children who attended day care centers and whose average age was 59 months old (Connolly et al., 1988). The researchers selected the toys and playmates of the children, thus potentially biasing the results because the children may have engaged in different play behaviors than if they were observed during free play. The results of the study were that when engaged in social play, the children's affect was more positive, the duration of play was longer, play was more cooperative, and there was more peer interaction, as compared to when the children were engaged in nonsocial play (Connolly et al., 1988). Howes and Matheson (1992) also examined the relationship of social play and social competence by observing 72 children over a period of 3 years who were between the ages of 13 to 24 months old at the beginning of the study. The study demonstrated that children who engaged in more social play at earlier ages were identified by their peers and teachers as being more sociable and less aggressive and withdrawn than their peers who did not engage in as much social play (Howes & Matheson, 1992). In addition, Arthur et al. (1999) conducted a review of literature with the intent of examining the relationship of play to the development of peer interaction and social competence in children with developmental disabilities. The studies reviewed found that the majority of peer interactions occurred during play. Therefore, the authors concluded that play served as the medium through which social competence was developed (Arthur et al., 1999).

Another study that examined the relationship between children's nonsocial play and their social functioning was Spinrad et al.'s (2004) study of 138 preschoolers. In the study, nonsocial play was divided into two types: solitary play and reticent play. Solitary play was defined as "quiet engagement in exploratory or constructive activities while embedded in a larger group of peers" (Spinrad et al., 2004, p.67). Reticent play was "evidenced by onlooker and unoccupied behaviors" (Spinrad et al., 2004, p.67). The results of the study were that nonsocial play was associated with peer exclusion and rejection (Spinrad et al., 2004).

Clearly a relationship exists between social play and the development of the social skills needed for social competence. However, there has been a debate as to whether social play develops or reflects social skills. Rubin (1980), in his review of literature, examined these two competing hypotheses. He concluded that social play is connected to the development of social skills, but a causal relationship between the two cannot be conclusively stated (Rubin, 1980). However, whether social play causes or reflects social skill development, children need to practice and refine their skills, and peer interaction during social play provides a context for this to occur (Howes, 1987; Ladd, 1999; Sheridan et al., 1999).

Classification of Social Play Behaviors

There are many play theorists who have developed classifications of social play. For the purpose of this paper, the classifications of social play developed by Howes (1980), Ladd (1983), and Parten (1932) will be used. All three classification systems identify types of play that are interactive and noninteractive, and loosely follow a

developmental sequence with noninteractive play preceding interactive play (Johnson et al., 1987). This progression is outlined in the proceeding paragraphs.

The first level of play is unoccupied behavior (Ladd, 1983; Parten, 1932). This occurs when the child is alone, is not engaged with others, and does not appear to be doing anything. Onlooker behavior differs from unoccupied behavior in that the child is still alone and not playing, but is watching other children play (Ladd, 1983; Parten, 1932). Solitary play occurs when the child plays alone (Ladd, 1983; Parten, 1932). Parallel play occurs when the child engages in similar activities as other children, but does not interact with them (Howes, 1980; Ladd, 1983; Parten, 1932). Howes includes a category of play that is a transition between the noninteractive and interactive play categories referred to as parallel play with mutual regard (Howes, 1980). Mutual regard means that the children are aware of each other and engage in eye contact. This stage is the beginning of learning social rules and perspective taking.

The first true interactive category of play is simple social play. Simple social play occurs when children are engaging in similar activities and interact socially with one another by smiling, vocalizing, offering or receiving an object, or any other social behavior (Howes, 1980). Simple social play requires the social skills of sharing, communication, and understanding basic social rules of appropriate verbal and nonverbal behavior. Associative play is the next interactive category in the sequence of play. In associative play, children engage in the same activity without a common goal (Parten, 1932). Associative play develops and provides practice for the skills of sharing, turn-taking, peer interaction, and understanding social rules. Howes' (1980) definition of complementary and reciprocal play with mutual awareness is equivalent to Parten's

(1932) associative play. Complementary and reciprocal social play is the same as associative play except that in complementary and reciprocal social play the children direct a social bid, such as a verbal command, to one another (Howes, 1980). Complementary and reciprocal social play addresses the social skills of sharing, turn-taking, peer interaction, communication, and understanding social rules. Cooperative play occurs when the children are working towards a common goal and take on specific roles (Ladd, 1983; Parten, 1932). Cooperative play requires all social skills including turn-taking, cooperation, communication, perspective taking, sharing, peer interaction, social conflict resolution, and an understanding of social rules.

Ladd (1980) also adds three other categories of interactive play to his coding scheme: social conversation, argue, and rough-and-tumble. In social conversation, the children talk with one another, but do not engage in an activity. Arguing occurs when the children talk hostilely to one another. In rough-and-tumble play, the children engage in physical activity with one another, such as fighting and wrestling (Ladd, 1980).

There has been some controversy over the specific timeline for the development of the differing categories of social play (Johnson et al., 1987). Parten (1932) suggested the following developmental sequence for her social play categories: solitary play (2 to 2 ½ years old), parallel play (2 ½ to 3 ½ years old), associative play (3 ½ to 4 ½ years old), and cooperative play (4 ½ years old). However, other studies have demonstrated that even children as young as 3 years old engage in cooperative play (Howes, 1987). For example, Howes (1987) conducted a study looking at the development of social competence in children. The results were that children 13 to 24 months old showed associative play, and that cooperative play was observed in children

in the 25 to 36 month old age range, with the complexity of the play increasing with age (Howes, 1987). As for the categories of social conversation, argue, and rough-and-tumble play, Ladd (1983) states that there is no developmental sequence among the three.

Socioeconomic Status and Social Competence

Socioeconomic status has also been shown to influence social competence. There is a debate as to what factors constitute SES. Dutton and Levine (1989) defined SES as "a composite measure that typically incorporates economic status as measured by income; social status, measured by education; and work status, measured by occupation" (p.30). However, other research has indicated that defining SES by income alone is a better measure of health and development because income is a more straightforward measure than occupation and education (McLoyd, 1998). In addition, income is argued to be a better measure of the relationship between SES and development because income is usually what determines access to services and opportunities (Williams & Collins, 1995).

Regardless of the definition of SES used, research has shown that children with low SES are more likely than children from higher income families to exhibit socially incompetent behaviors such as social withdrawal, limited peer interactions, and aggression (Lonigan et al., 1999; Stipek & Ryan, 1997). These behaviors put children at risk for the consequences of social incompetence, including delinquency and criminality, and academic difficulties (Seccombe, 2000). McLoyd (1998) reported that children of low SES were more likely to drop out of school and have emotional and behavioral problems than their peers of higher SES. McLoyd concluded that persistent poverty had more of a negative impact on the development of social competence than did temporary

poverty (1998). Seccombe (2000) found that children of low SES were more likely to have depression, low self-esteem, poorer and fewer peer relationships, and academic problems than their peers who were not of low SES. Eamon (2001) discovered that children of low SES were unpopular among their peers, had conflicts with their peers, and displayed disruptive classroom behaviors. Bradley and Corwyn's (2002) review of research showed that children of low SES had a higher dropout rate, more incidences of mental illness, and fewer positive peer relationships than their peers of middle SES.

A limitation to all of the studies is that none of them indicate a direct cause and effect relationship between SES and social competence. Many studies define SES differently and there are so many factors associated with SES that it is difficult to assign causality. There have been many hypotheses to explain why SES and social competence are related. One hypothesis is that parents from low SES have fewer positive interactions with their children, resulting in an insecure parent-child bond (Bradley & Corwyn, 2002). Living in an impoverished environment for long periods of time is extremely stressful, which can lead to decreased energy and a negative emotional state, leaving less time and ability for the parent to interact with his or her child (Bradley & Corwyn, 2002). Another hypothesis is that children of low SES live in an environment that offers fewer social opportunities, inappropriate role models, inadequate supervision, and negative peer influences (Eamon, 2001). For example, children of low SES often do not have access to materials (such as toys) and opportunities (such as playing on the playground) that provide the chance for the child to develop and practice the social skills needed to be socially competent (Bradley & Corwyn, 2002). Even though a causal relationship cannot

be ascertained, SES and social competence are definitely correlated (Eamon, 2001; McLoyd, 1998; Seccombe, 2000; Stipek & Ryan, 1997).

Socioeconomic Status and Social Skills

Even though many studies have been conducted on SES and social competence, not many studies have looked at the social skills that comprise social competence. The only social skill that has been directly researched is peer interactions. McLoyd et al. (1996) found that children of low SES had more conflict with peers including fighting, aggression, and disobedience. Many other studies have also found that children of low SES have fewer and poorer peer relationships (Conger et al., 1994; Duncan et al., 1994; Gerard & Buehler, 1999).

Socioeconomic Status and Social Play

There has been limited research on SES and social play, and the majority of the studies that have been conducted were limited by poor methodological procedures. One major problem with the research on social play is that many different definitions of social play have been used. Smilansky (1968) explored what she called sociodramatic play in 3 to 6 year old children of low, middle, and high SES. Sociodramatic play is "a form of voluntary social play activity in which preschool children participate" (Smilansky, 1968, p.7). Sociodramatic play occurs "when several children take on different roles and interact with each other in terms of a situation that they have spontaneously created" (Rosen, 1974, p.920). Smilansky (1968) found that children from low SES engaged in no to very little sociodramatic play. However, the children of low SES in Smilansky's (1968) study were children of immigrants of Middle Eastern descent while the children of

middle SES were of European descent, thus culture had the potential to confound the results.

Rosen (1974) also examined sociodramatic play in children of low and middle SES. Rosen used Smilansky's definition of sociodramatic play and came to the same conclusion as Smilansky (Rosen, 1974). However, the children of low SES in Rosen's study were African-American while the children of middle SES were Caucasian, thus culture, as in Smilansky's study, could have confounded the results.

Smith and Dodswok (1978) also looked at sociodramatic play in preschool settings, but called it fantasy play. They too found a difference in sociodramatic play between children of low and middle SES. A limitation of the study was that the staff members of the preschools had varying qualifications, with teachers of the more affluent preschoolers having more education.

Griffing (1980) also studied sociodramatic play and looked at 169 African American kindergarten children of low and high SES. The results of the study were that a significant difference was found between SES and the six components of sociodramatic play: role play, make believe, verbal expressions of make believe, persistence in role play, interactions, and verbal communication (Griffing, 1980). Limitations that threatened the external validity of Griffing's study were that the children were observed in a structured play setting in an unfamiliar room, perhaps confounding the results. In addition, the children of high SES were from suburban schools while the children of low SES were from inner-city schools indicating other variables may have affected the results.

A problem with all of the studies on sociodramatic play is that sociodramatic play is only a small part of social play. Sociodramatic play requires children to take on different roles and interact with each other, all within the context of a situation they created. Using the social play classification systems of Howes (1980), Ladd (1983), and Parten (1932), sociodramatic play would be considered cooperative play, just one of the many categories of social play. In addition, in each of the studies reported above, children from low SES groups differed from children of higher SES groups in a number of ways, making comparison based solely on SES invalid.

Only two studies used Parten's classification of play to examine the differences in social play and SES. Tizard et al. (1976) studied 109 preschool-aged children and found no differences in the level of social play, specifically solitary and parallel play, between children of low and middle SES. However, the study's main purpose was not to examine if there was a difference in social play, but to see if there was a difference in play behaviors in general. In addition, the three preschools used in the study were very different from one another, thus potentially affecting the results.

Rubin et al. (1976) examined the differences in play between preschoolers of low and middle SES using a combination of Parten and Piaget's classification schemes. Piagets's categories of play are: functional play, constructive play, dramatic play, and games with rules. Functional play is "simple repetitive muscle movements with or without objects" (Rubin, Maioni, & Hornung, 1976, p.414). Constructive play is "manipulation of objects to construct or to create something" (Rubin et al., 1976, p.414). Dramatic play is "the substitution of an imaginary situation to satisfy the child's personal wishes and needs" (Rubin et al., 1976, p.414). Games with rules are "the acceptance of

prearranged rules and the adjustment to these rules" (Rubin et al., 1976, p. 414). The results of the study were that children of low SES engaged in more functional and parallel play than the children of middle SES, who displayed more constructive, associative, and cooperative play (Rubin et al., 1976). One limitation of the study is that by combining social and cognitive classification schemes, some of the differences in social play between children of low and middle SES might have been lost.

The most recent study on play and SES was conducted by von Zuben et al. (1991). This study demonstrated no significant difference between the play of preschool-aged children of low and middle SES. However, the purpose of the study was to examine differences in the development of play age and not in social play. In the study, developmental play age included "age-appropriate play behaviors and incorporates social, cognitive, emotional, physical, and cultural factors" (von Zuben et al., 1991, p.114).

Problem Statement

Even though social play has been shown to help children develop and practice the social skills needed to be socially competent, and SES has been shown to be related to social competence, little research has been conducted on social play and SES. The research that has examined social play and SES used poor methodological procedures and a narrow view of what constitutes social play, thus reducing the ability of the studies to be generalized. In addition, the most recent study was conducted in 1991, and factors that were present at that time that could have influenced the results may no longer be relevant.

Relevance to Society and Occupational Therapy

Studying if differences exist in social play between children of low and middle SES is important for many reasons. Social incompetence in childhood is linked to problems later in life (Berndt, 1983; Rubin & Daniels-Beirness, 1983; Rydell et al., 1997). Social competence is dependent on social skills, which are developed through social play (Arthur et al., 1999; Johnson et al., 1987; Ladd & Hart, 1992). Children of low SES have an increased chance of developing problems related to social incompetence as compared to their peers of middle SES (Lonigan et al., 1999; Seccombe, 2000; Stipek & Ryan, 1997). Difficulties with social competence may be better understood if it can be determined that the social play experiences of children of low and middle SES differ. If the social play experiences are different, intervention may be warranted to try to improve the social play of children of low SES. Addressing social competence through social play is congruent with the Prism Model because according to the model, intervention should take place at the Skills Level (Rose-Krasnor, 1997), and social play addresses the social skills that constitute the Skills Level.

Studying the relationship between SES and social play is relevant to occupational therapists because a basic belief of occupational therapy is that play is the primary occupation of childhood (Rodger & Ziviani, 1999; Royeen, 1997; Stagnitti & Unsworth, 2000). Through play, children develop the skills, including social skills, needed to be successful in life (Parham & Primeau, 1997; Schaaf, 1990). However, even though occupational therapists consider play to be very important to development, few studies have examined play, especially social play. Therefore, studies examining play in children would be a valuable addition to the occupational therapy literature.

Chapter 3: Methodology

Research Questions

This study has been designed to answer the following question:

Is there a significant difference in social play behaviors between preschool-aged children of low and higher SES?

Participants

The participants were a convenience sample of children of low and higher (middle to high) SES between the ages of 2 and 5 years old who were enrolled in local play and preschool programs. The participants were recruited from public and private preschool programs in the Central New York state area. All of the programs were inclusion programs, meaning that children with and without disabilities were in the same class. However, children were excluded from the study if they had any special educational or health needs that could potentially limit their ability to engage in social play.

Selection Method

Directors of local preschool programs were contacted to see if the researcher could recruit participants from their programs. Those directors who agreed to support the study were then given informed consent forms to send to the parents of the children in the programs. The children whose parents signed and returned the consent forms to the researcher were then included in the study.

Operationalization of Concepts into Variables

The dependent variable in the study was social play. Social play was defined as "a state of engagement in which the successive, nonliteral behaviors of one partner are contingent on the nonliteral behaviors of the other partner" (Garvey, 1974, p.163). Social

play was broken further into noninteractive and interactive categories. The noninteractive play categories were unoccupied, onlooker, solitary, and parallel play. Parallel play with mutual regard was a transitional category between noninteractive and interactive play. The interactive play categories were simple social play, associative play, complementary and reciprocal social play, and cooperative play. The variable of social play was measured using the Social Play Rating Scale (SPRS), which includes those categories listed above, as well as the other interactive categories of social conversation, argue, and rough-and-tumble play (see Appendix A). An additional category, "other", was included to account for behaviors that did not fall in the above categories. Each participant was observed for a total of 20 minutes during free play at school. For every 30 second interval, the highest level of each participant's social play was recorded on the observation data sheet (see Appendix B) using the SPRS. The number of intervals recorded under each category of play for each participant was counted. The sum of the intervals of the interactive play categories (simple social play, associative play, complementary and reciprocal social play, and cooperative play) were determined and compared with the sum of the intervals of the noninteractive play categories (unoccupied, onlooker, solitary, and parallel play).

The independent variable measured was SES. SES has been defined as "an individual's, a family's, or a group's ranking on a hierarchy, according to its access to or control over some combination of valued commodities such as wealth, power, and social status" (McLoyd, 1998, p.187). For the purpose of this study, SES was measured by the family's income before taxes.

Measurement Instruments

Social Play Rating Scale (SPRS)

A combination of three complementary play scales was used to form the SPRS, which was developed for this study. Howes' (1980) peer play scale, Ladd's (1983) play behavior scale, and Parten's (1932) social play categories were used in this study to measure social play. Prior to the beginning of the study, the researcher and an external judge rated a videotape of free play behaviors of two children ages 48 months old (male) and 42 months old (female) in order to gain proficiency using the SPRS. The SPRS was comprised of categories of social play organized according to the observation of degree of interaction with other children (see Appendix A).

The SPRS categories of noninteractive play behaviors include *unoccupied behavior*, *onlooker behavior*, *solitary play*, and *parallel play*. *Unoccupied behavior* occurs when the child is alone and does not appear to be doing anything (Ladd, 1983; Parten, 1932). *Onlooker behavior* differs from unoccupied behavior in that the child is still alone and not playing, but is watching other children play (Ladd, 1983; Parten, 1932). *Solitary play* takes place when the child plays alone (Ladd, 1983; Parten, 1932). *Parallel play* occurs when the child plays with similar activities as other children, but does not interact with them (Ladd, 1983; Parten, 1932). *Parallel play with mutual regard* is a transitional category between interactive and noninteractive play behaviors and is similar to parallel play, but specifies that the child engages in eye contact with and is aware of the other child (Howes, 1980).

The SPRS categories of interactive play behavior include *simple social play*, *associative play*, *complementary and reciprocal social play*, and *cooperative play*.

Simple social play is observed when children perform similar activities and engage socially with one another by smiling, vocalizing, offering or receiving an object, or any other social behavior (Howes, 1980). *Associative play* occurs when children play with the same activity without a common goal (Parten, 1932). *Complementary and reciprocal social play* is similar to associative play with the additional requirement that the children direct a social bid, such as a verbal command to one another (Howes, 1980). *Cooperative play* occurs when children are working towards a common goal and take on specific roles (Ladd, 1983; Parten, 1932).

The SPRS also contains the category of other interactive behaviors, including *social conversation, argue*, and *rough-and-tumble play*. *Social conversation* is observed when children talk with one another, but do not engage in an activity (Ladd, 1983). *Arguing* takes place when the children talk hostilely to one another (Ladd, 1983). *Rough-and-tumble play* occurs when the children are engaged in physical activity with one another, such as fighting and wrestling (Ladd, 1983). Ladd (1983) also included an "other" category to consist of behaviors that do not fall into the above categories.

Reliability and validity of SPRS. Content validity was established by using categories already described by Howes (1980), Ladd (1983), and Parten (1932). The SPRS included each of the categories from the three theorists in order to create a more comprehensive view of social play. Published interrater reliability of Howes' peer play scale ranged from .87 to .93 with a mean of .89 (Howes, 1980). Ladd (1983) found an interrater reliability for the play behavior scale of 86% by having a reliability judge observe 25% of the observations made by the observer. Using the same measure, Richardson (1996) established a 94% interrater reliability for the play behavior scale by

having a reliability judge categorize 20% of the observations made by the author and having the reliability judge and the author attend practice sessions until at least an 80% agreement was reached. Ivory and McCollum (1999) established interrater reliability of Parten's social play scale by having data collectors view videotapes until 87% interrater reliability was reached. These data collectors then went into a classroom and practiced using the social play scale over a three week period until 87% interrater reliability was established.

Interrater reliability for the SPRS was established by having an external judge and the researcher observe the play of children. Interrater reliability for these observations ranged from $r = .925$ to $r = .100$ for all of the SPRS categories.

Socioeconomic status (SES)

SES was measured by having the parents complete an information sheet (see Appendix C), which included marking the range in which their pre-tax family income fell. The ranges of income on the information sheet were taken from the form the U.S. Census Bureau uses to collect data. After data for the present research study was collected, it was found that the National Center for Children in Poverty defines low SES as "income below 200 percent of the federal poverty level (FPL)" (National Center for Children in Poverty [NCCP], 2003, p.3). Currently, that income is $36,800 a year for a family of four (NCCP, 2003). Therefore, for the three children whose parents had checked the $35,000 to $49,999 income range on the information sheet (see Appendix C), the researcher contacted the children's programs and asked if the income was above or below $36,800. The researcher then was able to assign the children to low and higher

SES groups based solely on the pre-tax family income. The researcher did not take into account how many people were living in the household.

Support for the use of income to measure SES is provided by the government because the government uses pre-tax family income in all of its census information and in determining if a family qualifies for government programs (NCCP, 2003). In addition, a study conducted by Daly, Duncan, McDonough, and Williams (1999) that sought to identify the best way to measure SES in order to determine the relationship between SES and health found that income was the most widely used and accurate measure of SES in the United States (Daly et al., 1999).

Procedures

After the Review Board for Human Subjects Research reviewed and approved the study (see Appendix D), directors of the Even Start, Head Start, Ithaca Community Childcare Center, and Drop In Children's Center were contacted (see Appendix E). The purpose and procedures of the study were explained to the program directors. The directors then returned letters of support to the researcher. Once the directors gave permission to recruit participants from their programs, the researcher sent a cover letter explaining the purpose of the study (see Appendix F) to the teachers of the programs. The teachers were asked to sign the cover letter and fill out a Questionnaire on the Program (see Appendix G), and return them both to the researcher. The teachers then sent a cover letter (see Appendix H), an information sheet (see Appendix C) and an informed consent form (see Appendix I) to each child's parents. Parental consent specified permission to observe the child's play in the preschool environment. Some parents also consented to allow their child's play to be videotaped, to allow for more

careful analysis of the play at a later date. However, because not all parents in any given classroom agreed to allow their children to be in the study, none of the children were videotaped. Once parental consent was received, the teachers of the programs in which the children were enrolled were contacted and an appointment was made for the researcher to observe the children.

Twenty minutes of free play experiences in the preschool environment were observed for each participant. The environment was not manipulated in any way as it was determined that preserving the natural play context would give a more accurate description of each participant's play behaviors. The researcher had observed the programs prior to collecting data so that the children could become accustomed to and not be distracted by her presence. In cases where 20 minutes of consecutive free play was not available, the participants were observed for intervals totaling 20 minutes of free play. Observations occurred between 9:30 a.m. and 11:45 a.m. for all participants because free play time was at approximately the same time every day for all four programs. The researcher recorded the social play behavior exhibited by the child during each 30 second interval of observation using the SPRS data form (see Appendix B). To maintain accuracy of the time intervals, a tape recorder with head phones beeped every 30 seconds so the researcher knew when to record the data. Forty units of behavior were recorded for each child who participated in the study. In instances where the child had engaged in several play behaviors during the 30 second time interval, the most interactive play behavior was chosen. In order to account for potentially confounding variables, such as type of preschool and amount of time attending preschool, additional data was

collected on the information sheet and was taken into consideration in the analysis of the results.

Research Design

The design was a nonexperimental descriptive study which used the method of observation to record the participants' play patterns.

Analyzing and Interpreting Data

SPSS version 11.5 for Windows was used to analyze the data. To determine whether there was a significant difference in social play between children of low and higher SES, children were grouped according to income, and an independent samples *t* test was used. Each of the categories of social play was analyzed. In addition, the mean *interactive play behaviors* (simple social play, associative play, complementary and reciprocal social play, and cooperative play), the total mean *noninteractive play behaviors* (unoccupied, onlooker, solitary, and parallel play), and mean *other interactive behaviors* (social conversation, argue, and rough-and-tumble play) were compared between the two groups using an independent samples *t* test. In addition, the *interactive play behaviors* and *other interactive behaviors* were combined and an independent *t* test was run to compare the *total interactive behaviors* between the two groups. Analyses comparing the differences in each of the social play categories based on gender were also computed using independent *t* tests. Analysis of variance (ANOVA) was used to compare the differences in social play categories among the four programs.

Limitations

This study was limited by the use of a sample of convenience of children enrolled in local play and preschool programs. A further limitation was that studying children in a

preschool setting introduces many variables that could threaten the validity of the study such as the amount of time a child has spent in that particular program, the number of years a child has attended a structured program, and the familiarity of the children with one another. To account for these limitations, demographic data related to these variables was collected for each participant. Another limitation of the study was that the children may have been aware of the observer's presence, which might have distracted the children and interfered with their normal play patterns. In addition, the researcher collected the data, which could have skewed the results. This limitation was minimized by having an external rater score 18% of the play behaviors of the participating children to validate the researcher's observations. All of the limitations discussed above threatened the ability of the study to be generalized.

Delimitations

This study was delimitated by observing only the social play categories described by Howes (1980), Ladd (1983), and Parten (1932). This study was further delimitated because only children from preschools in Central New York were included in the study.

Assumptions

In this study it was assumed that: a) social play helps children develop and practice social skills needed to be socially competent, b) observing social play is a way to view socially competent behaviors, c) children were observed in their natural play environments, d) the observer did not significantly affect the children's social play behaviors, e) the observed play behaviors accurately reflected the children's social play experiences, f) pre-tax family income is a reliable measure of SES, and g) family income was accurately reported on the information sheets.

Chapter 4: Results

In this chapter, a demographic description of the participants is provided as well as the results of the research study based on the research question outlined in Chapter 3.

Participants

Twenty-five children (10 females, 15 males) from four early childhood programs in Central New York participated in the study. The children were divided into two groups based on income. There were 8 children (2 females, 6 males) in the low SES group (a pre-tax family income of $36,800 or less per year). The higher (middle to high) SES group (pre-tax family income greater than $36,800 per year) consisted of 17 children (8 females, 9 males). Demographic data was collected on gender, age, months attending current program, months attending other programs, number of siblings, number of adults living in household, and years of education of parents. Descriptive statistics for each group's demographic data were calculated and independent *t* tests were run to ensure that no significant differences existed between the two groups (see Table 1). These results indicate that children from higher SES, when compared with children from low SES, had attended a preschool setting for a significantly longer period of time ($t(22) = -2.069, p < .05$) and had significantly more adults living at home with them ($t(22) = -2.168, p < .05$). In addition, their mothers had significantly more formal schooling than mothers of children of low SES ($t(15) = -2.675, p < .05$). No significant differences for the remaining demographic categories were found.

Research Question

The research question for this study was: Is there a significant difference in social play behaviors between preschool-aged children of low and higher SES? An independent

t test was performed to determine if a difference in the average percentage of time engaged in *interactive*, *noninteractive*, and *other interactive play behaviors* existed between the children of low and higher SES. The results indicated that there were no significant differences between the two groups (see Table 2) when comparing intervals of *interactive* and *noninteractive play behaviors*. Results approached significance for the *other interactive behaviors* ($t(23) = -1.812, p = .083$), with children from higher SES demonstrating more *other interactive behaviors*.

In addition, independent *t* tests were run for each social play category in the SPRS (see Table 3). The analysis revealed that there were no significant differences between the two groups in any of the individual categories. However, the social conversation category approached significance ($t(23) = -1.865, p = .075$) with children from higher SES engaging in more social conversation with their peers.

Additional Analyses

Analyses comparing the differences in each of the social play categories based on gender were also computed using an independent *t* test. Table 4 reports the means, standard deviations, and *t* test results for social play categories between females and males. There was a significant difference between the mean intervals of *total noninteractive behaviors* ($t(23) = 2.367, p < .05$) with females displaying more *noninteractive behaviors*. Within the noninteractive behavior category, males participated in significantly more onlooker behavior ($t(23) = -2.386, p < .05$) than females. The categories of *total interactive play behaviors* and cooperative play approached significance with males demonstrating more of these behaviors than females. Engagement in parallel play in females as compared to the males was also approaching

significance. To rule out influence of age on these findings, an independent *t* test was computed to compare the mean age between the two groups with the results indicating that no significant difference existed between the two groups ($t(23) = .039$, $p = .965$).

Finally, the difference in intervals of *interactive play behaviors, other interactive behaviors, total interactive behaviors,* and *noninteractive social play behaviors* between the different programs was compared using analysis of variance (ANOVA). Results are displayed in Table 5. No significant differences were found across the different programs ($F(1,3) = 1.285$, $p = .306$).

Chapter 5: Discussion

Research Question

The research question for this study was: Is there a significant difference in social play behaviors between preschool-aged children of low and higher SES? The results of the study were that no significant differences were found between the two groups in any of the social play categories. These results are supported by previous studies conducted on social play. Tizard, Philips, and Plewis (1976) examined the social play of 109 children of different SES from three preschools. The results of the study were that there were no significant social class differences in the amount of solitary, parallel, and cooperative play (Tizard et al., 1976). Von Zuben et al. (1991), in a study examining the play of 84 preschool children from differing SES, indicated no significant differences existed in the social play of the two groups. The fact that no differences were found between the social play behaviors of children of low and higher SES is significant because the findings show that low SES is not necessarily associated with social incompetence in early childhood.

Educational Setting

Effectiveness of program. There are several possible explanations as to why a difference in social play behavior between the two groups was not found in the present study. It is possible that the educational settings from which the children were drawn may have influenced the findings. The general goal of preschool programs is to influence the development of children to prepare them for school (Devaney, Ellwood, & Love, 1997). Therefore, the focus is on cognitive, physical, social, and emotional development. Given that play is the primary occupation of childhood and influences all areas of

development (Parham & Primeau, 1997), play is a major part of the preschool curriculum (Gorey, 2001). For the four programs that participated in the study, the children had at least 2 hours a day of free play. Another hour of the day consisted of structured activities that often closely resembled play. Therefore, it is possible that no results were found between the two groups because each of the preschools fostered the children's social play skills.

Although studies on the effectiveness of early intervention programs for children of low SES have not directly examined play, the studies have looked at factors that probably were influenced by play. For example, Devaney et al. (1997) reviewed all studies conducted on the effectiveness of Head Start programs, federally sponsored child development and preschool programs for children of low SES. The results were that across 17 studies, Head Start had beneficial effects on children's social and emotional development by the end of the Head Start year (Devaney et al., 1997). The High/Scope Perry Preschool study provides further support for the influence preschool programs can have on social competence. The Perry preschool was very similar to Head Start in its curriculum and population served (Schweinhart & Weikart, 1998). The study compared the long-term outcomes of children of low SES who did not attend preschool, attended preschools that used different curriculum models, and attended the Perry preschool. The findings of the study were that at the age of 23 years, those adults who had attended the Perry preschool experienced fewer emotional problems and felony arrests than those adults born in poverty who did not attend preschool or who attended other early childhood programs (Schweinhart & Weikart, 1998). These results are significant for a number of reasons. First, one of the programs used in the current research study was a

Head Start program, which is a preschool program designed to promote social competence in children from low-income families. Second, it could be hypothesized that the short-and-long term benefits to social competence demonstrated in the Head Start and Perry preschool programs might have been due to a difference in the quality of social play skills performance. Therefore, the fact that no differences were found in the present study between the social play behaviors of the two groups possibly demonstrates the effectiveness preschool programs have in promoting social play and in potentially mitigating the effects that an economically disadvantaged background might have on social play.

Program resources. Another aspect of the preschool settings used in the present study that may have affected study results is that all of the programs had similar environmental resources from which the children could draw. All four programs had distinct areas that were meant to foster a certain type of play. The rooms were divided into the following areas: home living area (kitchen, dolls, dress-up clothes, etc.), large block and truck area, arts and crafts area, fine motor and cognitive area (puzzles, beads, Lego's, etc.), reading area, computer station, gross motor area, and sensory area (water table). The fact that all of the programs were very similar in structure and available materials could explain the absence of differences between the two income groups. Given that all of the programs had similar resources, it could be said that the environment afforded the opportunity for the children to develop and practice social play, therefore decreasing the effects of income on social play (Larson, 1995). This hypothesis is supported by a study that examined six preschool classrooms and found that classroom structure significantly influenced the type of play in which the children engaged

(Roopnarine et al., 1992). Therefore, enrolling children of low SES in quality preschool programs to mitigate the effects that SES may have on social play might be warranted.

In addition, studies have examined the types of social play most often associated with certain toys. Play with arts and crafts materials, play in the water table, and play with puzzles and beads has been associated mainly with solitary and parallel play (Harper & Huie, 1998; Parten, 1932). Conversely, playing house and playing with dolls has been related to the most highly interactive type of play (Parten, 1932). Play with blocks was divided equally between associative and cooperative play (Harper & Huie, 1998). It is possible that the similarity of play materials across programs may have supported similar social play behaviors among participants. If the children had been examined in their home environment, or if the children of low SES did not have access to quality preschool settings, then it is possible that differences in social play skills between the two groups might have been found, again reiterating the importance of enrollment in quality preschool programs. In addition, the majority of the children in the study from higher SES were recruited from a program where the teachers would set up an activity (usually an arts and crafts activity) for the children during free play time. Given that arts and crafts are most often associated with solitary and parallel play (Harper & Huie, 1998), this could have influenced the study's findings. Additionally, in this same program the water table was always available for the children, whereas the other programs did not always have the water table open. Given that the water table has been found to be associated with solitary and parallel play (Harper & Huie, 1998), then the availability of the water table could have increased the noninteractive play behaviors of the children who attended this program.

Training of staff. Another possible confounding factor was that in all four programs, the staff had received early childhood training and the Head Start teachers were certified through the New York State Education Department. This fact is significant because a previous study demonstrated that staff with more training exert more influence on the children's play behaviors then those staff who have less training (Tizard et al., 1976). It may be significant that the only program that employed certified teachers (indicating greater training) was the Head Start program; this was the program from which most of the children in the low income group were recruited. The fact that the Head Start teachers had the most education and that the overall goal of Head Start is to "bring about a greater degree of social competence in preschool children from low-income families" (Devaney et al., 1997, p.102), may have resulted in environmental and programming effects that fostered social play among the children who attended Head Start. In contrast, the overall goal of the other three preschool programs was to prepare children for Kindergarten, making the focus more educational in nature.

Peer Interactions

Social play may be related to social competence because it provides the opportunity for peer interaction, a critical component of social competence (Ladd, 1999). Through watching and interacting with their peers, children acquire and learn skills, including social skills (Craig-Unkefer & Kaiser, 2002). Consequently, children whose social play is immature may imitate and learn from their peers, thus improving their social play skills. A study by Roopnarine et al. (1992) found that children in mixed-age settings were capable of adjusting their level of social interaction to match their peers' developmental levels. These results are significant because that means that the children

in the present study could have been strongly influenced by their peers. Another factor in the present study is that all of the programs from which the children of low SES were recruited also included children of middle and high SES. Therefore, the children had opportunities for peer interaction and role modeling across SES levels, which could have moderated any differences in social play behaviors.

Criticism of Social Play Categories

There has been some criticism that observing children using only the categories of social play is an ineffective way to assess play. Rubin (1977) argues that using Parten's scale without including cognitive play categories (such as those of Piaget) does not provide enough information to be able to find a difference in play between two groups of children. In his research, Rubin (1977) found that when examining children of differing SES, if he had just used the categories of solitary, parallel, associative, and collaborative play, he would not have found any differences between the two groups. However, by also using Piaget's cognitive play categories, he found differences between the two groups for particular forms of solitary, parallel, and cooperative play (Rubin et al., 1976). Therefore, it is possible that if the present study had combined Piaget's levels of play (functional, constructive, dramatic, and games with rules) and the social play categories, differences between the two groups might have been found.

Additional Analyses

Gender and Social Play

This study also compared the differences in each of the social play categories based on gender. The results were that females engaged in more parallel play and more *noninteractive behaviors* (unoccupied, onlooker, solitary, and parallel play) than males.

Males engaged in more onlooker behavior, cooperative play, and *total interactive play behaviors* (simple social play, associative play, complementary reciprocal play, cooperative play, argue, rough-and-tumble play, and social conversation), than females. These findings were somewhat unexpected because girls are usually considered to be more "social" than boys (Johnson et al., 1987). However, other studies have reported results similar to those found in the present study. In a study of 26 preschoolers, boys were found to engage in more interactive and less parallel play than girls (Johnson & Ershler, 1981). Sondell (2002) found that boys played in cooperative activities while girls engaged in associative play. Harper and Huie (1998) examined 244 children and found that girls spent significantly more time in art-related activities than boys, and boys spent significantly more time in block play than girls. These findings are significant because art activities have been found to be associated with solitary and parallel play (*noninteractive behaviors*), and block play has been found to be associated with associative and cooperative play (*interactive play behaviors*) (Harper & Huie, 1998). In the present study, boys were found to engage in significantly more onlooker behaviors than girls, which contradicts the rest of the study's findings and findings from other studies because onlooker behavior is considered noninteractive (Howes, 1980, Ladd 1983, & Parten, 1932).

Program and Social Play

No significant differences were found in the interactive play behaviors of the children based on the specific program they attended. This result was not surprising because all of the programs were very similar in nature and program structure has been found to influence children's play behaviors (Larson, 1995). However, when considering

the raw data, participants from the Even Start program demonstrated fewer interactive behaviors than the participants from the other three programs (see Table 5). Yet, because there were only two participants from Even Start, analysis of the data did not yield significant results. There are several possible hypotheses for why participants from Even Start engaged in less interactive play behaviors than participants from the other programs. For one, there were fewer children with whom the participants at Even Start could interact (5 children as compared to 18 or more children at the other programs). In addition, the two participants who were from Even Start were older than their peers who attended the Even Start program. On the other hand, the participants from the other programs had peers of similar ages with whom to play. Additionally, the Even Start program met only two times a week for 3 hours a day while the other programs took place five times per week for at least 6 hours a day. Therefore, the participants from Even Start had less exposure to peers, play materials, and trained educators than the participants from the other programs, thus perhaps demonstrating the influence that these factors may have on social play.

Relationship of Results and Demographic Data

Participants' demographic data was collected to account for potentially confounding variables. The three factors for which a significant difference between the two groups was found was for months attending the current program, the number of adults living at home with the child, and the years of education of the mother. As previously discussed, attending early childhood programs has been found to positively affect children's development (Gorey, 2001). Even though the children from higher SES attended the program longer, the children from low SES had, on average, attended their

current program for almost 12 months, suggesting that they spent enough time in the program for their development, including play skills, to be affected (Devaney et al., 1997). In addition, in the present study no relationship was found between social play and months attending current program ($r = .074$, $p = .732$). A possible reason that the results between the two groups were significantly different for time in current program is that most of the children from the higher SES group attended preschool programs that were in day care settings, so they could have been in that day care since birth. On the other hand, most of the children who were in the low SES group attended preschool programs that were just for 3 and 4 year olds. As for the other two factors, number of adults in household and years of education of mother, the results were as expected, with the children from the higher SES group having more adults in the household and their mothers having higher education levels than mothers of children of low SES. These two factors have been hypothesized to contribute to differences in development between children of differing SES. Some studies have found that children of mothers who have at least a college degree perform better on academic achievement tests and perform better in school than children of mothers with lower education levels (McLoyd, 1998). However, for the present study, no relationship was found between social play and number of adults in the household ($r = -.105$, $p = .625$) or years of education of the mother ($r = -.088$, $p = .738$).

Relationship between Results and Assumptions

Several assumptions were stated in Chapter 3 regarding this study. Based on the results, it is necessary to review some of the assumptions and consider their relationship to the results. One of the assumptions was that children were observed in their natural

play environments. While preschool is one of the children's natural environments, there are other environments in which children play both indoors and outdoors, such as at home, at day care, and at relatives' and friends' houses. Therefore, observing the children playing in a variety of settings may have yielded a better sample of the children's social play behaviors. Another assumption was that the observations accurately reflected the children's social play behaviors. However, only 20 minutes of free play behaviors were observed for each child, making it possible that the child's behavior on the day of observation was atypical. It may, however, be assumed that for the majority of the children, the play behavior observed did accurately reflect the child's social play experiences.

There have been debates over the assumption that pre-tax family income is a reliable measure of SES. Some people believe that SES encompasses much more than just income (McLoyd, 1998). A person could fall into different categories of SES based on the definition used. For this reason, the results of the study may be faulty if the children were not in the appropriate group, and therefore, did not accurately represent the population of children from low and higher SES. However, the government currently assumes that pre-tax family income is the best measure of SES. The last assumption was that family income was accurately reported on the information sheets. There is no way to know if income was accurately reported, but because income was split into two groups (below $36,800 and above $36,800), the chances that income was actually within these ranges increased.

Limitations of the Study

As a result of the design of the study, there are limitations that need to be considered. One theoretical limitation of the study is how social play was defined and measured. There are many different definitions of social play. Depending on the definition used, different results could be found. There is also the argument that social play cannot be separated from cognitive aspects of play and to do so results in incomplete data.

This study also had several limitations related to the methodology that threatened the internal validity of the study. First, there were limitations concerning the recruitment of participants. The time frame of the study and the resources of the researcher did not allow for comprehensive recruitment. It did not allow the researcher to recruit participants outside of the Central New York area, nor did it allow for multiple contacts to be made with the children's parents in an effort to recruit more children into the study. Therefore, there was a limited sample size of only 25 participants, with only 8 of those participants being from low SES.

An additional limitation of the study was that the researcher was unable to recruit children who had been in their respective programs for only a short period of time. It was impossible to control the influence that children's time in preschool programs had on the results of the study.

Another threat to the internal validity of the study is the measures that were used. The Social Play Rating Scale (SPRS) was used to measure social play, and was a combination of three theorists' scales. Combining the three measures may not have accurately reflected the child's social play. This limitation was minimized by

establishing interrater reliability of the SPRS and by using instruments that had been determined to be reliable and valid as individual instruments. One more limitation of the methodology was that the use of only a 20 minute sample for data collection may have limited the validity of the results, especially because the sample size was small.

There are several factors that affected the external validity of the study. First, due to the limited sample size, the study cannot be generalized to the entire population of children who are from low SES. In addition, even though the children were observed in their natural environments, the researcher was present, which could have affected the results. This limitation was minimized by the researcher observing in the programs prior to data collection. Another threat to the external validity of the study was that the return rate was significantly lower than was originally expected, with only 22% (n = 25, out of 112) of the consent forms returned. In addition, the return rate for the two programs where the majority of the children from low SES were recruited was lower than the return rate for the other two programs. For instance, Head Start had a return rate of 15% (n = 6, out of 40) and the Drop In Children's Center had a return rate of 10% (n = 3, out of 30). On the other hand, Ithaca Community Childcare Center had a return rate of 38% (n = 14, out of 37) and Even Start had a return rate of 40% (n = 2, out of 5). The low return rate and the difference in return rates between the programs threatens the validity of the study because it is possible that the children whose parents returned the consent forms may not be representative of the population as a whole. Finally, the researcher collected the data, which could have potentially skewed the results. This was minimized by establishing interrater reliability of the SPRS.

It is possible that the limitations discussed above could have affected the reliability and validity of the results. However, the results are still beneficial in contributing to the understanding of the relationship between SES and social play. In addition, the results lay the ground work for further research on the topic.

Chapter 6: Summary, Conclusions, and Recommendations

Review of Study

In summary, literature has shown that social play is thought to be a major influence on the development of a child's social competence. These peer interactions occur primarily within the context of play, specifically social play. Social competence has also been shown to be related to SES, with children of low SES often having fewer and poorer relationships with their peers than children of higher SES. However, the studies comparing the social play of children from different SES have yielded mixed results. Therefore, the purpose of this study was to examine the difference in social play between preschool-aged children of low and higher SES.

Twenty-five participants were involved in this study (10 females, 15 males), with 8 children in the low SES group (pre-tax family income of $36,800 or less per year), and 17 children in the higher SES group (pre-tax family income greater than $36,800 a year). The participants were recruited from preschool programs in the Central New York area. The participants were observed for 20 minutes each during free play at school. Every 30 seconds the social play behavior exhibited by the participant for that time interval was recorded using a researcher designed Social Play Rating Scale (SPRS). In instances where the participant engaged in more than one play behavior for a given time interval, the most interactive play behavior was recorded.

Using SPSS, independent *t* tests were run to determine if there was a difference in the average percent of time engaged in *interactive* (simple social play, associative play, complementary and reciprocal social play, and cooperative play), *noninteractive* (unoccupied, onlooker, solitary, and parallel play), and *other interactive behaviors* (social

conversation, argue, and rough-and-tumble play) between the two groups. The results showed that there was not a significant difference between the two groups for any of the social play categories. Other studies conducted on social play between children of differing SES have found similar results. Those studies that did find differences in the social play of children of low and higher SES focused solely on sociodramatic play, which encompasses only a small part of social play.

The results of the present study are significant because they demonstrate the importance quality early childhood programs have in placing all children, regardless of SES, on an equal playing field in regards to social play. In addition, the findings provide support for programs that have trained staff, access to materials and resources, and children from varying SES levels. The results also demonstrate the potential plasticity of social play because it is possible that the children from low SES had lower social play skills as compared to their peers of higher SES when they entered school, but after spending time with their peers, the differences in social play were mitigated. This hypothesis is supported in a study by Roopnarine et al.(1992) that found that children whose social interaction was initially not as sophisticated as their peers' were eventually able to match their peers' social interaction after participation in preschool programs.

The results of the study did show a difference in social play based on gender. Independent *t* tests were run to compare the mean intervals of each of the social play categories between males and females. A significant difference was found between mean intervals of *total noninteractive behaviors* with females displaying more noninteractive behaviors than males. A significant difference was also found in the category of onlooker behavior with males participating in more onlooker behavior than females. In

addition, the categories of *total interactive play behaviors* and cooperative play were approaching significance with males demonstrating more of those behaviors than females. Other studies have found similar results suggesting that boys' play is more interactive than girls' play. Finally, the results of the study did not show any significant differences in the social play of the children based on program.

Further Research

Improving Methodology

The results of this study provide a basis for further research to be conducted on the topic of social play and SES. A major direction for future research would be trying to improve the controls of the study in order to minimize the influence of confounding variables on the results. For one, in the present study each child was only observed for 20 minutes of free play time. Conducting a similar study that observed children for a longer period of time may yield a more accurate description of the children's social play. In addition, using children that were all from the same preschool would help to limit additional variables that could influence the results. Another way to limit the influence of confounding variables would be if the participants had just entered the preschool program, thus minimizing the influence of the program on social play.

Another limitation of the study was that all of the programs served children of varying SES. Research comparing the play of children of low SES who attended preschools with children of varying SES to children who attend preschools with children solely of low SES is needed because that would eliminate the potential variable of children of differing SES influencing each other.

Improving the Measures Used

This study measured social play using the SPRS, a combination of Howes', Ladd's, and Parten's play categories. Interrater reliability was conducted for this study, but the reliability and validity of the SPRS needs to be further examined. In addition, in the present study, SES was measured by pre-tax family income. However, further research needs to be conducted to determine if income is the most accurate measure of SES.

Research on the Theoretical Constructs

There is also the need for further research that deals with the theoretical constructs of social play and social competence. There is consensus on which of the social play categories are interactive and which are noninteractive. However, research needs to be conducted that ranks the categories on a scale from least to most interactive social play behaviors. Ranking the categories would then allow for a more detailed analysis of social play. In addition, it would be helpful to ascertain whether in such a ranking, higher rankings reflect increased social competence.

This study also provides the basis for further research examining exactly which social skills develop through social play, and other means through which a child develops social skills. Another important area that needs further research is on what relationship, if any, exists between social play and social competence. An additional variable that needs to be studied further is the affect of peer interaction on social play. Peer interactions have been shown to influence social skills, but no studies have examined the relationship between peer interactions and social play.

Research also needs to be conducted on the effect that setting has on social play, considering such factors as variance in caregiver expertise, play materials or resources, access to different kinds of peer interactions, philosophy of the program, and amount of time spent in the program.

Finally, there is some controversy over whether social play can be studied independently of other types of play, specifically cognitive play. It would be beneficial to conduct a similar study using the SPRS in conjunction with the cognitive play categories to determine if any differences in play were found between the two groups.

Overall, the findings of this study that there were no significant differences in the social play between the children of differing SES provide a basis for a more careful examination of what other factors may influence the social play and social competence of children.

Table 1

Demographic Information for Participants

	Low SES			Middle/High SES				
Category	*n*	*M*	*SD*	*n*	*M*	*SD*	*t*	*p*
Gender[a]	8	01.75	00.46	17	01.53	00.51	1.030	.314
Age (months)	8	46.25	08.91	17	48.41	07.96	-0.610	.548
Months Attending Program	8	11.88	11.53	16	24.75	15.52	-2.069	.050*
Months Attending Other Programs	8	02.25	04.46	16	03.63	05.46	-0.615	.545
Male Siblings	8	00.75	00.89	16	00.69	00.48	0.226	.823
Female Siblings	8	00.25	00.46	16	00.38	00.72	-0.445	.661
Adults in Household	8	01.75	00.46	16	02.06	00.25	-2.168	.041*
Years Mother Education[b]	3	11.67	01.53	14	17.29	03.50	-2.675	.017*
Years Father Education[b]	5	15.20	05.76	16	17.56	03.35	-1.159	.261

[a]Gender was coded with 1 being female and 2 being male. [b]12= high school diploma or equivalent.

*Indicates that the results of the independent *t* test were significant at the .05 level

Table 2

Mean Intervals of Total Social Play Categories with Standard Deviations and Tests of Significance

	Low SES (n = 8)		Middle/High SES (n = 17)			
Category	*M*	*SD*	*M*	*SD*	*t*	*p*
Interactive Play Behaviors	16.50	12.97	16.00	10.90	0.101	.921
Other Interactive Behaviors	00.50	01.07	02.12	02.39	-1.812	.083
Total Interactive Behaviors	17.00	12.66	18.12	11.36	-0.221	.827
Noninteractive Behaviors	17.25	12.46	16.94	11.85	0.060	.953
Other Behaviors	02.88	04.42	01.71	01.40	1.008	.324

Note. Interactive play behaviors include simple social play, associative play, complementary and reciprocal social play, and cooperative play. Other interactive behaviors include social conversation, argue, and rough-and-tumble play. Total interactive behaviors are the combination of interactive play behaviors and other interactive behaviors. Noninteractive behaviors include unoccupied, onlooker, solitary, and parallel play. Other behaviors include behaviors that are not defined by the above categories, such as when child is talking to the teacher.

* Indicates that the results of the independent *t* test were significant at the .05 level

Table 3

Mean Intervals of Individual Social Play Categories with Standard Deviations and Tests of Significance

	Low SES ($n = 8$)		Middle/High SES ($n = 17$)			
Category	*M*	*SD*	*M*	*SD*	*t*	*p*
Unoccupied Behavior	01.63	03.81	00.12	00.33	1.656	.111
Onlooker Behavior	02.63	03.50	02.35	02.34	0.231	.819
Solitary Play	07.88	09.49	10.71	12.04	-0.583	.566
Parallel Play	06.13	05.22	06.00	09.03	0.036	.971
Parallel Play with Mutual Regard	00.38	00.74	01.00	02.65	-0.649	.522
Simple Social Play	05.13	08.61	04.12	05.40	0.359	.723
Associative Play	01.88	02.70	02.35	05.00	-0.252	.803
Complementary and Reciprocal Social Play	07.43	08.72	04.59	05.22	0.993	.331
Cooperative Play	03.00	04.87	04.94	10.02	-0.516	.611
Social Conversation	00.13	00.35	01.47	02.00	-1.865	.075
Rough and Tumble Play	00.00	00.00	00.29	01.21	-0.678	.504

Note. Social play categories taken from the Social Play Rating Scale (see Appendix A).

* Indicates that the results of the independent *t* test were significant at the .05 level

Table 4

Gender Differences between Intervals of Social Play Categories with Standard Deviations and Tests of Significance

	Female (n = 10)		Male (n = 15)			
Category	*M*	*SD*	*M*	*SD*	*t*	*p*
Interactive Play Behaviors	11.60	10.35	19.20	11.24	-1.708	.101
Total Interactive Behaviors	13.50	11.05	20.60	11.31	-1.551	.134
Noninteractive Behaviors	23.30	10.20	12.87	11.16	2.367	.027*
Unoccupied Behavior	01.20	03.46	00.20	00.41	1.120	.274
Onlooker Behavior	01.00	01.05	03.40	03.04	-2.386	.026*
Solitary Play	11.40	14.27	08.73	08.94	0.577	.570
Parallel Play	09.50	10.72	03.73	04.32	1.882	.073
Parallel Play with Mutual Regard	00.50	00.71	01.00	02.83	-0.544	.592
Simple Social Play	06.20	08.53	03.27	04.50	1.125	.272
Associative Play	01.30	03.13	02.80	05.00	-0.841	.409
Cooperative Play	00.40	01.26	06.93	10.43	-1.957	.063
Social Conversation	01.60	02.32	00.67	01.23	1.313	.202

Note. Social play categories taken from the Social Play Rating Scale (see Appendix A).

* Indicates that the results of the independent *t* test were significant at the .05 level

Table 5

Mean Intervals of Total Social Play Categories among Programs with Standard Deviations

	Even Start ($n = 2$)		Head Start ($n = 6$)		ICCC ($n = 14$)		Drop In ($n = 3$)	
Category	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Interactive Play Behaviors	03.50	04.95	15.50	12.39	17.71	11.67	18.67	08.39
Other Interactive Behaviors	00.00	00.00	01.00	01.10	02.00	02.39	02.00	03.46
Total Interactive Behaviors	03.50	04.95	16.50	12.00	19.71	11.56	20.67	10.41
Noninteractive Behaviors	34.00	05.66	16.67	10.25	14.71	11.75	17.33	12.86

Note. Interactive play behaviors include simple social play, associative play, complementary and reciprocal social play, and cooperative play. Other interactive behaviors include social conversation, argue, and rough-and-tumble play. Total interactive behaviors are the combination of interactive play behaviors and other interactive behaviors. Noninteractive behaviors include unoccupied, onlooker, solitary, and parallel play. Other behaviors include behaviors that are not defined by the above categories, such as when child is talking to the teacher.

Appendix A

Social Play Rating Scale (SPRS)

Behavior category	Description
Noninteractive	
Unoccupied	Child is alone and appears to be doing nothing (i.e. staring off into space)
Onlooker	Child is alone, watching others play (i.e. observing peers)
Solitary Play	Child is playing alone (i.e. playing with dolls)
Parallel Play	Child plays with similar activities as other children, but does not interact with them (i.e. playing with a puzzle while other children are playing with a different puzzle)
Transitional Category	
Parallel Play with Mutual Regard	Same as parallel play except child engages in eye contact with and is aware of others (i.e. child is playing with blocks, but makes eye contact with other children who are also playing with blocks)
Interactive	
Simple Social Play	Child is engaged in similar activity as others and engages socially with other children by smiling, vocalizing, offering or receiving an object, or any other social behavior (i.e. two children are coloring and one child asks the other child for a marker)
Associative Play	Child plays with other children without a common goal in mind and no social bid (i.e. rolling a ball back and forth)
Complementary and Reciprocal Social Play	Same as associative play except children engage in social bids (i.e. two children painting a picture together and one child tells the other child to paint the grass green)

Cooperative Play	Children are working towards a common goal and take on specific roles (i.e. playing formal games, acting out roles)
Other Interactive Behaviors	
Social Conversation	Child talks with others, but is not engaging in an activity (i.e. joking, asking questions)
Argue	Child is engaged in hostile talk with others (i.e. insults, threats)
Rough-and-Tumble	Child is engaged in physical activity with others (i.e. pushing, fighting)
Other	Child is engaged in behaviors that are not defined by the above categories (i.e. talking to teacher, crying alone)

Note: Summarized from:

"Peer Play Scale as an Index of Complexity of Peer Interaction" by C. Howes, 1980, *Developmental Psychology, 16*, p.371. Copyright 1980 by the American Psychological Association.

"Social Networks of Popular, Average, and Rejected Children in School Settings" by G.W. Ladd, 1983, *Merrill-Palmer Quarterly, 29*, p.291. Copyright 1983 by Wayne State University Press, Detroit.

Appendix B
Observation Data Sheet

Date Observed:

Time	UN	ON	SP	PP	PPMR	SSP	AP	CRSP	CP	SC	AR	RT	Other	Comments
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
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25														
26														
27														
28														
29														
30														
Subtotal1														

Key to Observation Data Sheet

Abbreviation	Behavior Category
UN	Unoccupied
ON	Onlooker
SP	Solitary Play
PP	Parallel Play
PPMR	Parallel Play with Mutual Regard
SSP	Simple Social Play
AP	Associative Play
CRSP	Complementary and Reciprocal Social Play
CP	Cooperative Play
SC	Social Conversation
AR	Argue
RT	Rough-and-Tumble

Appendix C
Information Sheet

Child's name (first name only): _____
Date of birth: _____
Name of early childhood program: _____

Please answer the following questions. Feel free to omit any questions you do not feel comfortable answering. All information will remain confidential.

Number of months/years attending present program _____

Has child attended another preschool or playgroup in the past? _____ yes _____ no
If yes, how many years did child attend the other program? _____

Does child have any special health or educational needs? _____ yes _____ no
If yes, please explain:

_____

Is your child able to understand and speak English at an age-appropriate level? ____ yes ____ no
If no, please explain:

_____

How many brothers and sisters does child have? _____
Please list: Male or Female Age
Sibling 1: _____
Sibling 2: _____
Sibling 3: _____
Sibling 4: _____
Sibling 5: _____

How many adults live in household? _____
Please list: Male or Female Relationship to child Occupation Number of years of Education
Person 1: _____
Person 2: _____
Person 3: _____
Person 4: _____

How would you describe the area in which you live?
____ Rural
____ Small Town
____ Small City
____ Other, please describe _____

Family Income-income before taxes (check range that applies):
____ Less than $10,000
____ $10,000 to $14,999
____ $15,000 to $24,999
____ $25,000 to $34,999
____ $35,000 to $49,999
____ $50,000 to $74,999
____ $75,000 and up

Appendix D
Human Subjects Acceptance Letter

ITHACA

OFFICE OF THE PROVOST AND VICE PRESIDENT
FOR ACADEMIC AFFAIRS

November 24, 2003

Amber M. Matteson
Department of Occupational Therapy
School of Health Sciences and Human Performance
Ithaca College

Re: **Social Play in Early Childhood**

Thank you for responding to the stipulations made by the All-College Review Board for Human Subjects Research. You are authorized to begin your project at any time. This approval will remain in effect for a period of one year from the date of authorization.

After you have finished the project, please complete the enclosed Notice-of-Completion Form and return it to my office for our files.

Best wishes on a successful study.

Sincerely,

Garry L. Brodhead, Associate Provost
All-College Review Board for Human Subjects Research

/lw

Enclosure

c: Carole Dennis, Faculty Advisor

REF: HSR 0903-10

Ithaca College / 350 Job Hall / Ithaca, New York 14850-7012
607-274-3113 / Fax: 607-274-3064 / www.ithaca.edu

Appendix E
Recruitment Letter for Facility/Program Directors

November 2003

Dear Program Director:

I am a graduate student at Ithaca College who is conducting research for my Masters Thesis in Occupational Therapy. The purpose of my study is to look at the relationship between social play and a variety of demographic variables in typically developing children ages 2 to 5 years old. My study involves videotaping each child participating in the study for 20 minutes during free playtime at school. In instances where videotaping is not possible, I will observe the children for 20 minutes during free play time.

Once I have received the letter of support attached below, I will send information about the study to the program instructors, and will contact them to discuss my study with them. Those instructors who agree to allow me to observe children in their classrooms will be asked to complete a very brief questionnaire about their program. They will also be asked to send parents of the children in their classroom a packet including a description of the study, a short demographic form, an informed consent form, and a stamped return envelope. When parents sign and return the consent forms to me, I will contact the classroom teachers to set up a time to observe and videotape (if allowed by parents and the program) the free play of those children whose parents have consented to their participation in the study. The identity of the children and the programs in which they are enrolled will remain confidential.

If you are supportive of the concept of my research please sign the letter of support below, and mail it to me in the stamped envelope provided. I am enclosing a copy of the proposal approved by the Review Board for Human Subjects Research at Ithaca College. When the study is complete, I would be pleased to share the results with you and anyone else you think might be interested. If you have any questions, please feel free to contact me at (607) 275-8396 or amattes1@ithaca.edu, or my research advisor, Carole Dennis at (607) 274-1057 or cdennis@ithaca.edu. Thank you for your time and assistance. Your help is greatly appreciated.

Sincerely,

Amber Matteson
Occupational Therapy Department
Ithaca College

My signature on the line below indicates my support for the research study described above:

Signature	Title
Name of Program	Date

Appendix F
Recruitment Letter for Teachers

November 2003

Dear Teacher:

I am conducting a study for my Master's Thesis in Occupational Therapy at Ithaca College. The purpose of my research is to examine the social play of children between 2 and 5 years of age in relation to a number of family demographic variables. Twenty minutes of the children's free play will be observed within the context of their preschool environments.

Enclosed with this letter you will find a brief Questionnaire on the Program. If you agree to allow me to conduct research in your classroom, please complete the Questionnaire on the Program, and sign this letter in the space below. Also included are packets to be sent home to parents with their children. These packets include a description of the study, an information sheet, and an informed consent form. Parents who allow their child to participate in this study will complete the forms and return them to you. I will contact you with a time to come in and collect the consent forms and the Questionnaire on the Program. After I have received the consent forms I will contact you to set up a time for me to come in and observe the children.

If you have any questions please feel free to contact me at (607) 275-8396 or amattes1@ithaca.edu. Thank you for your time and assistance.

Sincerely,

Amber Matteson
Occupational Therapy Department
Ithaca College

My signature on the line below indicates that I will allow the researcher to collect data in my classroom for the study described above.

_____ _____

Signature Date

Appendix G
Teacher Questionnaire on Program

Name of Program:_____
Please answer the following questions

1). How many children are enrolled in the program?

_____

2). What is the teacher to child ratio?

_____

3). Briefly describe the purpose of the program

_____
_____
_____

4). How many square feet is the facility?

_____

5). Please describe how the room is organized in terms of what kinds of toys are available in each area (ex. arts and crafts section, tabletop activities, play kitchen, etc.).

_____
_____
_____
_____
_____

6). Please list any additional information that you feel would be important for the researcher to be aware of.

_____
_____
_____
_____

Appendix H
Recruitment Letter for Parents

November 2003

Dear Parent or Guardian:

I am an occupational therapy graduate student at Ithaca College. Occupational therapists work with children to improve self-care, fine motor, and play skills. I am doing a research study on play in young children. I am writing to ask your permission to observe your child for the study. In my study I will watch children between the ages of 2 to 5 years old during playtime at school. The director and teachers at your child's program have agreed that I may work in their classes to complete my study.

I have given you a consent form that describes the study and asks for your permission to observe your child during play time at school. You should also have been given an information sheet that will give me some background information on your child. The name of your child and all of the information collected that might identify your child will not be used in the study, and only my advisor and I will see the information. When my study is finished in March 2004, I will send you a letter about the general findings of my study. Your child will also be given a certificate for participating in the study.

If you agree to have your child be in the study, please sign the consent form and fill out the information sheet. Return both of them to your child's teacher. Please keep the one consent form that says "Parent's Copy" for your records. If you have any questions feel free to call me at (607) 275-8396 or e-mail me at amattes1@ithaca.edu. Thank you very much for your time.

Sincerely,

Amber Matteson
Occupational Therapy Department
Ithaca College

Appendix I

Informed Consent Form

Social Play in Early Childhood

1. Purpose of the Study: This study involves observing the quality of social play and its relationship to a variety of demographic variables in typically developing preschool-age children during free playtime at school.

2. Benefits of the Study: Very little research has been conducted on the social play of young children. The results of this study will be useful to individuals interested in studying play, and may lead to the development of programs by educators and occupational therapists to promote social play in preschool-age children.

3. What You Will Be Asked to Do: Sign the informed consent form and fill out the demographics form, and mail both of them to me in the stamped envelope provided.

4. What Your Child Will Be Asked to Do: If your child participates in the study, he/she will be observed and/or videotaped during free playtime at school for a total of 20 minutes. Your child will not be made aware of the intent of the observer in order to maintain a natural environment. If you do not wish for your child to be videotaped, but still want him or her to participate in the study, sign the line below that gives permission for your child to be observed, but not videotaped.

5. Risks: There is a risk of possible embarrassment for the child if he/she becomes aware that the observer is watching him/her. This will be minimized because the child will not be aware of the observer's intent and the observer will be viewing more than one child. Also, the observer and the video camera will be situated so that they are as unobtrusive as possible, so as not to disturb the natural preschool environment.

6. If You Would Like More Information about the Study: If you would like more information about this study or if you have any questions at any time, please feel free to contact us: Amber Matteson (607) 275-8396, e-mail-amattes1@ithaca.edu; Carole Dennis 607-274-1057, e-mail-cdennis@ithaca.edu.

7. Withdrawal from the Study: You or your child can withdraw from the study at anytime. If you would like your child to withdraw from the study at any time, please feel free to contact me, Amber Matteson, at (607) 275-8396 or e-mail me at amattes1@ithaca.edu. Deciding not to participate or withdrawing at anytime will not affect your child's status at preschool.

Parent's Initials_____

8. How the Data will be Maintained in Confidence: Your child's identity will be kept confidential. Your child's full name will not be used on any of the forms of the study and your child's name will not be referred to in the study. In addition, the researcher will keep all data gathered confidential and only grouped data will be released.

I have read the above and I understand its contents. I agree to allow my child to participate in the study. I acknowledge that I am 18 years of age or older.

Print Name	Child's Name
Signature	Date

The videotapes of your child will be stored at Ithaca College in a locked file where only the researchers will have access to them. The tapes may be used in future studies of play in young children, but they will not be shown to the public at any time. They will be destroyed five years from the date of this study.

I give my consent to allow my child to be videotaped for this study.

Signature	Date

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