Roles and Behaviors of Preschool Children
In Literacy Themed Symbolic Play

by

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ABSTRACT

The purpose of this study was to identify and examine the roles and behaviors demonstrated by three, four and five year old children who participated in literacy themed symbolic play. A naturalistic, observational study was used to observe the literacy uses, behaviors and role types of the 16 preschool children after the addition of literacy materials to the dramatic play centre. The study found that the children did exhibit specific behaviors and roles identified in research describing older children involved in this emergent literacy strategy. The first category analyzed was social context (i.e., solitary play, parallel play, paired play and group play). The most frequent social context demonstrated was parallel play, followed by paired play. The second level of analysis examined how children use literacy or literacy uses (i.e., importance of activity, models, economic and business transactions, memory, presentation of information, identity confirmation, self expression, personal relationship, source of information, oral message). There were no incidents of memory support as a literacy use in any age group. The most frequent literacy use demonstrated across all age groups was source of information. The majority of five year old females participated in this literacy use, followed by four year old males and three year old males. The third category of analysis was literacy behavior which included: environmental reading , functional reading and writing, recreational reading and writing, academic reading and writing, read aloud, browsing and reading extension. The researcher added two behaviors: oral discussion and physical manipulation for a total of 12. Children across all age groups demonstrated all the literacy behaviors except the three year olds who did not demonstrate academic reading or writing. The most frequent literacy behavior was physical manipulation for both genders in all age groups except five year old females who demonstrated oral discussion as the most frequent behavior. Three and four year old males participated in more literacy behaviors than females. The five year old females participated in more literacy behavior than the five year old males. The final category of analysis was role type (i.e., model, inviter, coach, director, player, negotiator, affirmer, contradictor, facilitator, regulator and experimenter). Blocker was one role type added by the researcher. The children participated in all 12 role types; the most frequent role type was player, followed by director. More three and four year old males participated in assuming role types than females and the five year old females assumed roles more often than the five year old males. The findings of this study suggest that preschool children do participate and demonstrate specific literacy uses in behaviors and roles when involved in literacy themed symbolic play. The inclusion of literacy materials in the dramatic play centre may be considered an effective and beneficial emergent literacy strategy.

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DEDICATION

This thesis is dedicated to my family;

to my husband, Maurizio Segato,

and my parents, Diane and Garry Hayes.

Chapter 1

Introduction

Educators, parents and researchers strive to make the process of learning about literacy and becoming literate a positive, successful one for young children. Empowering children to be successful with literacy involves providing an environment which enables the young child to participate in developmentally appropriate practices (Bredekamp, 1987). Schickendanz (1986) writes "literacy learning proceeds naturally if the environment supports young children" (p. 7). Part of a supportive environment includes providing various opportunities and strategies, one of which is the interfacing of symbolic play and literacy (Neuman & Roskos, 1990). Although play has been part of early childhood education since Froebel (Rogers & Sawyer, 1988), symbolic play has more recently been recognized as one effective strategy for learning about literacy (Pellegrini, 1985; Roskos, 1988; Teale & Sulzby, 1986). The roles and behaviors demonstrated by older children (i.e., elementary school aged children), when involved in literacy themed play, have been identified (Bessell-Browne, 1985; Neuman & Roskos, 1993; Stone & Christie, 1996). When a child is involved in symbolic play, he or she is often demonstrating a role. This play experience, and thus role assumption, enables a child to utilize literacy skills and knowledge. These roles are important because they enable the child to explore, learn and practice various literacy skills such as reading and writing. One emergent literacy strategy that is being recognized as significant is the use of symbolic play and the integration of literacy. This involvement of the young child in symbolic play and literacy fosters literacy development through peer interaction and involvement with literacy materials. The purpose of this study is to examine and identify key literacy behaviors and roles assumed by three to five year old children involved in literacy themed symbolic play. In this study, **literacy themed symbolic play** is defined as a symbolic play episode which includes one or more forms of language. The existing studies focus primarily on kindergarten or elementary school aged children or on the roles the adults assume (e.g., Neuman & Roskos, 1993; Rowe, 1989; Stone & Christie, 1985; Vukelich, 1993). Three key areas of research relevant to literacy themed symbolic play are (a) play, (b) emergent literacy, and (c) peer interaction. Each of these areas are important elements of the literacy themed symbolic play episodes and therefore a background of each area will be briefly discussed.

Play

Often termed "child's work," play has been examined and studied in depth and has become recognized as a common and significant part of early childhood curriculum. Play both reflects and affects the development of the child. **Play** will be defined in this study as a behavior exhibited by children who demonstrate the factors identified by Rubin, Fein and Vandenberg (1983). Levy (1977) suggests that play unifies the mind, body and spirit. Instead of attempting to define play, Rubin, Fein and Vandenberg (1983) have identified six factors that are inherent in the disposition of play itself. Play (a) is intrinsically motivated, (b) is free of externally imposed rules, (c) is carried out as if the activity were real, (d) is dominated by the players, (e) focuses on process rather than product, and (f) requires active involvement of the player. Although one universally accepted definition of play is difficult to agree upon, classification systems have been developed (Pellegrini, 1985; Piaget, 1962; Smilansky, 1968).

One of the first research models which examined and categorized play was developed by Parten (1932). Parten investigated the relationship between age and social play displayed by 42 children, aged two to four years and the six identified categories are still widely accepted and recognized. These categories include:

1. Unoccupied Play: A child observes others play, but does not engage in or enter the play;
2. Onlooker Play: A child observes and questions others on the outskirts of the play, but does not join in. Often, the child may re-enact what was observed at a later time, independently;
3. Solitary Play: A child independently utilizes materials. There is no cooperation or interaction with others;
4. Parallel Play: A child interacts with the environment or materials beside a peer. Again, there is no interaction with another person;
5. Associative Play: Children participate in a common activity. There may be sharing of toys or ideas, but there are no clear roles or specific goals;
6. Cooperative Play: Children interact cooperatively with group membership and taking on leadership roles in the play scenario becomes a focus for the children.

Each type of play is somewhat more developed than the previous stage, cooperative play being the most "sophisticated." Children who are older can engage in any one of these play categories at any given time. Younger children slowly add each type of play behavior as they develop. Children may participate in all of these types as

they get older; for example, a six year old may engage in solitary play and shortly after join peers to engage in cooperative play. Some of these will be used in this research to determine **social context** categories. In this study, social context will be defined as the type of play or literacy activity a child engages in.

Another widely recognized classification system is that of Piaget (1962). Piaget's work on how children's play behaviors reflect developmental abilities is classified into four distinct categories: practice or sensory motor play, symbolic play, constructive play and games with rules. **Symbolic play** is viewed by Piaget as unique in that it is the beginning of representational thought. The child begins with the substitution of objects and actions. For example, a child may pretend to stir a spoon in a bowl and add "imaginary" food to the bowl as he or she enacts a kitchen scenario in the dramatic play centre.

Both Piaget and Parten's models of play are often used as the basis for further research and subsequent classification systems or scales. One such scale is that of Smilansky (1968). Smilansky adapting Piaget's work created a social framework. Practice play was labeled functional play because it was considered repetitive in nature and Smilansky added constructive play. Constructive play includes manipulation of objects with a child creating or building materials that remain after the child has finished playing.

Rubin, Maioni and Hornung (1976) have devised a model that combines Smilansky's categories of cognitive play and Parten's social categories. Smilansky's four categories: functional play, constructive play, symbolic play and games with rules play are combined by Rubin with Parten's categories, including all of the categories except the cooperative and associative play categories which are melded to create one category called "group play." This scale is unique in that it addresses both play and other socially interactive behaviors of children aged four to seven. These models can be helpful in observing the play and literacy behaviors of a young child involved in the literary themed symbolic play episode. Parten's categories of social context are used in the analysis of data for this study.

Symbolic Play

The diverse classification systems of play provide researchers and educators with labels and frameworks with which to observe play and provide an environment that supports and enables play. One type of play that has been identified as having a unique

and significant role in affecting child's development is symbolic play (Piaget, 1962; Vygotsky, 1978).

Symbolic play is defined as the child's ability to independently and actively engage in taking on a role and the transforming or substitution of concepts, objects and situations in a non-literal way (Fein, 1985; Rubin, Fein & Vandenberg, 1983). As a child engages in symbolic play, his or her physical, emotional, social and cognitive needs and abilities are accommodated. Children use symbols to represent concepts, objects and situations (Nicholich, 1977). This ability to symbolically represent has implications for learning and literacy. Children engaging in symbolic play are using symbols to represent thoughts and concepts and thus are laying the foundation for future use of increasingly difficult, abstract representations used in literacy. A child who pretends to be a waitress and writes down a food order on a pad of paper is exploring how literacy is utilized meaningfully in day to day life and that writing and reading are used in different ways for different reasons. Sometimes a large sign is used to announce a sale at a store and sometimes recording food orders are needed to run a restaurant. Children observe, interact and experience for themselves the hows, the whys and the wheres of literacy through symbolic representation. These children are assuming a role. Smilansky (1990) defines **role** as one where a child imitates or produces actions, gestures, movement and language when involved in pretense with or without peers. A child who is involved in utilizing symbolic representation is developing skills and abilities that will later enable him or her to be skilled and knowledgeable in other representational systems, specifically reading and writing (Neuman & Roskos, 1990). Young children who have the opportunity to participate in symbolic play and, more specifically literacy themed symbolic play, are involved in a strategy which is being recognized as an important part of the literacy learning process.

Emergent Literacy

To function with success and survive in today's society, children must become literate. Ollila and Mayfield (1992) define **emerging literacy** as the "natural, gradual development of a young child's listening, speaking, reading and writing abilities" (p.1). The term **emergent**, meaning development rather than stasis, was first used by Mead (1934). In the past, literacy was viewed as an adult activity and children were seen as "ready" to be instructed at a mental age of six; the assumption being that literacy didn't exist before this age (Walker, 1992). Children were either considered "ready" or "not ready" to acquire literacy. Readiness was typically viewed in the literature as a set of

isolated skills (Harste, Woodward & Burke, 1984). Children were not considered literate in any form before formal instruction began. Emergent literacy research has burgeoned in the last three decades, creating a diverse and rich body of knowledge regarding the young child's literacy development (Clay, 1975; Ferreiro & Teberosky, 1982; Teale & Sulzby, 1986). Researchers and educators now view literacy as a complex sociopyscholinguistic activity that children actively engage in rather than passively observe. Researchers and educators view literacy as a process where children utilize social, cognitive and verbal skills (Teale & Sulzby, 1986). This shift in perspective has brought about research with a common theme; in literacy learning, the child is not an observer, rather he or she is an active participant. Children are learning about literacy from birth through personal exploration, interactions and observations with members of the community (Teale & Sulzby, 1986).

Learning about literacy does not involve simple, lock step sets of skills, but is a social process with active involvement with diverse experiences in meaningful contexts . Morrow and Rand (1993) suggest that emergent literacy learning occurs:

1. In meaningful and functional contexts;
2. Through social interactions in varied contexts;
3. Through active involvement with literacy experiences and materials;
4. Through the integration of reading, writing, speaking and listening in all context areas. (p. 4)

These factors, combined with the belief that children are active, capable participants in the learning and literacy environment, provide the foundation for creating appropriate curriculum and more specifically, learning experiences and strategies. Bredekamp and Rosengrant (1992) suggest an environment that includes a concrete play oriented focus with authentic situations and materials, best enables children to explore, investigate and learn about their world. Play is a critical component of the emergent literacy curriculum in the early childhood settings (International Reading Association, 1989). The task of becoming literate must include many opportunities for the child to engage in various learning opportunities. Play is one such experience that can provide many contexts and learning opportunities for the young child. In this study, the use of the term **literacy** refers to young children's emergent literacy.

Play As a Literacy Strategy

Play offers both the opportunity and the means to explore, understand and develop skills. This forum for learning about literacy is more specifically enhanced by

symbolic play (Vukelich, 1990). Symbolic play is powerful and developmentally useful in that it enables the child to be an active and capable player in various scenarios and themes found in the everyday, real world. The very nature of play itself sets up an experience for the child that can be successful for several reasons. Play is a safe activity where children can explore, learn and build knowledge skills and attitudes. They can take risks and explore and experiment with literacy. Rogers and Sawyer (1988) state that the play experience is a relaxed, child-based activity where play challenges, yet does not punish for mistakes. Children gain insight into the complexities of literacy with a risk taking attitude (Kontos, 1988). Such conditions also support the risk taking attitude Kontos (1988) deems necessary for children to gain insight into the complexities of literacy. Play provides opportunity for social interaction with peers and capable role models (Teale & Sulzby, 1986). Waring-Chaffee (1994) concludes that children utilize literacy for various purposes, from reaching out to make or confirm social relationships to recreating events to investigate and explore roles and details that literacy demands. The play experience enables the growth of these emerging literacy skills because, in play, the child assimilates other peers' viewpoints or adapts their own perspective. They must share, cooperate, communicate and utilize materials to both learn and express ideas (Rubin & Hayvren, 1981).

When children are engaged in pretend play, they are learning not only about details, but also how these details fit in a larger context. They learn not in isolated or fragmented ways, but in the context of a specific situation (Throne, 1988). For example, when a child plays bank teller, he or she is learning more than if he or she were to practice solely how to correctly form the numeral 0 to 9 on a drill worksheet. The child is utilizing numbers for a purpose, practicing number formation in a meaningful way and observing how writing and reading can be utilized in a social manner with peers. Cochran-Smith (1984) has illustrated that when children were authentically engaged in literacy, they perceived the usefulness and thus internalized and valued the literacy surrounding them. This "playing" with literacy provides not a fractured, but a wholistic learning opportunity for children to investigate literacy itself and develop their emerging skills. Hall (1987) has suggested that play is a part of literacy and contends that many of the research results about play and emergent literacy can be organized into four general themes:

1. Play, as a fundamental cognitive activity, is preparation for more complex, cognitive activities such as emergent literacy.
2. Symbolic behavior in play is related to the understanding of a representational system like written language.

3. Language behavior in play is related to language about literacy.
4. When children are offered play experience with literacy related resources, they participate in literacy activities.

Symbolic play enables interaction and involvement with materials, and more specifically peers. Support of symbolic play is one way to enhance the literacy development of the young child.

Peer Interaction

Peer interaction does have a significant place in the play experience (Vygotsky, 1978). In this study, peer interaction is defined as two children participating in a common or similar event. Peer interactions are a key part of the literacy learning process; children observe, imitate, compare, discuss and share their beliefs, interests and needs with peers who are also participating in literacy (Heath, 1983; Kantor, Miller & Fernie, 1992). The benefits of peer interaction are varied and can include increased cooperation, social skill development, such as turn taking and sharing, and communication skills (Kantor, Miller & Fernie, 1992). Roskos (1988) found that young children, ages four and five, who engage in literacy during symbolic play demonstrate a "literacy stance" or an understanding and attitude about literacy. Roskos indicates children who acted as readers or writers in various play themes were involved in literary routines. These routines enabled numerous opportunities for exploration and utilization of literacy with peers. A second benefit of peer interaction is the ability of a child to learn from social interaction within a community.

Vygotsky identifies the "zone of proximal development," suggesting that a child's learning is increased or enhanced by interaction with more capable peers. A child who writes letters on a pad of paper, pretending to be a doctor, is modeling and demonstrating skills, knowledge and attitude to fellow peers. In response, peers emulate or respond to this, in equal or emerging literate ways. Children are interacting and learning from and with each other. A third benefit for children learning about literacy occurs when they participate in literacy events wither either an adult or capable peer scaffolding and supporting their efforts (Halliday, 1979; Teale & Sulzby 1986).

Holdaway (1979) has identified four processes of social interaction necessary for literacy development to occur. The child first observes an adult or peer involved in a literacy activity. The child then collaborates with peers and practices these literacy behaviors. To conclude the cycle, the child performs the literacy event for or with others. Through interaction in literacy themed symbolic play, the child can actively and independently explore the many facets of literacy with these four processes ever present

in the play episode. This modeling, collaborating and responding to and with peers is part of literacy learning which can be encouraged with play.

Socio-cognitive growth is another benefit of peer interaction. Five and six year old children who attempt to solve problems and express ideas together are children who significantly demonstrate growth - both cognitively and socially (Cannella, 1993). Tudge (1992) has demonstrated that collaboration by peers results in completion of tasks that would not have been possible without peer interaction.

Furthermore, interaction with other children develops various social skills and expertise in social interaction (Cosaro, 1985; Johnson, Christie & Yawkey, 1987). Children, when interacting with peers, experience increased diverse opportunities to learn and develop skills such as negotiation, problem solving, perspective taking, sharing and communication (Kostelnik, Stein, Whiren & Soderman, 1988). Social interaction has been shown to facilitate cognitive learning for children (Rogoff, 1990).

Cognitive growth in the area of literacy, is another benefit. Cook-Gumperz (1986) suggests three key links between social interaction and literacy learning. First, interaction with peers is a context for literacy learning, is a tool in the learning process and is the way in which specific literacy concepts are defined. As children engage in symbolic play, the social interactions are acting as a vehicle to further understanding of literacy. Secondly, the social interaction between children develops the literacy skills, behaviors and attitudes. And thirdly, through play, the child interacts with peers and in doing so must contend with varying perspectives. Rubin and Hayvren (1981) suggest that two significant conditions occur: (a) the child must accept others' perspectives and thus re-evaluate and change his or her perspectives and (b) the child encounters and learns from these diverse perspectives and accommodates this new information with regard to his or her social context or environment.

Although learning through play includes independent types of play such as onlooker or solitary play, peer interaction in symbolic play is one way for children to extend their emerging literacy efforts and abilities.

Rationale For This Study

As educators strive to meet and support the needs of young children in their struggle to make sense of literacy, the use of symbolic play in literacy instruction has been shown to be an effective strategy (Christie, 1990). Although this strategy is utilized, it is not completely understood (Pellegrini & Galda, 1993). Play materials, amount of time needed for play and what constitutes elements of effective settings have

been explored by researchers in some depth in the last two decades (e.g., Field, 1980; Smith & Connolly, 1980; Strickland & Morrow, 1989).

Recent studies have outlined several basic roles children demonstrate in literacy themed symbolic play episodes. Neuman and Roskos (1991a) has illustrated three roles the child assumes in literacy play: coach, negotiator and designator. Rowe (1989) details how a child shifts between author and audience when interacting in the writing center. Neuman and Roskos (1993) have also identified how adults facilitate play by assuming specific roles and that these roles may indeed be modeled by children. Finally, Stone and Christie (1996) suggest that when children collaborate in the dramatic play centre, various roles and behaviors are demonstrated. These studies illustrate simple, rudimentary roles and behaviors that children participate in during literacy themed symbolic play; however, further inquiry is needed to label and identify the specific behaviors and roles young children assume.

The purpose of this study is to identify key literacy behaviors and roles assumed by the preschool child during literacy themed symbolic play. The existing studies focus primarily on kindergarten or elementary school aged children or on the roles the adult assumes (e.g., Neuman & Roskos, 1993; Rowe, 1989; Stone & Christie, 1996; Vukelich, 1993). Therefore, this study will examine preschool (i.e., children three to five years) children's behaviors and roles demonstrated in literacy themed play. The observations take place in a day care setting over a four week period with the inclusion of various literacy props.

Some studies have investigated the relationship between literacy and symbolic play and have utilized research designs that included intervention either by redesigning the setting with equipment and literacy tools, or by the direct adult assistance in the play episodes (e. g., Bessell-Browne, 1985; Neuman & Roskos, 1991 (b); Stone & Christie, 1996). This study will explore the basic roles and behaviors young children assume in utilizing materials added to the existing dramatic play area. The interaction with materials and with peers will be a focus.

A deeper understanding of what roles children use in literacy enriched symbolic play may be beneficial in several ways. In planning curriculum, educators may see the play episodes as beneficial part of the literacy curriculum. When children play, there can be conflict and if breakdowns occur in the play episode, educators who are knowledgeable about what roles and behavior are demonstrated may be able to intervene with increased finesse and effectiveness. Educators can assist peer interaction by becoming role models themselves in a play scenario. By having a more complete understanding of the roles and behaviors of the young child involved in this type of play,

assessment, evaluation and future planning can be made with increased knowledge and awareness. Further understanding may provide educators and other professionals with knowledge about how to facilitate symbolic play as a literacy learning strategy.

Research Questions

The following are the research questions of this study:

1. What specific roles and behaviors are demonstrated by three to five year old children in this study when engaged in literacy themed symbolic play episodes?

2. Do these identified roles and behaviors correspond to the adult and child roles identified by Bessell-Browne (1985), Neuman and Roskos (1993)and Stone and Christie (1996)?

3. What is the frequency and duration of behaviors and roles in literacy themed symbolic play episodes in this study?

This study will examine the literacy themed play behaviors of three to five year old children in an inner city daycare centre. It will also investigate whether the roles and behaviors already identified in the literature apply to preschool age children and if additional roles and behaviors can be identified. A supportive environment which provides opportunities and strategies for the young child to learn about literacy is one that recognizes play as a significant component of the early childhood curriculum. Specifically, symbolic play provides the child with experience in symbolic representation. The integration of literacy into the symbolic play episodes of the young child enables the young child to explore the details of literacy, such as how we use literacy or where we use literacy with symbolic representation. The next chapter is a review of the literature and research related to the study. Methodology and research design are discussed in Chapter 3 and Chapter 4 is a presentation and discussion of results. The conclusion, summary and recommendations comprise Chapter 5.

Chapter 2

Review of the Related Literature

Introduction

This chapter is a review of the related literature and research and demonstrates the growing interest and research in the relationship between symbolic play and emergent literacy. The review indicates that research has primarily dealt with kindergarten and elementary aged school children and illustrates the need for further examination of the literacy play of preschool aged children. Although young children need various opportunities for play and literacy (IRA, 1991), few studies illustrate the specific roles the preschool child assumes in literacy themed symbolic play. This chapter presents a discussion of the implications and results of the review of literature and research related to three areas: (a) symbolic play, (b) the relationship between symbolic play and emergent literacy, and (c) roles and behaviors of literacy themed play.

Symbolic Play

Symbolic play will be discussed in the following section with a focus on definitions and elements that make up symbolic play, the stages and categories of symbolic play and the affect symbolic play has on the young child's development.

Characteristics of Symbolic Play

Symbolic play has various names, including dramatic, pretend, representational, socio-dramatic, role, fantasy, make-believe and imaginative play. Although there are several names for symbolic play, the importance of symbolic play in the life of the young child has been recognized as being significant (Garvey, 1974; Smilansky, 1968; Vygotsky, 1978). Symbolic play is defined as play that involves voluntary role taking with others (Wolfgang, MacKender & Wolfgang, 1981). For example, a child may be

involved in playing with a peer in the dramatic play area of the daycare. In this play episode, the child may utilize a utensil as a microphone when announcing that the grocery store is open. This type of play has been identified as a unique form of play and according to Smilansky (1968), six critical elements or criteria comprise the symbolic play episode: (a) play must be a duration of at least 10 minutes, (b) include peer interaction, (c) include verbal interaction, (d) the child assumes a role, (e) participation of the child in "make believe" with physical artifacts, and (f) various actions and scenarios are included in the play theme. These are the basic elements of the symbolic play context, according to Smilansky.

In addition to the basic elements required in a symbolic play context, there are rigorous and complex demands placed on the child engaged in symbolic play. Smilansky (1990) outlines these dynamic and inherent factors that children must address as they play. The child must focus on one identified theme and thus choose and demonstrate appropriate roles for specific situations. The child must recognize major features and details of themes, characters and scenarios. As this is happening, the child continuously controls and assesses his or her behavior as it is tied in and changing with the play context, play theme and role demands of the specific play episode. The child learns through interacting with others that flexibility and an open stance to new ideas are useful as they enable the play to continue and evolve. This type of play provides opportunities for exploring numerous roles, themes and ways of solving problems. Smilansky concludes that, with teacher planned and implemented symbolic play experience, abstract thought is refined and understanding of the roles and themes from the play episode become highly sophisticated. These demands provide a foundation for skills in literacy learning.

In addition to the literacy learning, Smilansky (1968) found when children are interacting and are engaged in symbolic play, five elements are continually present:

1. There is role playing where a child assumes an identity or character;
2. Make believe transformations occur (e.g., a bowl becomes a crown or a chair becomes a bus);
3. Social interaction occurs between peers;
4. Verbal communication between peers is evident;
5. Persistence in interacting with peers and pursuing or supporting the theme is continued.

These elements constitute the symbolic play episode and are the basic components of symbolic play behavior. There are various elements or characteristics that comprise the art of symbolic play itself, but the young child is not simply just

"playing around." There are various demands on the cognitive, social, physical and emotional abilities of the young child (Rubin, Fein & Vandenberg, 1983). Children utilize these skills in their efforts to symbolically represent.

Schrader (1990) suggests that symbolic play is significant in the following ways:

1. Symbolic play functions as a powerful medium for learning during the years from two to seven.
2. Symbolic play facilitates cognitive and oral language development.
3. Symbolic play serves as a medium for early literacy development.
4. The teacher as participant can effectively use symbolic play as a curriculum tool for early literacy teaching and learning. (p. 10)

Not only is symbolic play important in the ways Schrader (1990) outlines, but Garvey (1986) suggests that four social skills are needed for pretense to be successful:

1. Strategies for positive negotiation and problem solving;
2. Various techniques to join group play;
3. Multiple ways to structure the play episode;
4. An understanding and skill in interacting with roles that manage materials, space and behaviors.

Children who have these skills may be more successful in initiating and sustaining the pretense or symbolic representation.

Although these four social skills are needed for pretense to be successful, pretense or symbolic representation begins as a somewhat solitary activity and becomes increasingly interactive as a child matures in age (Shotwell, Wolf & Gardner, 1980). The young child develops the ability to represent reality with concrete objects, oral language and physical action. A child uses an object, words or a gesture to represent a real concept; a wooden spoon becomes a magic wand and when waved over the head of a peer in the play centre, the peer becomes a frog. Piaget (1962) suggests that this symbolic play and ability to use representation illustrates "the progressive differentiation between the signifier and the signified" (p. 101). The child understands that an object or a person can represent other objects or persons. The child is separating meanings from objects and himself (Singer, 1973; Vygotsky, 1978). Piaget (1962) also states that the symbolic representation includes development and growth of exploration, manipulation, confirmation and labeling skills which lead to continued cognitive and linguistic growth. He continues by stating that through symbolic representation, a young child learns about properties of reality, categorization of concepts and objects and re-enacts events of life that are personally significant or part of the child's environment. Fenson and Ramsay (1980) add that symbolic play provides opportunities for the development and practice

of various skills that form a basis for the development of self awareness and perspective taking and can provide support for the development of effective planning skills.

Symbolic play provides opportunity for the growth and development in various areas for the young child and Rubin, Fein and Vandenberg (1983) have summarized some of the research on symbolic play of the young child in natural settings. From this, five properties or rudimentary attributes have been identified. The first property is "decontexturalizations and object substitutions" (p. 722). A young child needs concrete or real objects to represent symbolically. The young child cannot separate thought from action or thought from object and so needs real materials to support his or her symbolic efforts. As the child become older, he or she uses imaginary or random objects and actions in his or her pretense behavior. Ritualized social play is the second property. Older children understand and act on this understanding of developed roles and sequences of behaviors such as turn-taking or imitation. Research has shown that play patterns emerge with similar roles and predictable actions and that as a child becomes older, these patterns become utilized within the peer group (Garvey, 1974; Mueller & Lucas, 1975). The third property is that of role adoption. Garvey (1977) offers four types of roles as being common in symbolic play. These four roles are:

1. Functional Roles:
   The child assumes a role based on an object or an activity. For example, a police officer's hat may be the impetus for becoming a police officer in the play centre.
2. Relational Roles:
   The role taken on is formed by relationships found in society such as husband and wife or doctor and patient.
3. Character Roles:
   These roles stem from fictional sources such as Santa Claus or the Easter Bunny and also by stereotypical or familiar occupations such as a firefighter or a mail carrier. Often, literature or media are the source of the role.
4. Peripheral Roles:
   These roles are never assumed by the young child, rather they are discussed or addressed. An imaginary friend or reference to a person constitute this role. For example, a child may pretend to have a pet dog or have a pretend mother when playing in the dramatic play area. The child talks about this role, but does not become the role.

This fourth property is the differentiation between thematic fantasy play and sociodramatic play. These are two types of play which are a part of symbolic play episodes. Thematic fantasy play involves the child in the "fantastic" as children become super heroes or fairy tale characters with special powers. Sociodramatic play characters often utilize the relational roles and thus are not being as creative or imaginative as fantasy roles. Both of these types of play are prevalent and demand different skills from the young child. The last property is that of play structures. Bateson (1956), Fein (1979) and Sutton-Smith (1979), have suggested that play can be framed into segments or pieces. These segments have shared rules; there is negotiation, communication and an explicit message to peers that reality is being suspended.

These various properties and frameworks can assist in identifying the structure of pretense in the symbolic play episodes of the young child. Those elements identified by Garvey (1977), Rubin, Fein and Vandenberg (1983), and Smilansky (1968) create a foundation on which symbolic play can be both identified and understood. Symbolic play has also been classified or categorized into specific sequences of development or stages.

Stages and Categories of Symbolic Play

There are various stages of expertise and sophistication of symbolic play. This development of representation evolves through early childhood. Pretense or symbolic representation emerges at approximately two years of age, progressing to eight years of age, with play becoming increasingly complex and prevalent by the age of six (Doyle & Connolly, 1989; Garvey, 1974; Pelligrini, 1985). Several researchers have illustrated the sequence of symbolic distancing (Fein, 1981; Fenson & Ramsay, 1980). **Symbolic distancing** is the ability of the young child to use materials that are significantly unlike the imagined material or situation during symbolic play. Fein (1979) has outlined a sequence of representational abilities in play based on the work of Vygotsky (1978) and Piaget (1962, 1969). Fein suggests that various developmental areas are integrated and assist in the growth of representational ability. Symbolic distancing develops in complexity and ability. The child progresses from simple symbolic acts to abstract, interactive representation. Children aged 15 to 18 months of age symbolically play with appropriate, realistic objects and reproduce scenarios or situations that are personal or familiar, such as sleeping and eating. There is increased interaction with others and an increase in the use of language (Rubin, Fein & Vandenberg, 1983). At the age of two, play includes imitation of others and inclusion of peer themes, actions and ideas (Nourot

& Van Hoorn, 1991). From three to six years, the young child develops the ability to symbolically represent without concrete or realistic materials (Fein, 1981). As the child ages, he or she prefers to use props that can be adapted or used in various ways such as blocks, cardboard or pieces of fabric and increased interaction with peers, and increased verbal discourse occur as the child matures. Pretense play or symbolic play is one of the most common types of play from one to five years and interaction with peers during symbolic play continually increases with age (Connolly, 1984; Johnson & Ershler, 1981; Rubin & Krasnor, 1980). Group pretense or group play involving peers in pretending comprises 70% of the symbolic play episodes of three year olds (Johnson & Ershler, 1981), 74 to 80% of four year olds and 65% of six year olds (Hetherington, Cox & Cox, 1979).

Furthermore, Black (1989) suggests that many studies examine age related changes in four specific areas of symbolic play and that these changes are significant to the development of pretense skills. Children initially utilize one object or demonstrate one action and, as they age, combine various objects and actions (Cole & LaVoie, 1985; Pederson, Rook-Green & Elder, 1981). Children shift from self referencing as a basis for play behaviors to peers as a reference for behaviors (Fenson & Ramsay, 1980; Nicholich, 1977). Children substitute objects in increasingly abstract ways as they mature in age and, finally, the symbolic representation is planned with a common goal.

The development of pretense or symbolism through early childhood has been examined carefully (Fein, 1981; Garvey, 1977; Piaget, 1962; Rubin, Fein & Vandenberg, 1983; Vygotsky, 1978). Piaget (1962) has identified symbolic play and has created categories based on chronological age and ability. These stages and types of symbolic play are widely recognized and utilized today as the basis for research and understanding symbolic play. These stages are:

A. Imitative Play: The young child, during the first 12 months, imitates those in their environment.
B. Pretend or Dramatic Play: At age two and up, the young child re-enacts his or her versions of peer/adult behaviors. As the child ages, the sophistication of the play increases.
C. Sociodramatic Play: The child participates in realistic and accurate role play at four to seven years of age. Usually two or more children cooperatively dramatize experiences with increased verbalization and less emphasis on props as they age.
D. Fantasy Play: The child engages in social pretend play using various symbols that involve fantastic rather than realistic characters and situations.

These categories have been used for analysis in studies of literacy themed symbolic play (Pellegrini & Galda, 1993). Piaget (1962) also suggests that there are three levels in symbolic play: index, symbol and sign. At the index level, the young child uses concrete objects and actions to recognize concepts or objects in the real world. The symbol level involves the child using her imagination to signify events or objects such as a chair becoming a car. The third level, sign, is the most advanced. Here a child can orally or with written symbols, represent objects, actions or concepts. Often, no concrete objects are used.

Gowan (1995) has further categorized imitative and pretend play into nine categories, ranging from pre-pretense, where a child briefly engages in pretense, to planning, where a child plans an act or sequence and then carries out these plans in the play episode. These stages focus primarily on the child aged two to four years of age. Although symbolic play impacts the development of the young child, it does so for a limited time (Piaget, 1962). Symbolic play develops throughout the preschool years and begins to decline in the fifth year (Piaget, 1962). This progression of representation has been called an "inverted U-shaped curve" (Piaget, 1962). As children develop the skills to use symbols, they are able to communicate and develop their understandings of the world around them. The link between symbolic play and growth in various developmental areas is strong (Rubin, Fein & Vandenberg, 1983). The next section will examine how symbolic play impacts the growth and development of the young child.

Symbolic Play and Development

Symbolic play contributes to growth in various developmental areas. Smilansky (1968) suggests that this type of play improves concept development. Singer's (1973) study found that symbolic play fostered the development of concepts and skills, including the development of creative thinking, imaging, abstract thinking, development of attention span and reflective thought. Children also develop prosocial skills such as cooperation, impulse control and perspective taking (Bruner, 1983; Nourot & Van Hoorn, 1991; Rubin, Fein & Vandenberg, 1983). For example, a young child engaged in playing with others is encountering peers' opinions, perspectives and actions which can lead to understanding others' perspective and problem solving (Garvey, 1977; Nourot & Van Hoorn, 1991).

Creativity is also fostered in play. Singer and Singer (1985) discuss how, in the symbolic play episode, the use of symbols and representation is connected to mental imaging and imagination. For example, when children are playing in the dramatic play

area and pretend they are shoppers and store keepers, they are demonstrating mental imaging. This mental imaging enables the young child to develop the details, contexts and pretense used in symbolic play. This leads to creative thought and often divergent thinking (Christie, 1982; Pepler & Ross, 1981). Children involved in a play scenario cope with varying types of peer interaction and experiences, thus demanding from the young child divergent thinking and creative thinking to facilitate and function in the play experience. The positive effects of play on development are varied, including emotional, social, physical and intellectual development (Smilansky, 1968, 1990). Symbolic play is also linked to growth in literacy. The following section will examine this relationship.

The Relationship Between Symbolic Play and Literacy

A growing body of research is reporting a positive relationship between symbolic play and emergent literacy development (Anderson & Stokes, 1984; Isenberg & Jacob, 1985; Pellegrini, 1985; Teale & Sulzby, 1986). The following section will illustrate the development of representational skills in literacy themed symbolic play and the dimensions of an environment that supports this relationship.

The Development of Representational Skills

Play, according to Garvey (1977), is conducive to learning because it is often voluntary, involves elaboration and development of a theme and enables a child to encounter success with a minimum of frustration. Christie (1990) states that when literacy becomes part of symbolic play, literacy is promoted in four unique ways: (a) that children can demonstrate and refine their understanding about literacy, (b) children explore and investigate dimensions of literacy, (c) dramatic play enables the child to explore story structure independently and thus create their own imaginative narrative themes, and (d) the varied experiences children have to utilize authentic and realistic themes and props. Children who participate in literacy themed symbolic play develop the ability to use symbols in abstract ways. Wolfgang and Sanders (1981) present a defense for utilizing play in literacy instruction. They recognize that literacy is a process and draw parallels between Clay's (1975) stages of writing development, and Fein's (1979) stages of representational ability in play. These comparisons of early writing ability and representational skill ability in play demonstrate a parallel between the use of representational skills as they becomes increasingly abstract and

sophisticated. The young child moves from being aware of representation systems to mastery of various types of representations such as writing fluently to engaging in a role and negotiating during a play episode. A child who plays with symbols is developing the ability to use symbols in literacy. This development of representational skill is utilized in both literacy development and the development of play; children use similar representational cognitive processes (Piaget, 1962, 1969).

Vygotsky (1978) considered symbolic play to be a significant part of the development of the young child. He viewed play as a sociocultural endeavor; one where children could cooperatively work or play within a zone of proximal development and participate in a scaffolding process with teachers or peers. Vygotsky considered symbolic play to be critical to literacy development in two ways. First, symbolic play creates an imaginary context where children can explore and experiment with familiar and new concepts. Second, symbolic play creates a scenario where rules for behavior must be followed so that interaction with others and the theme or concept being explored can be maintained. Vygotsky (1978) continues by stating that there is a developmental continuum of representational competence. Symbolic play is one of the early stages of representation that leads to drawing, reading and writing. As children's representational competence develops, so too does their understanding of the processes of literacy. When a young child transforms a peer into a cat and then as an older child has an imaginary car, he or she is refining his or her abilities to abstractly represent concepts and objects and this ability is the foundation for other representational skills to develop and flourish.

Both Piaget and Vygotsky illustrate that using symbols in symbolic play develops skills to deal with signs used in literacy. This early use of symbols in play provides the opportunity to practice and learn skills and concepts that will be used to understand signs that are the basis for reading and writing. The use of representational abilities transfers from play to literacy. One of the first studies to examine symbolic play was that of Smilansky (1968). Preschool aged children in Israel were observed during play and it was demonstrated that children from low socio economic backgrounds had less developed verbal skills than their middle class counterparts. The play training sessions included adult modeling and theme materials. Three treatment groups were utilized in this study. One group had a field trip experience, teacher discussion and opportunity to utilize props in the play centre. The second group had adult modeling of play centres and opportunity to utilize props in the play centre. The third group had adult discussion, field trips, modeling and use of props. The results showed that the children who were involved in the various play training strategies demonstrated increased role taking, more

persistence in play, increased pretense with objects, gestures and actions and increased verbal communication. The third group demonstrated the most significant increase in these skills showing that adult participation, field trips, modeling and the use of props, when combined, provide children with many opportunities and contexts to explore literacy.

Literacy themed symbolic play episode provides just such opportunities for language development (Pellegrini & Galda, 1993; Pellegrini, 1985). In a six-month qualitative study by Roskos (1988), eight children aged four and five were observed. The reading and writing behavior of the pretend play episodes were analyzed. The children used stories to bring meaning to the play sessions. Story telling enabled play participants to be organized in terms of role and theme, encouraged discussion between children and enabled children to share common experiences. It provided opportunity for the child to develop story schema and utilize language imaginatively. Thus, the children developed narrative or story telling abilities. There were two preliminary findings from this study. This integration of play and literacy provide for the child the time and context in which to develop story schema and utilize language imaginatively. The second finding was that "literacy stance" was demonstrated by the young child. Children acted as readers and writers through "literacy routines." For example, a five year old child writing in the dramatic play center will help a peer to write numbers when playing grocery store. This child is demonstrating knowledge of how, why and where literacy is used. These routines consisted of reading and writing behaviors that were interwoven into the play themes of the play episode and provided opportunities for the children to explore, experiment and learn about literacy. Children demonstrated their attitudes, beliefs, skills and abilities about literacy. In providing play as a learning medium, the child is able to explore literacy in personally meaningful ways and develop language and story schema. Thus, Roskos (1988) concurs with Pellegrini that the integration of literacy and play create opportunities for the development of narrative abilities.

Pellegrini, DeStefano and Thompson (1983) suggest that symbolic play assists children in developing the ability to utilize less context focused language and increased their use of abstract oral language. Pellegrini (1980) conducted a study involving kindergarten children engaging in symbolic play and found that they had higher scores in story and vocabulary comprehension and in understanding syntactical aspects of language than children who had little involvement in symbolic play. In a later review of various studies, Pellegrini (1985) found that children produced role appropriate language and appropriate narrative verbal scripts in the literacy based play episodes.

Children participate in social interaction during symbolic play and this can result in social conflicts. The resolutions of social conflicts result in children utilizing language. The ability to utilize language and talk about language is the crucial skill that furthers the representational abilities of the child (Pellegrini, 1985). Pellegrini and Galda (1993) state "verbal interaction and conceptual conflict" (p. 171) in symbolic play creates narrative language and an increase in story comprehension, recall and sequencing ability.

In the area of writing, a young child's writing skills are also fostered by the interaction between play and literacy. Christie (1990) has found that symbolic play encourages verbal discourse between peers and this creates verbal comprehension, production and organization of early writing skills. The development of writing skills is fostered by the literacy themed symbolic play experience. Daiute (1989) believes that just as play develops the oral language capabilities of the young child, play develops writing abilities. Play enables the child to act out or play out ideas and concepts. The composing and pre-writing of the young child are not executed on paper as this process may be too frustrating, indeed impossible, for the young child so the child acts in a comfortable and personal mode - the child plays. When the child is scribbling, drawing or pretending to write, this behavior is the foundation on which writing is based. Although not conventionally recognized as writing, Daiute (1989) and Christie (1991) suggest that this is similar to an adult composing a text. Just as an adult composes or crafts a text, the young child is also prewriting in his or her drawing, scribbling or pretending to write efforts. This concept that literacy is explored with various symbolic representations is echoed by Dyson (1990). Dyson reports that writing and reading are only two of the many symbolic representations that children make in their literacy learning journey. Children naturally and spontaneously use art, dramatic gesture, songs, talk and play as ways of representing and exploring their world. These media enable the child to represent and learn about the world, and this world includes literacy. Children "infuse" meaning and their understandings into these symbolic representations. As they refine their understandings in reading and writing, they do not discard the other symbolic systems, rather the young child utilizes these representations to explore literacy. Dyson (1993) also states that educators must provide opportunity for young children to become fluent and inventive with symbols as this eventually enables the child to become cognizant of what symbolic representation is appropriate to use in specific situations. By supporting symbolic play, talk with peers and creative movement, children become more sophisticated and knowledgeable about symbols and literacy and begin to utilize writing and reading as their primary mode of literacy

communication. Symbolic play is a valued form of communication (Dyson, 1990) and exploration in a child's initial and developing literacy efforts.

Elements of A Supportive Setting for Symbolic Play

Representational skills require a setting. The setting in which a child learns about literacy is perhaps the foundation on which learning about literacy occurs. The National Association for the Education of Young Children, the Association for Childhood Education International, the International Reading Association, the National Council of Teachers of English, and others, have prepared a "Statement of Concerns About Present Practices in Prefirst Grade Reading Instruction and Recommendations for Improvement" (International Reading Association, 1989, p. 161). In it, they detail appropriate principles and practices for a young child's literacy development. They suggest "Learning should take place in a supportive environment where children can build a positive attitude toward themselves and toward language and literacy" (p. 161). An environment that fosters literacy themed symbolic play is a setting that can support these efforts. Mayfield (1992) identifies six characteristics of effective settings:

1. There are well defined areas.
2. The setting and materials are appropriate for young children.
3. The classroom is attractive to children and comfortable for them.
4. The space is flexible and usable in a variety of ways.
5. The physical environment reflects the curriculum and the children's interests and needs.
6. A variety of materials are available and accessible. (p. 179)

As previously mentioned, the strategy of combining literacy with symbolic play can be strengthened with effective, supportive settings (Roskos & Vukelich, 1991). In research based descriptions of young children's play and subsequent recommendations, Roskos and Vukelich (1991) suggest that two important considerations for setting up a literacy enriched dramatic play area. The play space must be organized with distinct areas for specific activities with extensive labeling of materials and signs posted. The second consideration is that of props. These must be changed often and the selection of literacy props be based on three criteria: authenticity, utility or purpose, and appropriateness. Materials must be real, such as various kinds of paper, and different writing tools. Literacy props should reflect the purpose or use of literacy in common or daily life. For example, a child who has magazines at home and sees them being used

will read or pretend to read these during the play session. These props should both suggest and support the child's exploration and incorporation of literacy in play. The last consideration is one concerning safety. All materials or props should be appropriate for the age level of the child. Sharp, pointed scissors may not be appropriate for three year olds, but perhaps pose few concerns with five year olds (Vukelich, 1991). The setting should, most importantly, support and affirm the child. The classroom setting should be a bright, attractive one. Often, centres or areas are created using child-sized furniture and developmentally appropriate materials to create specific spaces. Traffic patterns, safety and flexibility should be considerations when planning the specific areas. Field (1980) has found that small, intimate and well defined spaces enhance task involvement and interaction between peers. Peer and verbal interaction increased as did fantasy and cooperative play in such settings.

In addition to consideration of appropriate materials, material accessibility needs to be considered. Materials should be accessible, labeled and have a specific location so children can independently access materials and responsibly replace them when finished (Neuman & Roskos, 1990). A classroom that has specific areas related to curriculum or content should contain specific literacy materials or materials that may lead to literacy development. The environment should be one that allows for a variety of small and large group activities, as well as areas that enable quiet, private times.

The amount of space within the classroom has a direct effect on behavior and also the use or non-use of centres. The design of the play space influences the play behaviors of children. Smith and Connolly (1980) conducted several studies on the effects of the amount of space and play equipment in the environment on the play behavior of the young child. They observed the behaviors of preschool children before and after intervention of redesigning the setting. They found that small spaces resulted in increased physical contact. Children were less social, but increasingly aggressive. They also found that the environments containing adequate amounts of equipment and materials encouraged less aggressive behavior and less stress for the children.

These environmental factors are considered appropriate and beneficial for the young child. An example of this benefit is the increased production of art and written projects and increased production of complex verbal discourse which are the result of carefully planned play spaces (Moore ,1986; Nash, 1981). Neuman and Roskos (1990) designed the play environment of a preschool classroom in several ways. The play centres were more clearly defined with furniture away from noisier areas. Labeling of equipment and print materials on the walls were increased. The play areas themselves were made to represent real life settings with the addition of props and equipment.

Neuman and Roskos discovered that these changes resulted in children using literacy five ways, both independently and with peers; (a) to explore their environment, (b) to interact with others, (c) to express themselves, (d) to authenticate results and (e) to interact with texts. Literacy becomes more purposeful in that reading and writing were the actions that bound the play into a coherent theme.

The inclusion of "props" or literacy materials such as paper, writing instruments, books and envelopes was found to affect the play and growth of skills in the young child (Neuman & Roskos, 1992; Schickendanz, 1986; Vukelich, 1990, 1991). Neuman and Roskos (1991b) conducted a nine month study examining 91 children (aged 3 to 5). Two daycare centres were used - one being an intervention site where the dramatic play centre was redesigned, environmental print displayed and props added. The second site had no redesign of environment or added literacy props. Video taped play sessions were analyzed for duration and complexity of use of print in play episodes and how literacy objects were used. Results of this study indicated that enrichment of the environment produced increased literacy play. The literacy play increased in frequency and length, became more diverse and new play themes were created. In another study conducted by Morrow and Rand (1991), six weeks of literacy play behaviors of four to six year olds in physically redesigned play centres were observed. Results again were significant. The children participated in increased amounts of voluntary literacy behaviors, explored and experimented with literacy materials and engaged in increased amounts of reading and writing.

Walker (1992) cautions educators and researchers in providing props and theme materials to specific populations. When low role specific literacy props (i.e., props that are not immediately identified as having only one purpose, such as a box which could be used as a car, or house, compared to a doctor's bag which is immediately identified as a doctor's bag) were made available to children of low socio economic status, they did not benefit as greatly as did middle-class populations. Children from non-mainstream groups may have diverse cultural and lifestyle backgrounds and thus middle class themes or props have less impact on the play episodes because they are less familiar and less relevant. Props for non mainstream groups include those that are more general and less stereotypical or structured such as boxes, or various sizes of blank paper. Materials that can be used in a multitude of ways can be used by a all children to address family-based or cultural context. For example, a piece of paper can be used as a bus ticket or a cheque. Some children may be able to use blank cheque forms because they recognize them and are familiar with how they are used. They can use these cheques in obvious

situations such as playing bank or store, as well as extending them to other themes common to their background or life experience.

Roles and Behaviors of Literacy Themed Symbolic Play

All children who engage in literacy themed symbolic play engage in interaction with peers. This interaction often takes the form of enacting a character role. As children are involved in play symbolically, the use of literacy props and interaction with peers becomes distinct and occurs for varying purposes and in diverse ways. The following discussion will examine: (a) the roles the young child assumes in symbolic play and literacy themes, and (b) how children use props and interact with peers.

Possible Roles of Literacy Themed Symbolic Play Episodes

Although the studies in the previous sections report the benefits of integrating symbolic play and literacy, few studies address the specific roles children take on when interacting socially or more specifically when playing symbolically with literacy. For the purpose of this study, the term "role" will be defined using Smilansky's (1990) definition of a socio-dramatic play activity. A child who imitates the actions, gestures, movement and language of an individual (often an adult) will be considered to be displaying the necessary elements needed to be considered assuming a role. The second element is make-believe or imagination. Here the child represents himself or herself in imaginary scenarios and situations, ones that are similar to reality, but cannot be reproduced because the young child has recreated the order, context and details of a situation. So, the role playing of a child will include make believe and/or imitation. According to Smilansky (1990), when a child demonstrates role playing and the creation of imaginary scenarios, he or she is involved in **dramatic play**; and when two children cooperatively participate in assuming a role as defined above, they are participating in **socio-dramatic play**. Children who are involved in learning about literacy may participate cooperatively or independently (Kantor, Miller & Fernie, 1992).

The emotional, physical, social cognitive and artistic dimensions of literacy are made explicit (Vukelich, 1993). In assuming a role, a child can address his or her personal agenda. Questions, problems, issues, wonderings, all of these can be considered and dealt with in the play scenarios (Vukelich, 1993). Using literacy props and playing interactively with peers in a common scenario provides the time, structure and freedom to control, experiment and learn about literacy (Isenberg & Jacob, 1983).

To date, only a small number of studies have investigated the types of roles children use in the literacy themed symbolic play session. One study by Vukelich (1993) examined the behaviors of five year olds over a four month period when involved in literacy enriched dramatic play settings. The dramatic play area included literacy materials such as books, paper, writing instruments and various pieces of equipment such as furniture, blocks, dolls, dishes and other simple toys. The results illustrated that three types of writing information were provided by peers to peers. Peers demonstrated and made explicit the purpose of writing by modeling and direct instruction. Peers coached and reinforced peers about specific features of print; providing scaffolds or guidelines. Finally, peers provided information about the meaning of print, usually to assist in maintaining the play sequence. This research demonstrates some specific knowledge and skill transmission between peers, and although the research did not identify or focus in on the roles young children assume, three roles can be taken from the data and possibly used in studying young children: instructor, coach and facilitator (Vukelich, 1993).

This next study examined the roles of both the adult and the child. Rowe (1989) investigated the role of social interaction in the literacy activities of 21 children aged three to four years. Over eight months, video taping, anecdotal observation, collection of children's writing and ethnographic techniques were used to collect data about children and adults in the writing centre. The results suggested that two roles were predominant. The roles of author and audience were not stagnant, rather both the child and adult shifted roles as the demands of the social and literacy episodes shifted. The social interactions were not just contexts for learning, but were also a means for learning. Specifically, interactions as an audience or author encouraged formation, revision, confirmation and internalization of literacy knowledge. These two identified roles of author and audience at a writing centre may be roles children assume in the symbolic play-literacy episodes. It might be possible to utilize these two roles when observing the young child in a daycare setting. A research study examining literacy themed symbolic play with a focus on adults' roles as author and audience was explored by Neuman and Roskos (1993). They investigated the behaviors adults used to support literacy in play in the early childhood settings of three and four year olds. Six early childhood educators at a daycare centre with 45 children (three to five years of age) were observed interacting in the literacy based play sessions over a six week period. Interviews, personal journal entries of the educators and anecdotal observations were used as data. Analysis consisted of coding and categorizing behaviors. Based on the adult roles in play developed by Gulley and Zobiari (1989) and Woodward (1984), three

patterns emerged. The educator assumed the assisting role of: onlooker, player and leader. The assisting role of onlooker included the adult roles in play of observer, manager and custodian. The player role featured facilitator, participant, co-player, pretender and partner. These roles have the adult participating within the play episode, interacting as a co-player. The third role is leader. Here the adult roles are ones where the adult explains, initiates and demonstrates the dimensions of literacy. Initiator, organizer, tutor trainer, model and planner comprise this role. Children learn from interacting and modeling from those who are capable in their environment. Adults assuming roles in literacy themed symbolic play model behaviors that children may model or adapt (Smilansky, 1968).

Neuman and Roskos' (1993) study specifically examined the adult roles in symbolic play; this study examines the roles of the child involved in literacy play (Neuman & Roskos, 1991a). Based on an interactionist perspective, conversational episodes during print enriched play episodes of children aged four and five, were identified and analyzed. The results demonstrated that instructional conversations were embedded in the play episodes themselves and three roles emerged from the analysis of these conversations. In one role, the child was a designator, where children inquired, defined and verified questions about literacy with a peer. The second role, negotiator, required the child to work out the meaning and reach consensus about some aspect of literacy. The final role was that of coach where one child assisted another with literacy or with play. At all times neither peer dominated, rather both peers assumed complimentary social roles and thus scaffolding and conflict resolution were continually apparent. The studies identified, focused specifically on the roles and behaviors of adults and older children. Only the rudimentary roles and subsequent literacy behaviors of young children have been established (Neuman & Roskos, 1991a; Schrader, 1990; Vukelich, 1993).

Uses of Literacy

When a child assumes a role in symbolic play, the child can explore, learn and practice literacy skills. Engagement in literacy themed symbolic play with peers and props results in children utilizing literacy for various purposes in different contexts. In doing so, he or she demonstrates knowledge of literacy uses. Heath (1983) defined **uses of literacy** as the ways in which participants in an environment utilize literacy skills. In a study observing the reading and writing behaviors utilized in the dramatic play area with preschool aged children, Heath identified ten uses of literacy:

1. Oral message substitute:
   Literacy (writing) was used instead of oral language.
2. Sources of Information:
   Literacy props were used to gain information about literacy or people and to learn information from print.
3. Personal Relationships:
   Literacy was used in peer interaction. Sharing of skills, information and personal information occurred between players. It was also used to explore and extend relationships. Notes, letters and decorated envelopes were ways in which children expressed emotion or communicated with others.
4. Self Expression:
   Children used reading and writing to express and communicate emotion. Note writing or creating a sign expressed the feelings of the young child.
5. Identify Confirmation:
   Writing and sharing the child's name was significant. This use of personal names confirms and is an integral part of self identity for the young child (Ferreiro & Teberosky, 1982).
6. Information Presentation:
   Reading and writing were used to present information to peers.
7. Memory Support:
   Literacy was used as a reminder or memory support.
8. Economic and Business Transactions:
   Literacy was used to address economic and business issues in play, such as using money or checks.
9. Models:
   Reading and writing materials were models which children utilized to imitate or copy.
10. Status of Activity:
    Literacy activities were demonstrated as valued and important.

These ten uses of literacy were also used in a study by Bessell-Browne (1985) with 20 children in a kindergarten setting. The inclusion of props in the dramatic or symbolic play episode resulted in 85% of the children using the props in the literacy behaviors described by Heath (1983). Cochran-Smith (1984) observed a group of preschool children and identified eight uses of literacy. All were identical to several of Heath's categories except one. This category or use of literacy was knowledge acquisition. Here, a child uses literacy to learn about a topic, concept or skill. More

recently, Stone and Christie (1996) have explored the roles and subsequent literacy uses of elementary school aged children. In a four week study of 27 children, in a K-2 multi-aged classroom, the focus was on what literacy behaviors occurred and in what ways children collaborated in the dramatic play centre. The results demonstrated that the social contexts employed by children engaged in literacy themed symbolic play were solitary play, parallel play and collaboration. Of these, the most dominant form of play was collaboration, composing 75% of the video taped play episodes. Within the social context category of play, eight different types of collaborative roles were identified:

1. Modeling - demonstrating how to do a literacy activity with peers observing.
2. Inviting - asking a peer to join in a literacy activity.
3. Assisting - helping a peer to read or write by showing how to do it or by correcting mistakes.
4. Directing - ordering peers to do a literacy activity.
5. Tutoring - teaching a peer how to do a literacy activity.
6. Negotiating - attempting to establish agreement with a peer on the meaning of a text.
7. Affirming - using compliments, nods or signals to approve a peer's literacy efforts.
8. Contradicting - informing a peer that a mistake has been made. (p. 128)

Stone and Christie (1996) observed that the children in their study participated in these identified roles and that these roles were engaged in by the children in assisting peers with literacy skills and tasks. Stone and Christie found that when children participated in role taking and collaboration with peers, they did demonstrate specific literacy behaviors. This collaboration with peers was the basis for many literacy behaviors which are:

1. Reading environmental print
2. Functional reading
3. Recreational reading
4. Academic reading
5. Reading aloud
6. Browsing reading materials
7. Reading extension
8. Functional writing
9. Recreational writing
10. Academic writing (p. 125)

In this study, children did utilize literacy skills and knowledge in the context of symbolic play. Children were exploring, rehearsing and practicing literacy skills and concepts.

Vygotsky (1978) states play is a "rehearsal" of roles and exploration and definition of what these roles represent personally. The child, through role play with literacy materials, practices existing literacy capabilities and expands this set of knowledge, skills and attitude. The studies reviewed here identified and described some of the basic uses of literacy that children demonstrate in the school setting (grades Kindergarten to Grade 2) and specifically the dramatic play area.

Summary

The related literature on (a) symbolic play, (b) the relationship between symbolic play and literacy, and (c) roles and behaviors of literacy themed play was reviewed in this chapter. The importance of symbolic play was illustrated with several studies that demonstrate the positive effects this type of play has on cognitive, social and emotional development (Garvey, 1977; Singer & Singer, 1985; Smilansky, 1968). Specific researchers and theorists who were cited suggest various sequences and basic elements that make up symbolic play itself (Piaget, 1962, 1969). Children move from simple acts of independent pretense to interactive, complex and abstract representational modes. This progression of symbolic distancing and increasingly abstract use of symbols in the play context is linked to growth in literacy development (Vygotsky, 1978).

Studies were presented that highlighted the connection between symbolic play and literacy (Christie, 1990; Clay, 1975; Pellegrini, 1985). This integration enables a child to develop and investigate many literacy skills and concepts. Verbal skills, knowledge about print and the development of writing skills were enhanced when a carefully planned dramatic play centre was prepared. A planned physical space for dramatic play which includes props, furniture, adequate space, print rich materials and well labeled and designated materials in close proximity - all provide a setting which encouraged literacy play (Mayfield, 1992; Smith & Connolly, 1980). The inclusion of literacy props was shown to be a factor in children participating in literacy themed play. Children utilized the props for various purposes and in various ways (Morrow & Rand, 1991; Neuman & Roskos, 1990; Neuman & Roskos, 1991a).

Finally, studies were examined that demonstrated the types of roles and behaviors children assumed during the literacy themed symbolic play episodes. Many focused on the roles the adult assumes in play and on the adult and child roles adopted

while participating in writing or other literacy activities within the classroom or preschool setting (Neuman & Roskos, 1990; Rowe, 1989). These roles included uses of literacy. Children demonstrated literacy behavior and knowledge of literacy and these became evident in the literacy themed play scenarios.

The following chapter will outline the research methodology employed in this study. Included will be a discussion of the research design, data collection, procedures, data analysis, and limitations.

Chapter 3

Methodology

The purpose of this study is to identify basic roles and behaviors of children aged three to five years of age involved in literacy themed symbolic play.

This study utilized various ethnographic techniques in gathering data, including video taping play sessions, event focused observations and informal interviews between the researcher and the participants in the study. The research undertaken was a naturalistic observation study (Gall, Borg & Gall, 1996). This type of study enables a researcher to focus on authentic play episodes in the natural ecological setting (i.e., uninterrupted observation in the natural environment). It also enables the researcher to observe, record and witness the play episodes without obtrusively skewing or "contaminating" the participants' behaviors (Gay, 1987). A naturalistic research design allows for the play patterns and roles to be observed and recorded over a sustained period of time and results in rich, qualitative data. The natural setting was maintained and the participants were comfortable and familiar with the setting. Discussion of the methodology employed will include: (a) setting, (b) participants, (c) equipment and apparatus, (d) procedures, (e) data analysis, (f) limitations and (g) a summary.

The Setting of the Study

Criteria for Selection

The site selected for this study was an inner city daycare centre in an industrial area of a medium sized city. The area services a low socio-economic population where most of the families attending the daycare are single parent families. The centre had ten certified and trained staff members and approximately 60 children enrolled in the full-day program. Only one centre was utilized for the research site, but this permitted

continued exposure to one target population and allowed interpretation and observation of participants that would not have been possible with shorter or fewer observation segments and various populations. This observation of one population over a specific time period of four weeks enabled the researcher to become familiar with play styles, nuances of relationships and personalities of particular children. These insights allowed for more astute coding or analysis of the data.

Children aged 18 months to five years of age attended the centre which was open Monday through Friday. The centre met provincial, legal and early childhood guidelines and often was utilized as a centre for practicam by adult students in early childhood training programs. The site has been in operation for over 20 years and provides service from 7:00 A.M. to 5:00 P.M. Snacks and a hot lunch were provided daily and the centre included English as a second language children and children with special needs. The early childhood program was one which valued play as part of the daily routine and would be considered "child centred" in its approach to working with children. The daily routine included free play activity time, group circle times, including stories, songs and games, gross motor activity times both indoors and outdoors, nap times, and dramatic play times. (Appendix A includes an overview of the daily timetable.) The study was undertaken in a specific area that was designated in the centre as a dramatic play area. This was a permanent, separate room in the daycare and included windows, a carpeted area, shelves and pieces of equipment such as a cooking centre, small tables and chairs, doll cribs, and highchairs. Located along the walls of the room, shelves held various materials or props such as cameras, utensils and cooking apparatus such as bowls, plates, and cutlery, jewelry, dress-up clothes, plastic food and telephones. On the walls were posters of food, houses and children from different cultural or ethnic backgrounds. (Appendix B includes a diagram of the setting.)

Two important features of this specific site were advantageous in conducting research. One, the daycare had an existing dramatic play centre and the children had opportunity to play in this area daily. If the play centre was a novelty to the participants, this could skew results or create a different set of results due to the children having to become familiar with the materials, routine, the play area and the activity itself. The second positive feature was the layout of the daycare facility itself. The facility included various separate rooms. One large room included puzzles, books, sofas, stuffed animals, toys, games, and blocks. Other rooms included an art room, bathrooms, water/sand play area room and a dining room area with tables and chairs. The room for

dramatic play was separate from these rooms and was an established and permanent area with which the children were familiar. The setting was not redesigned, rather literacy props or tools were added to the setting.

Participants of the Study

The participants in this research study were 16 children aged three to five years of age (seven females and nine males) who were enrolled in a daycare. This age group was chosen because previous studies focused on older children and adults. The criteria for inclusion in this study were English speaking three to five year olds who can manipulate a known and familiar language to explore cultural and contextual aspects of North American literacy. The criteria for exclusion from this study were as follows: (a) children who do not speak English with age appropriate fluency, or who are only beginning to learn English and utilize another language as their primary language and (b) children who physically cannot manipulate materials independently or children who have severe behavior challenges or who are violent or unable to positively interact with peers. Children with the above characteristics do merit inclusion in the early childhood environment and can be a very important research focus; however, for the purpose of this study, atypical behaviors or abilities were not the focus.

Recruitment of participants was based on parental consent. Letters explaining the details of the study were sent out to parents and consent was obtained prior to any research undertaken (see Appendix C for letter of consent). Letters were returned to the director of the daycare and only children with parental permission were permitted to participate in the study. A letter of introduction was posted on the parent bulletin board and all consent forms were filed in the daycare office.

The children who participated in this study came from various cultural or ethnic backgrounds. The following is a list of the participants' gender, age and pseudonym. All names have been changed to protect the anonymity of each child. This study included three three year olds (two males and one female), seven four year olds (five males and two females), and six five year olds (two males and four females).

Table 1

Personal Information of Participants in Study

	Pseudonyms	Age	Gender
1.	Tom	5.6 years of age	Male
2.	Joselyn	5.6 years of age	Female
3.	Shona	5.4 years of age	Female
4.	Jennifer	5.3 years of age	Female
5.	Henry	5.2 years of age	Male
6.	Lisa	5.0 years of age	Female
7.	Parker	4.10 years of age	Male
8.	Tyler	4.9 years of age	Male
9.	Karla	4.8 years of age	Female
10.	Frank	4.7 years of age	Male
11.	Albert	4.6 years of age	Male
12.	Jamie	4.2 years of age	Female
13.	Peter	4.1 years of age	Male
14.	Mike	3.3 years of age	Male
15.	Renee	3.2 years of age	Female
16.	Stewart	3.0 years of age	Male

Of the 16 children who participated in this study, there were a total of nine boys (56.25%) and seven girls (43.75%). The ethnic/cultural background of the children in this study consisted of: one Caribbean child (male), two East Indian children (one male and one female), three First Nations children (three males), one Asian child (male), and nine Anglo children (four males and five females).

Equipment and Apparatus

There were two types of equipment utilized in this study. The first was equipment used for data collection. Because the dramatic play area was in one separate room, video taping of the interaction without noise level difficulties from the other areas in the early childhood centre was possible. An RCA CC412 full size video camera mounted on a tripod stand was utilized with standard 120 minute VHS tapes. The video camera was positioned in one corner of the room and was set up in the same position or area for each observation. Initially, the researcher set up the camera and discussed what the camera would do. The children had an opportunity to touch and look through the camera and any questions about the camera were answered. The children had an opportunity to become familiar with the camera and understand what it was before the research took place.

The second type of equipment was a large variety of literacy "tools" or materials (e.g., pads of paper, file folders, message pads, stationery, crayons and pens). Several criteria were used in selecting literacy props for this study. Props were selected based on authenticity; real literacy materials were employed. No changes, modifications or alterations were made. Any literacy materials found in the "real" world would be utilized as children may have or may later encounter these "props."

Neuman and Roskos (1990) suggest three important criteria in choosing literacy props; authenticity, appropriateness and utility. The props should be real items found in natural environments. The props are safe and can be used independently by children; and finally the props are familiar to the child so that the child can engage in literacy activities with a purpose. The selection of props for this study was also based on the work of Halliday (1977) and of Goodman and Goodman (1979) who further developed this research. Halliday identified functions of language that begin at a young age and develop as the child matures. The functions of language and corresponding literacy props by Halliday (1977) are outlined as follows:

1. Instrumental - Props deal with personal interests and needs (e.g., catalogues, coupons)
2. Regulatory - Props instruct others or self (e.g., labels, signs, instruction booklets)
3. Interactional - The props are based on interaction between self and others (e.g., message pads, envelopes)
4. Personal - Props addressed identity and self (e.g., pictures of people)
5. Heuristic - Props provided information and ideas (e.g., alphabet books, science books)
6. Imaginative - Props deal with imagination and pretense (e.g., fairy tales)

7. Informative - Props suggested information and ideas (e.g., telephone books, maps).

Bessell-Browne (1985) selected props in her research on literacy play with kindergarten aged children and utilized these categories to select props.

The props were categorized into themes on a weekly basis. The first week was a general theme of introducing the props. Each day for the first week, several props were placed on a table or on shelves in the area. No discussion or teaching of how to use the props occurred prior to placement of the props, although if the children asked specific questions directed to the researcher, brief explanations were given. A complete listing of these literacy tools is located in Appendix D.

Each week a new theme was set up by the researcher. Themes were planned based on two criteria. One, the theme would be relevant and personally meaningful to this specific population. Themes such as the doctor's office or weddings had been recently developed themes. New themes were planned that would interest the children based on common childhood experiences such as buying groceries or going to a shoe store. Walker (1992) and Heath (1983) found that non-mainstream children, such as these from low socio economic groups, are not familiar with middle class play themes. The themes chosen for this population were ones that are relevant and familiar to the lives of these young children.

Walker's (1992) research was used in deciding upon the themes chosen. In discussing possible themes with the director, the researcher discovered (a) interests of the children, (b) themes that had occurred previously in the daycare. This information, combined with the suggestions of Walker that the themes be linked to possible common life experiences, such as buying shoes, grocery shopping, or playing post office, were used in selecting props and themes. The first week, a general introduction of single literacy props were introduced. The second week an office was created where an adding machine, brochures, money, business cards, and envelopes were made available. The third week, a grocery store theme with boxes, cans of food and coupons, was introduced. The final theme was a shoe store. Shoes, shoe boxes, a shoe store sign, a mirror, blank cheque forms, and catalogues were placed in the centre. Again no formal instruction or directions were given for the operation or use of this equipment.

All props, once introduced into the setting, remained in the setting for the remainder of the study. Any props that were consumed were replaced and any damaged materials were removed or replaced. Each week, as the theme changed, many props were removed and new props based on the new theme were added. These were stored in

plastic containers and stored in the office area. Two telephone books and eight picture books were already in the dramatic play area when the study began.

Procedures

Role of the Researcher

The researcher strived at all times to maintain the role of observer; however, the role of observer-participant did arise. Due to the physical layout of the setting, the researcher was in close proximity to the dramatic play area and thus the children would direct questions or seek emotional comfort from the researcher. When needed, the researcher responded appropriately and then, as quickly as possible, returned to the observer role. The researcher would respond by smiling, nodding or by stating: 'Yes, you can use that.' or 'Yes, you can write in that book.' Acting as an observer provided detailed and close examination of the interaction, the play behaviors and "literacy stance" (Roskos, 1988) between and by the participants.

Observational Procedures

The study occurred over a four week period beginning July 30, 1996. A total of 9.47 hours of video taped observations were collected over 14 days. The researcher had planned to do 16 sessions by observing for four days each week for four weeks; however, the director felt that this might have been difficult for staff members and suggested 14 sessions. Each morning at approximately 9:30 to 10:30 A.M., the children who were interested and had parental consent could join the play area. All children were given a choice as to whether or not they would like to play in the dramatic play area. Children could leave the area at any time and could also join the area if they desired and there was room in terms of number of children (a maximum of six children at one time). Each morning, the researcher would enter the daycare and set up the camera in the dramatic play room. The subsequent play episodes of the subjects were observed daily each morning for 30 to 45 minutes. The approach used enabled description and categorization of roles and behaviors of children engaged in literacy themed symbolic play. The age distribution of the participants ranged from 5.6 years of age to 3.0. There were six children aged five years (ranging from 5.6 to 5.0), seven children aged four years (ranging from 4.10 to 4.1) and three children aged three years (ranging from 3.3 to 3.0). The number of three year old participants was considerably smaller than the four and five year old population. The camera was positioned in the corner of the room to record the play in most of the area. The props and materials were

then brought in and set up. Both of these preparations occurred prior to the children entering the room. The researcher turned on the camera when the children entered the room. The researcher attempted to remain independent of the play during these sessions. The camera was turned off at the end of each session as this was the time the children were to go outside to play. The researcher encouraged children to assist in cleaning or tidying up the area and often the children were very enthusiastic about this. Any materials the children wanted to keep or bring home such as envelopes and notes were put in personal "cubbies" or coat closets. The researcher would save any materials or samples offered during play to the researcher or would collect these from the table and floor when the children had departed. The props and materials were collected and stored in a large plastic tub with a lid. This large tub acted both as a container for props and as a small table in the environment. It was stored with permission in the office of the daycare. Each day, the camera was dismantled and taken home with the researcher. On the final day of observation, the researcher cleaned up the area 20 minutes early and positioned the camera to record the events at the large table with two chairs. The children who had participated with consent and who were present were briefly interviewed. They were questioned about what they enjoyed, what and why it was or was not fun and what they would have liked to have that wasn't present. A list of the interview questions is available in Appendix E. Each day, the researcher endeavored to leave the dramatic area tidy and organized as it was before the play sessions. When the study was completed, the researcher was given permission to leave the props and literacy materials for the children to continue to use.

Data Analysis

Upon completion of the data collection, the tapes were viewed and detailed transcripts describing both the dialogue and actions of the participants during each session were recorded (an example of a transcript is provided in Appendix F). The typed transcripts yielded 103 pages of quantitative data. Qualitative and quantitative methods were then utilized to analyze the collected data.

Initially, the tapes and transcriptions were reviewed and the play sessions were examined to identify both symbolic play frames and literary frames. A **play frame** is identified as "play that has a common location, focus or interchange (Bateson, 1955). **Literacy frames** are defined as "instances of handling reading or writing within play frames" (Neuman & Roskos, 1992, p. 214). The tapes and transcripts yielded 1023

literacy frames. These literacy frames are specific literacy incidents as the child is participating in symbolic play in the dramatic play area.

These frames were then analyzed using four dimensions. The first was identifying the social context of each literacy action. The second was noting the use of literacy by the child. The third was observing literacy behaviors and finally, the type of role assumed was recorded. Each of these are described in more detail in the following sections.

Social Context

The first category or observational guide is social context. Here behaviors were analyzed as: solitary, parallel, paired or group. These behaviors are based on Parton's (1932) social categories. The behaviors were coded as follows:

1. Solitary - child observes or participates independently. There is no discussion or interaction with other peers.
2. Parallel - a child plays beside or near another peer who is involved in the same activity.
3. Paired - two children interact with a common goal, theme or context.
4. Group - two or more children interact with a common goal, theme or context.

Literacy Uses

The second observational guide or category is that of literacy uses as outlined by Bessell-Browne, 1985:

1. Oral Language Substitute - child uses literacy as a replacement for discussion or verbal communication. A child may write out a message and hand this to a peer.
2. Source of Information - props are used as ways to gain information, be it imaginative or made up or actual information.
3. Personal Relationships - literacy props or literacy itself is used to interact and explore relationships with peers, family and others in the environment in both negative and positive ways.
4. Self-Expression - literacy used to express ideas, emotions, problems and successes.
5. Confirming Identity - literacy is used to explore or practice their names.
6. Presentation of Information - literacy props and literacy behaviors provided ideas and information for peers or self.
7. Memory Supports - literacy or props assist in retrieving information.

8. Economic/Business Transactions - props and literacy behaviors were ones that involved real world economic or business concepts such as writing cheques or paying the bill.
9. Models - props are used to reproduce or copy words, letters or pictures.
10. Status of Activity - children behave in serious manner reflecting nature of activity. An example being children acting as a police officer and giving a ticket to others. The tone of voice, discussion and writing of a ticket reflect the nature and seriousness of an event that is perceived as important in some way.

Literacy Behaviors

Each literacy frame was coded once on the literacy behavior observed. Stone and Christie (1996) outlined 10 categories of literacy behaviors (listed below) and these were used in addition to two new categories added by the researcher. The 10 reading and writing behaviors were used with the addition of (a) oral discussion or conversation pertaining to literacy and (b) manipulation or physical handling of literacy props. Oral discussion was added as a category because the children participated in numerous oral discussions and these were a significant part of the play episodes. Physical handling of literacy materials was included because it was demonstrated by all the children as a substantial literacy behavior.

The uses and types of literacy behaviors were examined and the relationship between these and the identified roles was investigated. The researcher examined what various uses and literacy behaviors were most prevalent in each role.

Qualitative observations were made and examined from the tapes and transcripts. The nature of the play sessions, unique characteristics of individual children and play frames and patterns of behaviors or interaction were noted. Finally, interviews with the children were reviewed and responses from the children noted.

Children's specific behaviors were examined based on how they use literacy in symbolic play. The behaviors of the children were coded as follows:

1. Environmental Print - child tries to determine meaning of environment print such as signs, boxes, labels.
2. Functional Reading - child reads various types of text for a purpose or activity.
3. Recreational Reading - reading or reading behaviors for enjoyment.
4. Academic Reading - reading to learn about reading itself (letter or work identification).
5. Read Aloud - child reads to person, animal or prop.

6. Browsing - child looks through texts, booklets and may or may not read.
7. Reading Extension - based on book or literacy prop - child participates in art, drama, game or extending activity.
8. Functional Writing - child writes for a specific purpose or task.
9. Recreational Writing - child writes for enjoyment for self or others.
10. Academic Writing - child participates in writing based activity to practice or demonstrate skill.
11. Handling - child manipulates literacy props for a purpose such as exploration or enjoyment.
12. Oral Discussion - child converses with others or self, discussing some aspect of literacy.

Roles

The final dimension or set of categories is role categories. The categories used by Neuman and Roskos (1991, 1993), Vukelich (1993) and Stone and Christie (1996) were combined and adapted. One role category - blocker - was added to the 13 adapted roles, resulting in a total of 14 roles. Each literacy frame was coded once for role category. At all times, however, the researcher was open to the possibility that unique categories of roles and purposes or uses of literacy may have been demonstrated. The coding completed, the researcher then calculated the frequency and duration of each role category, giving a mean median and range of each type of role.

The final category was that of roles. Behaviors were coded based on the characteristics of each role. They are as follows:

1. Designator - child inquires, defines, verifies or questions some aspect about literacy and clarifies or suggests.
2. Observer - watches, listens, observes other peers' actions, gestures, ideas.
3. Models - demonstrates or imitates how to do something while peers observe, engage, ignore or imitate and arranges and acts "teacher-like."
4. Inviter - elicits response from peers, engages others and asks or invites others to join in an activity or offer an idea. Requests help, demonstration, information or shares or offers materials, ideas.
5. Coach - shares experiences/information/ideas and aids other peers' attempts in literacy. The child may provide feedback, encouragement and teaches, modifies or challenges.
6. Director - plans activities, acts as a leader and refocuses group or individual. The child orders, explains, controls, initiates activities and literacy props.

7. Player/Coplayer - pretends and participates independently or with others. The child acts as a partner. Follows others' leads and offers suggestions.
8. Negotiator - attempts to establish agreement or compromise about play or literacy activity. The child negotiates for power, actions, materials, and props.
9. Affirmer - approves of others' behaviors, gestures, ideas, comments and celebrates with others. The child affirms verbally or with action, emotions of others
10. Contradictor - lets others know mistake has been made and corrects/negates/ contradicts peers' comments, actions or literacy behaviors. Often justifies or comments opposing action or comment.
11. Facilitator - nurtures/fosters belonging/looks out for others and enhances play or literacy tasks. Encourages/placates/attempts to continue or facilitate literacy or play episode.
12. Blocker - the child manipulates others and attempts to stop, interrupt, ignore or exclude others actions, comments. Distances self or others and may insult or exclude physically.
13. Regulator - polices others with comments about behavior or literacy. Notices behaviors of others and manages or attempts to manage others literacy attempts or routines. The child reminds others of behaviors, literacy rules and is concerned with issues of possession, belonging, and rules.
14. Experimenter - explores personal interests and may change theme roles often (i.e., cat to dog, to baker). The child uses voices, gestures, materials or literacy props in unique ways and practices/adapts with literacy props or play scenarios.

A sample of the coding sheet used to analyze the behaviors of the participants in this study is available in Appendix G.

Inter-rater reliability was established between the researcher and another early childhood educator. This inter-rater was not familiar with the children or setting. Twenty random literacy themed symbolic play episodes were chosen. Inter-rater reliability of the codings will be reported for each area with the presentation of the results in Chapter 4. The researcher and inter-rater viewed several tapes after discussing the categories of analysis being used by the researcher. The transcriptions of several of the video observations were read by the inter-rater. The researcher then presented the 20 random literacy themed symbolic play episodes. Each category of analysis was rated by the inter-rater using the coding sheet also used by the researcher. The researcher then calculated inter-rater reliability. Stone and Christie (1996) conducted an inter-rater reliability check on 28 incidents and determined a 92% agreement on the codings and because this study is based heavily on their work, inter-rater reliability was calculated.

Limitations of the Study

There were several limitations in the methodology of this study. First, due to the fast paced nature of play, the primary source of data collection was video taping of the play sessions. The participants were not thoroughly familiar with the researcher and although steps were taken to reduce the impact of the camera on the play episodes, it did affect the participants and subsequent play behaviors. The children were interested in the camera and initially would peer into the camera and ask questions during the play sessions. Over a period of five to seven days, this decreased and finally ceased as the children became more comfortable with the camera and played seemingly unaware or unconcerned about the camera. The children initially were uncertain of the researcher and cautiously approached or questioned her when needing assistance, comfort or clarification about an aspect of the play session or materials. Again, after the first week, this slowly decreased as the children became more familiar and trusting of the researcher.

A second limitation was the subject sample not being random. The daycare did fit specific criteria and all the participants had similar ages and background experiences; however, in choosing a site, there were few, if little choices. Initially, a pilot study had been planned, but only three centres from over 35 contacted centres agreed to discuss this with parents. Each centre declined participating in the study citing parents' concerns of videotaping as a primary reason for not participating. The site of the study was one the researcher was familiar with and had previous contact with the director. This was perhaps one reason that gaining entry to the site was granted.

Observer bias was the third limitation. As only one researcher-observer was involved in observing and data collection, personal biases may arise. Video taping the play episodes to review and utilize the data, as well as an inter-rater coding data, may assist in decreasing any biases in data analysis.

The length of study was a fourth limitation. Four weeks of data collection in the field is a limited time of observation and study. A longer time period in the daycare centre would provide a richer, more comprehensive study of the roles and behaviors of the young children.

The fifth limitation was the small number of children who made up the population of the study. Only 16 children participated and of the 16, only three children were three years of age.

The timing of the study was the sixth limitation. This study occurred in the summer, and at this centre, this is a quieter, less busy time of year. The program is less

scheduled or regimented and often children attend sporadically. If the study had been conducted in late May or another time of year, the children's disposition may have been different as well as their abilities. The same population may have been more sophisticated or have made significant gains in cognitive, social or emotional development, thus changing the behaviors, roles and possible results.

The last limitation was no knowledge of home literacy. The researcher did not have any information about the children's exposure to literacy at home or if literacy materials and routines were readily available to the children.

Summary

The setting of the study, an urban daycare centre, was described and criteria for choosing a site detailed. Problems with gaining access to early childhood environments for both a pilot study and the study itself were explained. The participants of the study, 16 children aged three to five years, were selected based on stated criteria. A table was provided detailing pseudonym names, gender and chronological age. Ethnic or cultural background were identified. The two types of equipment utilized were identified and rationalized. The video taping provided 16 hours of observed play. The literacy tools or props were listed and criteria for prop selection outlined. An overview of the procedures utilized were given, highlighting the basic steps of the study. A discussion of how the data were analyzed included transcripts, observational and quantitative methods. The tapes were examined and literacy and symbolic play incidents identified. The incidents were coded with categories based on research by Bessell-Browne (1985), Neuman and Roskos (1993), and Stone and Christie (1996). The frequency and duration of behaviors and roles and the use of an inter-rater and reliability were stated. Finally, limitations of the study were presented detailing the problems with using video tapes, subject sample, gaining access to the site and length and time of the study.

The next chapter will include a presentation of the results and a discussion of the results from this study. The categories of analysis used will be based on the four dimensions outlined here: (a) social context, (b) literacy uses, (c) literacy behaviors, and (d) role types.

Chapter 4

Results and Discussion

Introduction

The roles and behaviors of young children engaged in literacy themed symbolic play were investigated in this fourteen day study. Sixteen children, three to five years of age, were observed using video taping, interviews and anecdotal records. The literacy incidents were identified, yielding 1023 literacy frames. These were then analyzed for: (a) social context, (b) uses of literacy, (c) literacy behaviors, and (d) role types. The frequency and duration of each category was determined with attention to each age group (three, four and five year olds) and gender (female and male). In identifying the frequencies and durations of the literacy themed symbolic play frames, insights into how adults can support the emergent literacy efforts of the young child were gained.

The three research questions of this study are:

1. What specific roles and behaviors are demonstrated by three to five year old subjects of this study when engaged in literacy themed symbolic play episodes?
2. How do these identified roles and behaviors correspond to the adult and child roles identified by Neuman and Roskos (1993) and Stone and Christie (1996)?
3. What is the frequency and duration of behaviors and roles in literacy themed symbolic play episodes in this study?

The results and discussion will be presented for each category of analysis beginning with social context.

Social Context Analysis

The literacy frames identified were first analyzed for social context. The categories of social context used in this study were: (a) solitary play, (b) parallel play, (c) paired play, and (d) group play. These categories were identified by Parten (1932) and can be utilized in observing young children at play. Parten's categories have been linked to chronological age with younger children participating most often in solitary play and older

children participating more often in group play. Children often participate in all these play types during a typical play session; however, as children's play skills become refined with increased age, increased cooperative play types, such as paired play and group play, are more common. Each literacy-play frame was analyzed for one of these social contexts. In the following four sections, a presentation and discussion of results for each social context category is presented. Table 2 provides the total number of males and females by age who participated in this study. A summary table for social context is found in Appendix H. Inter-rater reliability for social context was calculated and determined at 100% agreement.

Table 2
Total Number of Males and Females by Age

	Males	Females
3 year olds	2	1
4 year olds	5	2
5 year olds	2	4
Total	**9**	**7**

Solitary Play

Solitary play involves one child playing independently. Although many children may surround or be in proximity to the child, he or she is focused on an activity, goal or behavior and participates without interacting with others. Examples from this study are: (a) Renee (3.2 years) would sit on the floor and browse and write on the papers and pamphlets provided; (b) Henry (5.2 years) enjoyed sorting envelopes, writing on pads of papers and writing "cheques."

The frequency of male solitary play and female solitary play episodes with regard to chronological age is listed in Table 3.

Table 3

Frequency of Solitary Play Incidents by Age and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	17	3	20
4 year olds	32	34	66
5 year olds	6	14	20
Total	**55**	**51**	**106**

Of the 1023 literacy frames, 106 frames (10.36%) comprised solitary play. The three year olds participated in 20 incidents of solitary play. The males participated in a higher frequency of solitary play and this is partly due to the two males and one female ratio in this study. The age group that participated most frequently in solitary play was the four year olds, with the females and males participating almost evenly. The three old males demonstrated the majority of solitary play when compared to three year old females. The four year old females demonstrated the majority of this social context for this age group and the five year old females participated in the majority of solitary play. The males of all age groups participated in more solitary play than females of all age groups. The three year old males participated in almost five times as many incidents compared to three year old females. This may be due to the low number of female three year olds. The four and five year old females participated in more solitary play than the four and five year old males. Compared to the other three social context categories, this category resulted in the fewest incidents. This may be due to the low number of three year olds in the study's population. Parten (1932) suggests that older children often participate in more paired or group play.

Parallel Play

An example of parallel play is when two children, seated near one another, are writing on various envelopes and using felt pens. Although they are involved in the same activity, they do not depend on each other or include each other in the play event. Parallel play includes a related activity and physical proximity, but no true cooperation or interaction. In this study, Joselyn and Shona, both five years of age, would often sit side by side at one of the tables and look through the literacy materials. Handling and sorting the various materials, they would play close to each other, but not interact, usually upon first entering the dramatic play area.

Table 4
Frequency of Parallel Play Incidents by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	22	12	34
4 year olds	76	52	128
5 year olds	53	185	238
Total	**151**	**249**	**400**

Analysis of social play context with regard to parallel play resulted in 400 out of 1023 frames (39.10%) which was the largest category of all four categories. The three year old males participated in almost twice as many parallel play incidents as female three year olds. The four year old males participated in more incidents of parallel play than females. The five year old females participated in almost three times as many incidents of parallel play than the five year old males. It should be noted that the number of five year old female incidents is significantly higher than any other age group. This may be due to the females possible interest and abilities. The females may have participated in parallel play more often because it enabled them to investigate and explore literacy more thoroughly.

Although research suggests that parallel play is most prevalent with younger children, the high number of parallel play incidents in this study may be due to the novelty of the materials. There was evidence that many of the children had not been exposed to literacy materials and routines, as many of the children asked permission to use materials from the researcher. The children would often ask each other, or the researcher, how to use materials or what the materials were called. This may then have made the use of materials the focus rather than interacting and playing with peers. Table 4 illustrates the frequency of parallel play incidents in regard to age group and gender.

A second reason the frequency of parallel play may be so high is the child's need to explore and learn about literacy and yet maintain some connections with peers. The young child who writes at the table beside another peer may not be interacting; however, the child still has a physical connection with peers that allows for learning about literacy independently. Karla (4.5 years) and Jamie (4.2 years) would often sit close together at the table, each writing or handling literacy tools as they parallel played. These parallel sessions were often preceded and followed by paired sessions. Again, this may have enabled the children to explore independently, interact with peers and then return to exploring independently without losing the peer connection. The three year olds participated in this type of play more than children of any other ages. This pattern of solitary practice play that developed into more interactive and complex play skills, was reported by Piaget (1962). The larger number of older children participating in parallel play may be an example of Vygotsky's (1978) concept of a child working or playing within a zone of proximal development and participating in a scaffolding process with peers. Shotwell, Wolf and Gardner (1980) suggest that symbolic play begins as a solitary activity and becomes increasingly interactive as a child matures in age. This may be the case with the children in this study and may reflect the developing skills of each age group. The three and four year old males participated more frequently in parallel play incidents than did the females in their age groups while the female five year olds participated in almost four times as many parallel play incidents as did the five year old boys.

Paired Play

Paired play reflects the efforts of two children playing together with a common goal, focus or interaction. Here two children are verbally or physically involved in a cooperative activity. Table 5 details the frequency of paired interactions by age group and gender.

Table 5

Frequency of Paired Play Incidents by Age Group and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	24	1	25
4 year olds	102	65	167
5 year olds	27	153	180
Total	**153**	**219**	**372**

In this study, 372 of 1023 (36.36%) literacy frames were identified as paired play. Of the four social context categories, paired play was the second largest category. The three year old males participated in twice as many incidents as the three year old females. The four year old males participated in more than twice as many as the four year old females. The five year old females participated in more incidents of paired play than the males. The reason for this may be similar to why the females participated in more parallel play. Perhaps the females engaged in more paired play because this was less demanding than group play, but still enabled interaction and possibly some control over the literacy materials and routines. The relatively large number of four year olds in the study may be one possible reason this social context was so frequent. The children could interact with a peer, use literacy in a less demanding social context and still personally explore materials and routines. This interaction with another child may have enabled the young child to learn how literacy affects peer interaction and vice versa. The child could experiment and experience first hand how their literacy efforts affected peers. The five year old children in this study most often engaged in paired play. Issues of ownership, turn taking, proper usage of literacy tools and details of a role were often discussed and dealt with by the four and five year old children. Jennifer (5.3 years) and Tom (5.6 years) would often stand together at the small table and continually discuss literacy materials and what they were doing with them. Jennifer would state she was writing about her cat and Tom would respond with a description of his cat. Jennifer would then debate this with Tom. This social context may have been easier to contend with and made these issues more manageable for the young child compared to a group play context where more peers may

have been more complex and challenging. The low frequency of paired play episodes with the three year old group corresponds with Parten's (1932) suggestion that three year old children more often participate in solitary or parallel play. The three and four year old males participated in the majority of paired play for their age groups. The five year old females, however, demonstrated the majority of paired play incidents for their age group.

Group Play

Group play involves two or more children interacting with a common goal or purpose. Parten (1932) suggests that this type of play is most characteristic of older preschool children.

Table 6
Frequency of Group Play Incidents by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	7	3	10
4 year olds	27	12	39
5 year olds	9	87	96
Total	**43**	**102**	**145**

This social context comprised 145 (14.17%) of the 1023 literacy incidents. The three year old males participated in more incidents of group play than three year old females. This low number of three year old incidents of group play for both genders corresponds to Parten's (1932) findings that three year olds participate more often in solitary or parallel play. The four year old males participated in more incidents than the four year old females. The five year old females participated in a much higher number of group play incidents than males. This high number of group play by females may be due to the possible relationships between some of the females. The director and staff often commented on how several of the five year old females positively interacted. Tyler (4.9 years), Jamie (4.2 years) and Tom (5.6 years) often played shoe store. Each child was trying on shoes, discussing and writing prices, notes and cheques. They talked, exchanged

ideas and props and carefully responded to each other's verbal and physical cues. This category ranked as only the third most common social context. The large number of four and five year olds in the study would suggest a higher number of group play episodes. Again, one could suggest that the previous exposure and experience with literacy tools and routines was limited and the exploration of these materials was more easily accomplished with less socially demanding play contexts such as paired or parallel play. Table 6 presents the frequency of group play episodes in regard to age group and gender. Of the three year olds, males participated in more frequently group play than did females, and the pattern held for the four year olds. The majority of five year old females demonstrated the most incidents of group play.

Duration and Summary of Social Contexts

The duration of each incident of social context was quite similar across age groups. Solitary play ranged from 31 second to 328 seconds, with a median of 146 seconds. Parallel play ranged from 18 seconds to 139 seconds, with a median of 107 seconds. Paired play ranged from 15 seconds to 273 seconds with a median of 178 seconds. The final social context, group play, ranged from 20 seconds to 120 seconds with a median of 103 seconds. Table 7 provides a listing of the duration for each social context.

Table 7
Duration of Play Type

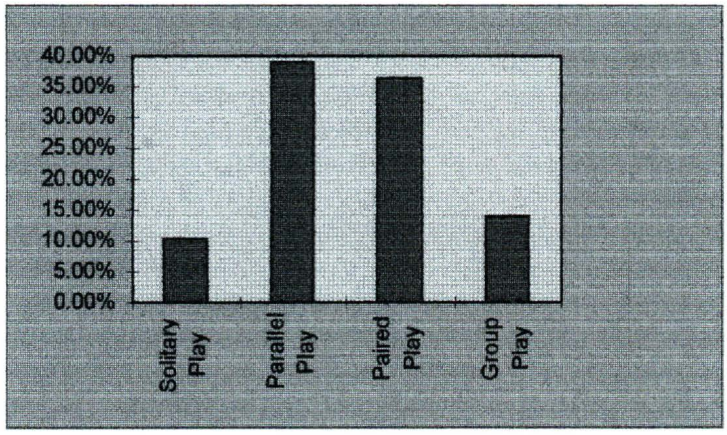
Play Type	Range	Median
Solitary Play	31 to 328 seconds	146 seconds
Parallel Play	18 to 139 seconds	107 seconds
Paired Play	15 to 273 seconds	178 seconds
Group Play	20 to 120 seconds	103 seconds

To summarize the results of the analysis of social context, the three year old group produced a total of 89 play frames with parallel play as the most common social context. The four year old group produced a total of 400 play frames, with paired play as the most frequent social context. The five year old group produced a total of 534 play frames, parallel play being the most frequent social context. Overall, the four year old males demonstrated the majority of parallel play in all social contexts for males. The five year

old females also demonstrated parallel play as the most common social context for females. Table 8 provides a bar graph showing relative proportions of the various play types. Parallel play was the most common play type in this study. Paired play was the second most common type of play in this study. Group play was the third most common, followed by solitary play. The high frequency and parallel and paired play may be due to the participants' need to explore, learn and play with the materials and routines.

Table 8

Bar Graph of Play Type Proportion



Uses of Literacy

The second dimension or measure of each frame was how the children used literacy. Heath (1982) and Bessell-Browne (1985) have identified ten ways in which children use literacy when involved in symbolic play. These studies focused on preschool and kindergarten aged children and demonstrated that if literacy tools were made available, children did indeed participate in literacy routines and demonstrated knowledge, skills and attitudes. Each literacy frame was analyzed using the ten literacy uses and in the following section, analysis for each category is presented and reviewed. The data was analyzed using ten literacy use categories based on Bessell-Browne (1985). Each frame was examined for gender and age group. A summary is located below in Table 9. Inter-rater reliability was calculated and determined to be 81% agreement.

Table 9

Summary of the Frequency of Literacy Uses

	Age 3		Age 4		Age 5		
	Male	Female	Male	Female	Male	Female	
Oral Message	0	0	3	1	7	4	15
Source of Information	37	13	108	95	61	199	513
Personal Relationship	12	1	36	37	8	72	166
Self Expression	6	0	7	8	2	15	38
Identity Confirmation	2	0	7	3	0	5	17
Presentation of Information	9	0	33	21	12	97	172
Memory	0	0	0	0	0	0	0
Economic and Business	4	3	25	10	4	28	74
Models	1	0	4	0	0	7	12
Status of Activity	0	0	1	3	3	9	16
Total	**71**	**17**	**224**	**178**	**97**	**436**	**1023**
%	**6.94**	**1.66%**	**21.90 %**	**17.40%**	**9.48%**	**42.62%**	**100%**
Total by Age		**88**		**402**		**533**	**1023**

Oral Language Substitute

When a child uses literacy instead of oral language, this is considered an oral language substitute. In this study, 15 (1.47%) of the 1023 literacy frames were oral language substitutes. Parker (4.10 years) and Henry (5.2 years) sat at the large table and exchanged written notes without any verbal discussion, writing back and forth on two or three pages together.

Table 10
Frequency of Oral Language Substitutes by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	3	1	4
5 year olds	7	4	11
Total	**10**	**5**	**15**

Males utilized oral language substitutes more than females in all age groups. Both the male and female five year olds demonstrated more number of incidents than the four and three year olds. This may be due to the five year olds age and thus experience with literacy. The five year olds may have understood how and why to use oral language substitutes. This low number of incidents may reflect the low number of three year olds in the study. Often, three year olds verbal skills are less advanced than those of four and five year olds. Another possibility may be the needs of the four and five year old children. Because the literacy tools and routines were unfamiliar, the children may have needed to manipulate and verbalize their explorations and efforts. If the children in the study had been accustomed to using literacy materials, it may have resulted in more sophisticated literacy interactions rather than use of oral language.

Source of Information

The use of literacy provides the young child with a way to gain information about peers, literacy information and everyday expectations or standards about literacy.

In this study, this category included exploration and practice or repetition. The children in this study often repeated literacy actions or routines and often focused on one literacy tool or routine. An example of this is Joselyn (5.6 years) and Shona (5.4 years) both leafing through booklets and discussing roles and literacy. Joselyn would state that she was the Mom and was working at an office, all while writing and reading booklets. Shona would respond that she had to work, too, and that she also had to do reading. Both girls would then discuss how to write on specific papers and use "sticky notes" or what pencils people in offices used. Both girls were demonstrating exploration of materials as they gained information about each other, literacy tools and role expectations. Table 11 provides the frequency of sources of information by age group and gender.

Table 11
Frequency of Sources of Information by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	37	13	50
4 year olds	108	95	203
5 year olds	61	199	260
Total	**206**	**307**	**513**

The five year old children demonstrated the highest frequency of source of information use. In this study, 513 (50.15%) of the 1023 frames were source of information. The four year old males and the five year old females demonstrated this literacy use most frequently. One reason for this may be that the older children had more understanding of literacy and perhaps were more interested in learning and exploring. This may have occurred because, as Shotwell, Wolf and Gardner (1980) report, as children become older, their symbolic representational abilities become increasingly interactive. For both the three and four year

olds, the males utilized the play as an informational source more than did the females in their age group. With the five year olds, the pattern was reversed with the females outscoring the males in this category.

Personal Relationships

Literacy activities can provide the young child with information about peer interaction through sharing personal information, skills and ideas. In this study, literacy acts were used as a means to identify, recognize and extend relationships between play as friends, or when enacting a role. For example, Karla (4.8 years) offers to write her friend Jamie (4.2 years) a note with hearts on it. Karla is sharing her skill of writing and heart making as a gesture of friendship. Jamie responds by writing Karla a note with pictures on it. Table 12 illustrates the frequency of personal relationships in relation to both age group and gender.

Table 12
Frequency of Personal Relationships by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	12	1	13
4 year olds	36	37	73
5 year olds	8	72	80
Total	**56**	**110**	**166**

Personal relationships comprised 166 (16.23%) out of 1023 frames. The five year old group demonstrated higher incidents of personal relationships. The three year old males demonstrated the majority of personal relationship incidents when compared to three old females. The four year old females demonstrated the majority of personal relationship for this age group. The five year old females demonstrated the majority of this literacy use, overall dramatically outscoring the five year old males. This confirms Parten's (1932) findings that older children participate in more interactive social contexts and Teale and Sulzby's (1986) suggestion that children learn about literacy when they participate with

others. The low number of episodes for three year olds may reflect their level of social development and the low number of three year old children in this study.

Self Expression

Children use literacy to express emotion and communicate feelings. Self expression includes expressing and communicating emotions through reading, writing and physically manipulating materials. Shona (5.4 years) was sitting at the table browsing through booklets and writing on the books with a pen. Tyler (4.9 years), Stewart (3.0 years) and Jennifer (5.3 years) moved closer to Shona and began to ask for cheques and money. Shona attempted to answer the many questions and finally wrote on a piece of paper, held up the paper with random letters written on it and announced in an exasperated voice "I'm working and the store is closed!" In this study, as the young children played in the dramatic play centre, emotion was expressed more often verbally than physically. Table 13 presents the frequency of self expression incidents by age group and gender.

Table 13
Frequency of Self Expression Incidents by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	6	0	6
4 year olds	7	8	15
5 year olds	2	15	17
Total	**15**	**23**	**38**

The literacy frames were analyzed for self expression and resulted in 28 (2.74%) incidents out of the 1023 frames. The three year old males participated in the majority of self expression incidents for this age group. The four year old females demonstrated the majority of self expression incidents for this age group. The five year old females also demonstrated the majority of self expression incidents for their age group. The low frequency of self expression as a literacy use by all three age groups may possibly be explained by the developmental abilities of the children. Preschool children tend to use oral discourse or physical action to express emotions. Using literacy as self expression

may be too developmentally advanced for most three, four and five year olds. It would be difficult for an angry three year old to write on a piece of paper "Don't take my pencil again" and a four year old to respond by writing back "No, it's mine." In this study, the four year old children most often used literacy in this fashion. Jennifer (5.3 years) was writing on a piece of paper, trying to show Tyler (4.9 years) how to write the word black. After Tyler pushed her hand away as he practiced writing, Jennifer called him a name and wrote on a paper stating she was writing he was dumb.

Confirming Identity

Confirming identity is defined as any literacy event that deals with the child's name. Lisa (5.0 years) became upset when Tom (5.6 years) wrote her a police ticket and asked Joselyn (5.6 years) how to spell her name. Lisa commanded Joselyn not to tell how to spell her name and glared at Tom. Table 14 presents the frequency of identify and confirmation incidents by age group and gender.

Table 14
Frequency of Confirming Identity by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	2	0	2
4 year olds	7	3	10
5 year olds	0	5	5
Total	**9**	**8**	**17**

The literacy frames were analyzed for identity confirmation and resulted in 17 (1.66%) out of 1023 incidents. The four year old boys demonstrated the highest number of identity confirmation incidents. The five year old females demonstrated the majority of confirming identity for this age group. It was interesting to note that no three year old females and only two three year old males participated in confirming identity. The total frequency of confirming identity was 17 incidents and is low in this study compared to Bessell-Browne's (1985) description as "countless times" when the kindergarten participants wrote or dealt

with their names in her study. The low frequency here may be due to the large number of four year olds and the novelty of the use of literacy materials and tools. It may be interesting to note if children did practice writing their names in the art centre, or if this skill was not familiar or yet interesting to the four and five age group.

Presentation of Information

This literacy use category was the third most frequent. Peers use literacy to present information to each other. For example, Joselyn (5.6 years) entered the dramatic play area with Shona (5.4 years) and both began to sort through the books and papers. Joselyn became excited and said to Shona: "Look, remember we used this book. Look at all the words." Table 12 provides the frequency of presentation of information incidences by age group and gender.

Table 15
Frequency of Presentation of Information Incidences by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	9	0	9
4 year olds	33	21	54
5 year olds	12	97	109
Total	**54**	**118**	**172**

The literacy frames were analyzed for presentation of information and resulted in 172 (16.81%) out of 1023 frames with five year olds accounting for the majority of the incidences. The five year old females participated in the majority of presentation of information incidences for their age group. The four year old males participated in more presentation of information occurrences than did four year old females. Only male three year olds evidenced this category; no occurrences of presentation of information were noted for the females. As only three three year olds participated in this study, it may not accurately reflect the possible abilities and interests of a typical three year old child. According to Parten (1932), this age group is often more interactive and cooperative and so

the presentation of information to peers may be more representative of this age group. The three and four year old groups' levels of frequency also reflect Parten's (1932) findings that three year olds are more likely to participate in solitary or parallel activities and so presentation of information to peers may not be as frequent as those demonstrated by four and five year olds.

Memory Supports

Each literacy frame was analyzed for memory support. Memory support is a way to remember an event, detail or idea. In this study, there were no uses of memory support during the literacy themed symbolic play incidences in any age group. As both Bessell-Browne's study and this study found this literacy use uncommon, it may not be a useful category of analysis for three to five year old children. In Bessell-Browne's (1985) study, there was only one incident of memory support. In her study, two females were reading a Christmas catalogue. One female wrote the item name on a piece of paper.

Economic/Business Transactions

The literacy frames were examined for economic/business transactions. The young child uses literacy to deal with economic and business issues found in the real world and thus in the play context. For example, Tyler (4.9 years), Jennifer (5.3 years) and Stewart (3.0 years) were seated together at a table containing various envelopes, paper, writing instruments and play money. Each child wrote or scribbled on papers and exchanged cheques and money playing office. Much discussion of what the cheque should say, the amount and the protocol of accepting and returning money and cheques occurred. Table 16 provides an overview of the frequency of economic/business transactions based on age group and gender.

Table 16

Frequency of Economic/Business Transactions by Age and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	4	3	7
4 year olds	25	10	35
5 year olds	4	28	32
Total	**33**	**41**	**74**

Of the 1023 literacy frames analyzed, 74 (7.23%) were economic/business transactions. The children in this study focused on money, cheques, prices of items and receiving and giving change. In their age group, the three year old males participated in the majority of economic/business transaction incidents; the four year old males participated in the majority of economic/business transaction incidents; and the five year old females participated in the majority of economic/business transaction incidents. One reason that economic and business transactions were frequent with both the four and five year olds may be that they have more knowledge, awareness or experience with business and economic issues in the world around them. Bessell-Browne found that the focus of the children was on coupons and doing taxes.

Models

The models category was defined as children using props to reproduce some aspect of literacy. For example, Parker (4.10 years) would look at cereal boxes when playing grocery and would copy or write down numbers found on the box on a slip of paper and would read them out loud to himself. Table 17 provides the frequency of modeling episodes by age group and gender.

Table 17

Frequency of Modeling Incidents by Age Group and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	4	0	4
5 year olds	0	7	7
Total	**5**	**7**	**12**

This study found that 12 (1.17%) of the 1023 literacy frames were instances of modeling. Although the total number of incidents is small, it is interesting that no female three and four year olds or male five year olds engaged in modeling in this study. The three and four year old males participated in more modeling incidents; the female three and four year olds demonstrated no modeling incidents. The five year old females demonstrated seven incidents of modeling and the five year old males demonstrated no incidents of modeling. This could be due to the close relationships between some of the female five year olds and increased knowledge or experience with literacy for this age group. Overall, modeling was one of the least frequent incidents of literacy use. This may be explained by the children's lack of experience in playing with literacy tools in the dramatic play setting. For example, if a child had not used literacy materials in the dramatic play centre, the child's energies may often be focused on the literacy tools themselves rather than modeling. It would be interesting to observe the children after several months of playing with literacy tools in the dramatic play centre, and notice any increased use of modeling.

Status of Activity

This last category, status of activity, was identified as a child's attempt to participate in and recognize the importance and seriousness, of a literacy activity. For example, Tom (5.6 years) verbally announced he was a "police officer" and then began to write everyone a cheque. These cheques were hand delivered and with a serious tone he would tell them it was a police cheque and they would have to pay him. Children would

convey the serious nature of an activity both verbally and physically and would often comment on how and why the literacy event was significant. In another example, Shona (5.4 years) played at the table and would announce to the group that she was "the boss" and would proceed to write on booklets and "do her work." Table 18 details the frequency of status of activity incidences by age group and gender.

Table 18
Frequency of Status of Activity by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	1	3	4
5 year olds	3	9	12
Total	**4**	**12**	**16**

Of the 1023 literacy frames analyzed, 16 (1.56%) were status of activity. The high frequency of five year olds, and next highest of four year olds, may again demonstrate children the relationship between age and level of literacy knowledge. There were no incidents of status of activity by the three year old groups. The four year old females demonstrated the majority of status of activity for this age group. The five year old females demonstrated the majority of status of activity for this age group. Kostelnik, Stein, Whiren and Soderman (1988) suggest that interaction with peers increases learning development of skills in negotiation, problem solving, perspective taking, sharing and communication. As a child becomes older, he or she is developing an awareness of the importance of activities and how these activities affect others.

Durations

In this study, the duration of each incident of literacy use was calculated. The inter-rater reliability for duration was calculated at 100% agreement. The duration of each literacy use is given in Table 19.

Table 19
Duration of Literacy Uses

	Range (in seconds)	Median (in seconds)
Oral Message	16 second to 49 seconds	31 seconds
Source of Information	8 seconds to 360 seconds	291 seconds
Personal Relationship	3 seconds to 30 seconds	18 seconds
Self Expression	10 seconds to 42 seconds	31 seconds
Identify Confirmation	6 seconds to 30 seconds	21 seconds
Presentation of Information	20 seconds to 80 seconds	58 seconds
Memory Supports	-	-
Economic and Business Needs	5 seconds to 20 seconds	19 seconds
Models	6 seconds to 49 seconds	32 seconds
Status of Activity	12 seconds to 35 seconds	19 seconds

The longest incident duration was source of information with a median of 291 seconds. The shortest incident duration was personal relationship with a median of 18 seconds. It should be noted that there were no memory support incidents.

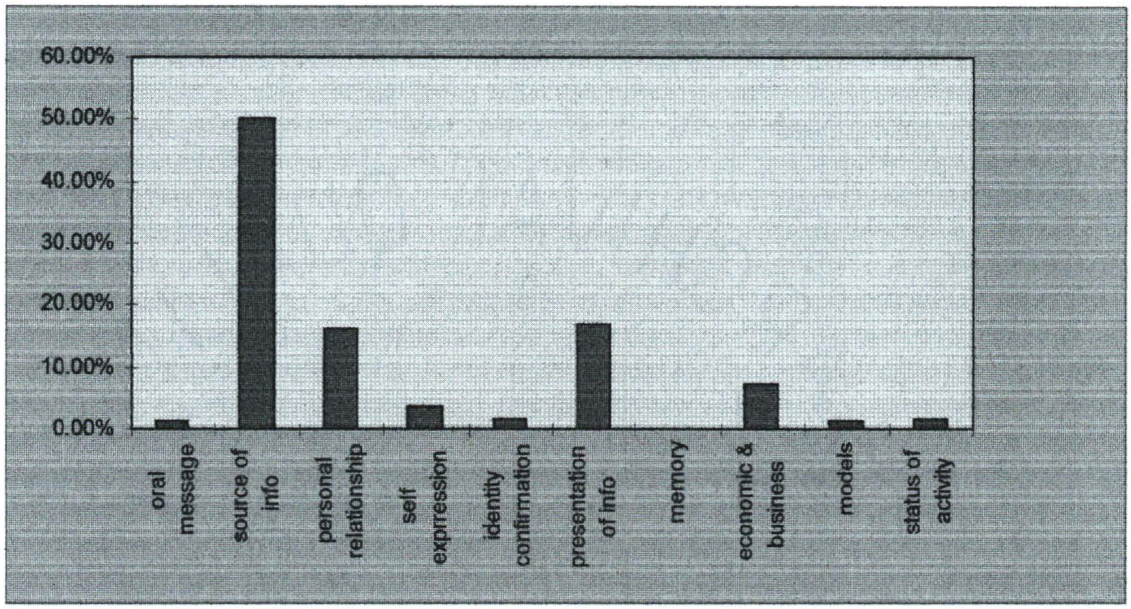
Summary of Literacy Uses

The analysis of literacy uses demonstrates that the addition of literacy tools to the dramatic play area did result in preschool children using literacy in various ways. The most frequent literacy use demonstrated was source of information, for all three age groups. There were no incidents of memory support and relatively few for importance of activity. The longest episode of literacy use was source of information. In their age group, the five year old females in this study demonstrated the majority of literacy use incidents as did four year old males. This study has demonstrated that the literacy use categories Bessell-Browne (1985) developed in her study of kindergarten children can also be used at

the preschool level. Table 20 provides a bar graph showing relative proportions of various literacy uses.

Table 20

Bar Graph of Literacy Uses Proportions



The bar graph illustrates that the most common literacy use was source of information. Presentation of information was the second most common literacy use. The third most common literacy use was personal relationship.

Literacy Behaviors

The next type of analysis examined the behaviors demonstrated by the children. Ten literacy categories outlined by Stone and Christie (1996) formed the basis of this analysis with two additions, (i) oral discussion and (ii) manipulation or physical handling of literacy props. These two categories were included because of the significant number of oral and manipulation episodes demonstrated by the children in this study. Each frame was coded using these 12 categories. The following 12 sections present the results and discussion of each literacy behavior from this study on preschool aged behavior. Appendix J presents a summary of the frequency of literacy behaviors. The results of literacy behavior analysis are discussed below.

Environmental Reading

A young child who is looking at and trying to find meaning, or actually is reading print from the surrounding environment, is participating in environmental reading. Jennifer (5.3 years) would read the "fax" on one of the notepads and would write letters on the paper and then give her peers a fax note. Table 21 provides the frequency of environmental reading behaviors by age group and gender.

Table 21
Frequency of Environmental Reading by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	7	1	8
5 year olds	1	15	16
Total	**9**	**16**	**25**

The environmental reading behaviors demonstrated in this study were 25 out of 1023 frames, or 2.44%. This literacy behavior was most frequent in the five year old group and least frequent with the three year old group. The three year old males demonstrated only one incident of environmental reading and the females no incidents. The four year old males demonstrated more incidents of environmental reading than four year old females. The five year old females demonstrated more environmental reading incidents than five year old males. A common generalization in the literature is that most three year old children are not expected to be reading and many four and five year old children show interest in reading. The results of this study seem to reflect this. Stone and Christie (1996) found that only three instances (4.67%) of the kindergarten aged children in their study demonstrated environmental print reading. This compares closely to the five year old children in this study with 25 instances out of 1023 (4.73%). The duration of this behavior ranged from six seconds to 18 seconds, with a median of 10 seconds. Only one male in the three year old age group participated in environmental reading. The four year old males

demonstrated the majority of environmental reading incidents and the five year old females demonstrated the majority of environmental reading for their age groups.

Functional Reading

The literacy behavior identified as functional reading includes a young child using print for a specific activity or purpose. For example, Lisa (5.0 years) would read through booklets as she was discussing going camping with peers and when she came across a map in the book, announced "Look, this is a map and it tells us where we can go camping." Table 22 details the frequency of functional reading behaviors demonstrated in this study by age group and gender.

Table 22
Frequency of Functional Reading by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	1	2	3
5 year olds	1	3	4
Total	**3**	**5**	**8**

In this study, the functional reading behaviors demonstrated were eight out of 1023 (0.78%) incidents. The three year old males participated in more incidents of functional reading than three year old females who demonstrated zero incidents of functional reading. The four year old females demonstrated more incidents of functional than four year old males. The five year old females demonstrated more incidents of functional reading than five year old males. In Stone and Christie's (1996) study, ten kindergarten children demonstrated 54 functional reading episodes. Dyson (1990) has found that art, music, play, songs and play are early ways of representing and exploring. She suggested that drawing and scribbling can be foundations for reading. Perhaps the children in this study were more familiar with writing behaviors than independent reading behaviors. The duration of functional behaviors ranged from four to ten seconds, with a median of six seconds. With

the exception of the three year olds, these behaviors were more frequently demonstrated by the females than the males.

Recreational Reading

This literacy behavior involves the young child demonstrating reading or reading behaviors for enjoyment. This type of reading is different from functional reading because there is no apparent purpose demonstrated by the child when reading. This type of reading is done solely for the enjoyment of the activity. The child may look through a book or read boxes simply for the pleasure of reading or looking at print. Peter (4.1 years) would sit at the small table and look through the many pamphlets, booklets and leaflets provided. He would often point out interesting pictures or features of the text. Table 23 provides the frequency of recreational reading behaviors by age group and gender in this study.

Table 23
Frequency of Recreational Reading by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	4	0	4
5 year olds	0	4	4
Total	**5**	**4**	**9**

Recreational reading accounted for 9 incidents, or 0.98%, of the literacy frames. This type of recreational reading was most frequent with both the four and five year old group with four instances in each group. Only one three year old male participated in recreational reading in the three year old age group. Four year old males participated in more incidents of recreational reading than the four year old females who demonstrated no incidents of recreational reading. In the five year old age group, only four incidents were demonstrated, all by the females. The low incidents of recreational reading in this study may be due to the low number of children. Stone and Christie (1996) found that six instances of 54 (11%) literacy frames were recreational reading. This was a higher percentage for recreational

reading than found in this study and warrants further investigation. The range of recreational reading was three seconds to 105 seconds, with a median of 39 seconds.

Academic Reading

In academic reading, a child reads print to learn about reading or practices skills associated with reading. Shona (5.4 years) was reading through booklets and verbally stated: "Look, see, this book has all these words." She then pointed and in an excited voice declared: "Oh, that's 100, wow, that's big." Table 24 is the frequency by age group and gender of academic reading behaviors demonstrated in this study.

Table 24
Frequency of Academic Reading by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	0	1	1
5 year olds	0	2	2
Total	**0**	**3**	**3**

Only three instances (0.29%) of academic reading occurred across age groups. Academic reading was demonstrated by only one four year old and two five year olds. This is similar to Stone and Christie (1996) who reported only one instance with kindergarten children who demonstrated 54 literacy behaviors. Although some children learn to read at very early ages, the general preschool population does not. Therefore, academic reading may be too developmentally advanced for this preschool aged group of children. Stone and Christie also found low incidences of various reading behaviors. The range of academic reading was four to nine seconds, with a median of five seconds. No three year olds participated in this literacy behavior. Also, no males across the age groups participated, but with so few incidents of this behavior type, nothing conclusive can be said.

Read Aloud

Read aloud is the next literacy behavior and includes a child reading or participating in reading-like behavior to a person, prop or toy. Peter (4.1 years) sat at the table and looked through booklets, envelopes and papers. He pretended to talk to someone on the phone. After hanging up, he held open a book and read out loud to an imaginary friend, saying: "See, it says car." Table 25 provides the frequency of read aloud behaviors demonstrated by age group and gender.

Table 25
Frequency of Read Alouds by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	1	0	1
5 year olds	1	4	5
Total	**2**	**4**	**6**

This study identified five instances, or 0.48%, from 1023 literacy frames. Albert (4.2 years) sat at the small table beside two other peers. He read numbers from a little booklet to his peers and said: 'It has lots of numbers.' No three year old male or female demonstrated read aloud behavior. Only one four year old male demonstrated read aloud in this age group. Five year old females demonstrated more read aloud incidents than five year old males. Stone and Christie (1996) found only 11%, or six out of 54 instances resulted in read aloud behaviors. It may be that the young children have not had many book reading experiences and the lack of reading skills made this behavior unfamiliar and this unimportant to the young children. The range of this behavior was from six seconds to 18 seconds with a median of 12 seconds.

Browsing

Mike (3.3 years) picked up several booklets and leafed through the pages. Occasionally he stopped and reviewed or carefully examined a page and would then continue to flip through pages. A child who looks or briefly reads print or books is browsing. The child is not reading for a specific purpose or for enjoyment, but is scanning or looking over materials. The frequency of browsing behaviors is provided in Table 26 by age group and gender.

Table 26
Frequency of Browsing by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	4	0	4
4 year olds	6	3	9
5 year olds	1	39	40
Total	**11**	**42**	**53**

This study identified 53 browsing incidents out of 1023 frames (5.18%). Browsing was the most frequent of all the reading behaviors in the literacy behaviors category. The five year olds had the highest frequency with 40 out of 53 browsing behaviors, followed by the four year olds with nine instances and then the three year olds with four. The three year old males demonstrated more incidents of browsing than three year old females. The four year old males demonstrated twice as many incidents of browsing than four year old females. The five year old females demonstrated more incidents of browsing than five year old males. These results were higher than those of Stone and Christie who reported only two browsing episodes out of 54 (3%). However, they found a higher percent of functional reading episodes. This difference in studies may be that one group had more experiences with booklets, pamphlets, or catalogues. The higher number of five year old participants in browsing may again be related to possible increased knowledge of literacy due to maturity. The range of browsing behavior was 12 seconds to 222 seconds with a median of 136

seconds. The three year old males demonstrated the majority of browsing incidents for this age group. The four year old males demonstrated the majority of browsing for this age group. The five year old females demonstrated the majority of browsing incidents for this age group.

Reading Extension

This literacy behavior includes a child participating in an activity that is related to books or print such as a game, art activity or drama action. Shona (5.4 years) was reading a book at the table with Jennifer (5.3 years). She called out: "Look, look, here is a bride!" Jennifer then jumped up and went to get a bucket of necklaces, saying: "Let's pretend we're going to a wedding." Often, the literacy materials or print context acted as a catalyst for symbolic play events. Table 27 provides the frequency of reading extension behaviors by age group and gender.

Table 27
Frequency of Reading Extension by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	1	0	1
5 year olds	0	1	1
Total	**2**	**1**	**3**

In this study, five, or 0.49%, of the 1023 frames were labeled reading extension. Only one three year old male demonstrated reading extension behaviors in this age group. Only one four year old male demonstrated reading extension behaviors in this age group. Only one five year old female demonstrated reading extension behaviors in this age group. This behavior may not be as frequent as other literacy behaviors because perhaps some of the children may not have had much experience with book handling or activities related to books (planned by adults or initiated by other children). The frequency of reading extension was low, but was similar to Stone and Christie's (1996) results. Of the 54

literacy behaviors of five year olds, four (7.40%) were reading extensions. The lower frequency in this study may be due in part to unfamiliarity with literacy tools. Exploration of what the materials could do and how they affected peers or the environment may have been of more interest than reading extension behaviors. The range of this behavior was from 15 seconds to 18 seconds with 16 seconds as the median.

Functional Writing

This literacy behavior is defined as one where a child writes with a specific purpose or goal in mind. Tom (5.6 years) would write on papers and state: "I'm in school and I'm working." Tyler (4.9 years) would write and draw lines in an information booklet and tell his peers: "I'm the camper guy and I write about camping." Although the children may not have been spelling or composing standard sentences, they were writing letters, numbers, drawing lines and filling in forms with scribble writing. Table 28 provides the frequency of functional writing behaviors by age group and gender.

Table 28

Frequency of Functional Writing by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	12	0	12
4 year olds	32	17	49
5 year olds	4	66	70
Total	**48**	**83**	**131**

This literacy behavior accounted for 12.81%, or 131 out of 1023 instances. The age group with the highest frequency was the five year olds, then the four year olds, followed by the three year olds. This increase in frequency by age may reflect the developing physical and cognitive skills of each age group. The three year old males demonstrated the majority of functional writing for this age group. The four year old males demonstrated the majority of functional writing for this age group and the five year old females demonstrated the

majority of functional writing for this age group. Ten out of 54 (18.52%) of the kindergarten literacy behaviors in Stone and Christie's (1996) study were functional writing. and were. Younger children in this study seem to enjoy writing recreationally and may not have understand the purpose of writing or had specific goals in mind compared to older preschool children. The range of this behavior was from 54 seconds to 242 seconds with a median of 135 seconds. Functional writing incidents were of longer duration compared to other literacy behaviors.

Recreational Writing

Recreational writing is writing for enjoyment for self or for others. A child who draws and writes a note with no apparent goal or function is writing recreationally. Lisa (5.2 years) would often leaf through booklets and write or scribble in them for one to two minutes at a time. Albert (4.6 years) would take a pad of paper and write and scribble on many pages, smiling and concentrating carefully as he wrote. The children would write recreationally by themselves or parallel to others, and often, the children would discuss common play themes such as going camping or being a pet as they wrote or scribbled on paper and into booklets. Table 29 outlines the frequency of recreational writing behavior by age group and gender.

Table 29
Frequency of Recreational Writing by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	14	5	19
4 year olds	25	37	62
5 year olds	32	108	140
Total	**71**	**150**	**221**

Recreational writing was the third most frequent literacy behavior. The frequency of this literacy behavior in this study was 221 out of 1023 literacy frames, or 21.60%. An interesting aspect of this result was the instances of recreational writing by girls compared

to boys: 150 female to 71 male instances. As this study's sample consisted of nine males and seven females, one might have expected a more equal number of recreational writing incidents. The three year old males demonstrated more recreational writing incidents than three year old females. The four and five year old females demonstrated more incidents of recreational writing than the four and five year old males.

This increase of incidents with age may parallel general development; for example, as a young child increases in age, he or she generally increases in cognitive skill (Piaget, 1962, 1969). The five year old group demonstrated almost twice as many incidents of recreational writing compared to the four year old group. It is interesting that recreational reading is 0.87%, but recreational writing is 21.60%. The range of this behavior was from 15 seconds to 173 seconds, with a median of 116 seconds.

Academic Writing

The young child who is participating in a writing based activity to practice or demonstrate a literacy skill is one that is academically writing. Jennifer (5.3 years) was standing by the table and announced that she was making a sign for her lost dog. She proceeded to write on a piece of paper "LST DOG." She then handed this to Tyler (4.9 years) and instructed him to write about the dog. He wrote random letters on paper and handed them to Jennifer. She proceeded to then write out "lost dog" several times on different pieces of paper. Table 30 presents the frequency of academic writing by age group and gender.

Table 30
Frequency of Academic Writing by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	3	3	6
5 year olds	5	1	6
Total	**8**	**4**	**12**

In this study, only three out of 1023, or 0.29% of the frames, were academic writing behaviors. This behavior was again most frequent with the older children in the study. The three year olds demonstrated no academic writing incidents. The four year old males and females each demonstrated three incidents of academic writing. The five year old males demonstrated more incidents of academic writing than five year old females. The low incidence of academic writing corresponded with Stone and Christie's (1996) observation. One out of 54 literacy behaviors, or 1.85%, were identified as academic writing. The range of academic writing was seven seconds to 49 seconds with the median being 33 seconds. This low frequency of academic writing incidents may be due to the novelty of literacy experiences. Although the daycare provides various art, singing and book reading opportunities, no formal or informal instruction was planned regularly for literacy. This may have an affect on the child's understanding of some literacy concepts. No information was obtained about the children's home literacy experiences. The majority of academic writing was by males in all the age groups. The number of males demonstrating academic writing was twice that of females.

Oral Discussion

This behavior was one that was included by the researcher. Dyson (1993) suggests that symbolic play, creative movement and talk with peers must be valued as they are the foundation of literacy growth. If these primary modes of communication are fostered, then the growth of reading and writing is enhanced. The children in this study ranged from three to five years of age and oral discussion was an obvious and significant behavior that was demonstrated repeatedly. Often the children would orally discuss a feature, aspect or concept of literacy, or they would discuss how the literacy tool or routine functioned in the play episodes or roles. For example, Albert (4.6 years) informed Frank (4.7 years) that once papers were written on, they went into envelopes. Karla (4.8 years) would tell Tyler (4.9 years) that certain pieces of paper would not fit in the adding machine and would proceed to demonstrate with a continual verbal commentary on how to use the machine and fold paper. Oral discussion comprised 236 frames of the 1023 (23.06%). Table 31 presents the frequency of oral discussion by age group and gender.

Table 31

Frequency of Oral Discussion by Age Group and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	10	0	10
4 year olds	54	39	93
5 year olds	19	114	133
Total	**83**	**153**	**236**

Oral discussion resulted in the second highest frequency of all the literacy behaviors. The three year old males demonstrated more incidents of oral discussion than three year old females. The four year old males demonstrated more incidents of oral discussion than four year old females. The five year old females demonstrated more incidents of oral discussion than five year old males. This may be due in part to the children's high verbal skills. Pellegrini, DeStefano and Thompson (1983) state that symbolic play assists children in developing abstract oral language. Christie (1991) found that symbolic play encourages oral discussion between peers and thus develops verbal comprehension, and production and organization of early writing skills. The symbolic play experiences supported and perhaps were an impetus for oral discussion about literacy. The range of the duration of oral discussion behaviors was from three seconds to 12 seconds, with a median of seven seconds.

One interesting result was the number of oral discussion incidents by girls compared to the boys: 153 to 83. When one carefully examines this, it is important to note that the female five year old group has 114 behaviors and that the four year old male group ranks the second most frequent at 54 instances. This may correspond with the next literacy behavior called physical manipulation. In the analysis of this behavior, it was also noted that the five year old females were participating in the second highest physical manipulations of literacy tools at 86 instances and the four year old males ranked highest with 95 instances. These high numbers of physical manipulation may be one reason that oral discussion was a frequent behavior. The more a young child touches and explores, the more it may be desirable to discuss various aspects of literacy. Also noted is the high number of paired literacy episodes which occurred. This pairing between peers and this

sharing and exchanging of ideas and comments may be another reason oral discussion is so frequent.

Physical Handling or Manipulation

The last behavior of literacy behaviors was also included by the researcher. This was identified as any physical touching, manipulating or handling of literacy materials and tools. This was added to the literacy behaviors category, again because the children demonstrated a significant number of instances of physical manipulation. Every age group and child demonstrated this behavior. Renee (3.2 years) would repeatedly flip through blank paper pads. Albert (4.6 years) would open and close envelopes and files and examine in detail papers and booklets. Henry (5.2 years) would organize and sort books into piles by size or shape. This touching and handling was the most frequent of all the literacy behaviors. Table 32 outlines the frequency of physical manipulation behaviors by age group and gender.

Table 32
Frequency of Physical Handling or Manipulation by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	28	11	39
4 year olds	94	62	156
5 year olds	35	86	121
Total	**157**	**159**	**316**

Physical manipulation accounted for 317 of the 1023 literacy frames, or 30.89%. Both the three and four year old males demonstrated more incidents of physical handling. The five year old females demonstrated more incidents of physical handling than the five year old males. The novelty of the literacy materials may be one reason that physical manipulation was a frequent literacy behavior. This may have made using literacy tools a new experience and the children may have needed time to become familiar with the tools. The second reason may have been the amount of time provided for symbolic play at the

daycare. The staff stated that although the room was often open, interest was not always high. This may have been due to the fact that standard themes were planned for such as a doctor's office or a home theme and not often rotated. It may also be that if literacy materials were placed in the dramatic play area previous to the study, the frequency of physical manipulation would be consequently lower. Children with more experience with literacy materials may not demonstrate as many physical manipulation behaviors. The range of incidents of physical manipulation was from six seconds to 139 seconds. The median was 113 seconds.

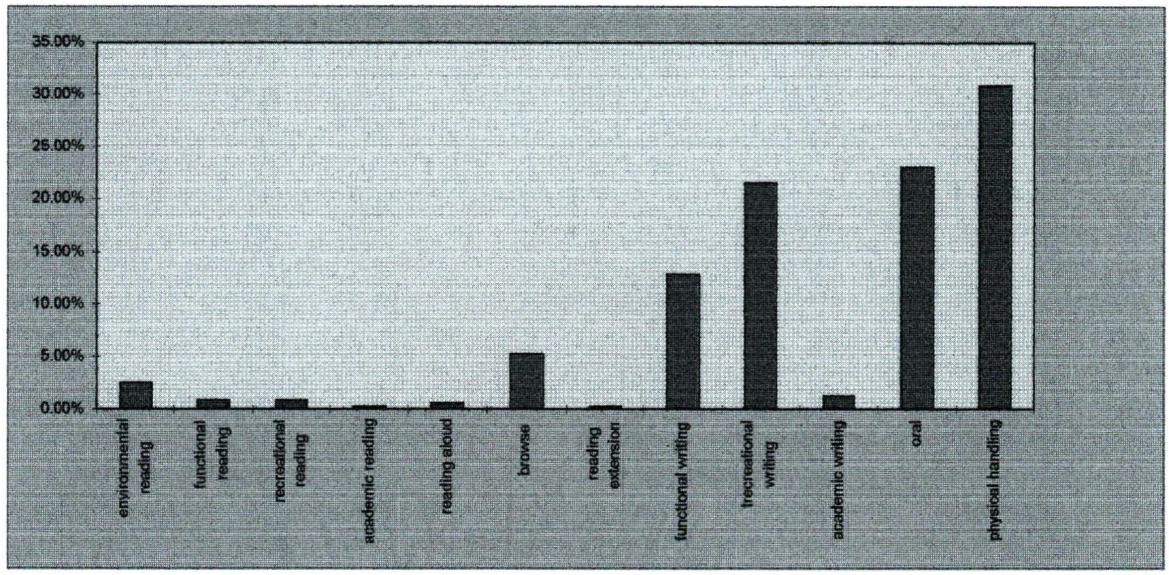
Summary of Literacy Behaviors

The category of literacy behaviors was developed by Stone and Christie (1996) in a four week study of kindergarten to first grade. A total of 163 instances of literacy behavior was identified, 54 being the kindergarten efforts. In this study, the researcher added two categories: (a) oral discussion, and (b) physical manipulation. Of the total 1023 literacy behaviors recorded, physical manipulation was the highest frequency at 317, oral discourse was next with 236 instances and the third was recreational writing with 221 instances. The use of Stone and Christie's (1996) behaviors was useful in analyzing the preschool child's literacy themed symbolic play episodes and helped make clear the impact of the addition of literacy tools in the dramatic play area. Children did behave as literate members of a community (Vygotsky, 1978) and did demonstrate developing literacy knowledge and skills as suggested by Morrow and Rand (1991). In this study, the five year old females demonstrated the highest frequency of literacy behavior incidents in this age group (see Appendix I). The four year old males demonstrated the highest frequency of literacy behaviors in this age group. The three year old males demonstrated the highest frequency of literacy behaviors; however, the number of three year old children in this study was small. Overall, the five year old children demonstrated the highest frequency of literacy behaviors, followed by the four year olds. It should be noted that in analyzing some of the literacy behaviors, there was some difficulty differentiating amongst categories. For example, functional reading, recreational reading and browsing were similar in many ways and the distinctions between these categories were sometimes difficult to determine. This can also be said about functional writing and recreational writing. The intent or purpose demonstrated by the child was sometimes difficult to determine. Recreational, functional and academic reading were not frequent literacy behaviors. Perhaps this low incidence reflects the possible low experience with books for the population of this study. Inter-rater reliability was calculated for duration of literacy behavior and was found to be 84%

agreement. Table 33 provides a bar graph showing relative proportion of literacy behaviors.

Table 33

Bar Graph of Literacy Behavior Proportions



The bar graph illustrates that physical manipulation was the most common literacy behavior in this study. The second most common was oral discussion. The third most common literacy behavior was recreational writing.

Roles

The last category to be analyzed was that of roles. Each of the 1023 frames were coded for role type. The roles were adapted from Neuman and Roskos (1991, 1993), Vukelich (1993) and Stone and Christie (1996). Neuman and Roskos (1993) investigated the behaviors of adults involved in three and four year olds literacy themed symbolic play. They also investigated the literacy efforts of four and five year olds in preschool settings (Neuman & Roskos, 1991). Vukelich (1993) examined the literacy themed symbolic play efforts of kindergarten children. Finally, Store and Christie (1996) observed the literacy behaviors of kindergarten to second graders in a multi-age classroom. Combined, these studies generated 15 possible roles. The researcher combined and adapted these roles and retained 13 roles from the possible 15. One role was added by the researcher, blocker, and this produced a total of 14 role types. The researcher began analyzing the data and two roles were quickly deleted from the categories. The first was designator, where a child

inquires, defines, writes, or questions an aspect of literacy. The second was observer where the child watches or observes peers. These two roles were constantly being demonstrated by each child These role titles were actual behaviors presented in every role and therefore were not considered as separate role types, but as behaviors inherent in every role. The children would continually weave these behaviors in and out of all the roles and were not single roles, but continual actions and behaviors. Inter-rater reliability was determined to be 79% agreement. In the following 12 sections, the results of the analysis of role type are reviewed and discussed.

Model

A child who demonstrates or imitates a literacy event while peers observe is modeling. Frank (4.7 years) would show Tyler (4.9 years) how to open large envelopes, stuff paper inside and secure the envelope with the string enclosure. Table 34 provides the frequency of model as a role by age group and gender.

Table 34
Frequency of Model Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	1	3	4
5 year olds	0	8	8
Total	**1**	**11**	**12**

Stone and Christie (1996) identified modeling a role type and found that 17 of the 43 literacy frames yielded modeling. This was 39.53% of the total roles. In this study, 12 incidents out of 1023 resulted in 1.17% of modeling roles. There were zero incidents of the model role with the three year old age group. The four year old females demonstrated more incidents of the role of model than four year old males. The five year old males demonstrate no incidents of the role of model compared to the five year old females who demonstrated eight incidents. The lower frequency of modeling in this study may be due to the fact that children need to become familiar with literacy routines and peer response. If a

child is uncertain of how a peer may react or is uncertain of how to actually use literacy tools, the role of modeling may not be a comfortable or familiar one. Vukelich (1993) suggests that literacy enriched environments do increase the literacy activities between peers with the young child. A possible reason that modeling may not have been a significant role type is the amount of time children had been exposed to the literacy materials. It may be that the preschool children did have the necessary skills and knowledge, but the time period of observations was too short; therefore, a longer period of observation would have perhaps enabled the children to demonstrate these skills and knowledge. The range of role type duration was from 10 seconds to 25 seconds with a median of 16 seconds. Another point worth considering is that the young children were constantly observing each other and although no 'modeling' behavior was being demonstrated, the children were aware of actions, behaviors, vocabulary and expectations of peers. The researcher noted that as time progressed in the study, literacy play themes and literacy vocabulary increased. This may have occurred because the young children were constantly observing, imitating and modeling, but not necessarily at one time in one role type. This seemed to be a constant stream in the play of the young children.

Inviter

Lisa (5.0 years) and Karla (4.8 years) are seated next to each other at the table writing in booklets or on paper. They are discussing the color and size of the paper they are using. Lisa asks Karla if she wants to work in the office with her. They can be 'workers.' Karla agrees and says she has a lot of work to do. Both continue writing and talking together. This is an example of the inviter role outlined by Stone and Christie (1996). The inviter role is determined by one peer inviting a response from another. Table 35 presents the frequency of this role by age group and gender.

Table 35

Frequency of Inviter Role by Age Group and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	3	0	3
4 year olds	16	12	28
5 year olds	3	27	30
Total	**22**	**39**	**61**

In this study, 61 episodes, or 5.96% of inviter were analyzed out of 1023 literacy frames. Stone and Christie (1996) found that kindergarten children participated in the inviting role in 17 out of 43 observed literacy frames, or 39.53%. The results of their study indicate that the older children were more likely to invite a response from a peer. The three year old males demonstrated more incidents of the inviter role than the three year old females. The four year old males demonstrated more incidents of inviter role than the four year old females. The five year old females demonstrated more incidents of inviter role than the five year old males. This may be due, in part, to more developed and sophisticated play skills or an increased knowledge of literacy experience, and thus confidence to include others. This coincides with Parten's (1932) study that older children often demonstrated paired or group play. If this is the case, then the older children would be more likely to invite peers to join them or seek a response in paired or group play. This role was the third most frequent of the study and may reflect the social nature of literacy and play (Roskos, 1988). Although it was the third most frequent role, when compared to player and director, it was a relatively low frequency role type. This may be because children were focusing on the materials and routines of literacy. The most frequent social category in this study was parallel play and this type of play does not include responses and invitations from peers. It may be that the young children were, again, focused on the novelty of the experience. The range of this role was from 10 seconds to 28 seconds with a median of 19 seconds. The three year old males demonstrated the majority of incidents in the inviter role. The four year old males demonstrated the majority of incidents for this age group. The five year old females demonstrated the majority of inviter role incidents.

Coach

Coach is a role type from both Vukelich (1993) and Neuman and Roskos (1991). The role of coach is identified as one where a child assists and shares with another child literacy skills, support and knowledge. Tyler (4.9 years) stood at the small table with Henry (5.2 years), both writing and flipping through books. Tyler folded his papers and told Henry how to fold them and how to put them in the envelope. Tyler first demonstrated and then watched Henry carefully, providing verbal praise and physical assistance. Table 36 presents the frequency of the coach role distributed across the age groups and gender.

Table 36

Frequency of Coach Role by Age Group and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	2	2	4
5 year olds	1	12	13
Total	**3**	**14**	**17**

The results of the analysis for coach role produced 17 out of 1023 incidents, or 1.66%. It is interesting to note the increased frequency of coach in relation to age. The three year old group demonstrated no coaching role episodes and the four year olds, four episodes. The five year old children participated in 13 out of 17 demonstrations. There were no three year olds who demonstrated the coach role. Both the four year old males and females each demonstrated two incidents of coach role. The five year old females demonstrated more incidents of the coach role than the five year old males. This high number of females participating in the coach role is similar to a high number of females participating in the inviter role. Again, this may be due to a higher level of social expertise and knowledge of literacy. This high number of five year old participants may be related to social expertise as discussed by Parten (1932). It may also be linked to possible higher levels of cognitive skills. Bruner (1953) states that cognitive skills are affected positively when young children engage in play. Perhaps the five year olds were more familiar with some of the materials and routines and so felt comfortable or able to coach others. This role description and the behaviors demonstrated by the children mirrored the results of Neuman and Roskos (1991) who outline the behavior of coach in their study. The range of this role was 29 seconds to 139 seconds, with a median of 61 seconds. The females participated in the role of coach more often than the males.

Director

Peter (4.1 years) was browsing and writing at the table. Mike (3.3 years) was also busy writing. Peter declared that he was the bank and Mike had to give him some of his

money. Mike concurred and handed him some of his plastic coins. In this scenario, Peter is acting as a director. Table 37 provides the frequency of director roles exhibited by each age group and gender.

Table 37
Frequency of the Director Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	3	0	3
4 year olds	29	17	46
5 year olds	7	69	76
Total	**39**	**86**	**125**

This role resulted in 125 out of 1023 instances, or 12.22%. Director was the second most frequent role type demonstrated by the children in this study. The three year old males demonstrated more director role incidents than three year old females. The four year old males demonstrated more director role than four year old females. The five year old females demonstrated a much higher incidents of director role than the five year old males. This may be explained by the five year old females possible increased knowledge of literacy, social skills and play skills. The director role may have enabled the five year old females to have some control over the literacy materials, peers and the play scenario. Stone and Christie (1996) found that the kindergarten children exhibited two director roles out of 43 instances, or 4.65%. This figure is lower than the results of this study. One possible reason for this difference may be the need for the preschool children to control their interactions with peers and the literacy tools. Because the tools and routines were unfamiliar and perhaps desirable as objects to play with and explore, the young children may have felt a need to direct others to gain access of materials or control of interactions. The increase in frequency in relation to age is supported by Parten (1932) who suggests older children participate in more complex and socially interactive contexts. This may then explain the five year old group's higher frequency of director than the three and four year old groups. The older child may interact more often with peers and thus the role of director may be a useful role when playing with a peer or in a group to explore issues of

power control, friendship and appropriate behavior. The range of this role was 39 seconds to 134 seconds with a median of 29 seconds. The three year old males participated in the majority of director incidents for this age group. The four year old males participated in the majority of director incidents for this age group. The five year old females participated in the majority of director incidents for this age group. The females participated in twice as many incidents of director as males.

Player

Player is defined as a role where a child pretends and participates with peers. This role was adapted from Neuman and Roskos (1993) who observed adults assisting three and four year olds involved in literacy-based play. The adult role included helping, inviting, offering, and talking with the children. This role was adapted as a child role and used in the analysis of role types. This role type was the most frequent of all age groups in this study. Renee (3.2 years) wrote, using crayons, various lines and markings on a paper and gave them to Parker (4.10 years). He sat beside her and browsed through booklets and added 'sticky notes' to some of the pages. He commented on how they worked hard at the office and she smiled and continued to write. Tom (5.6 years) and Jennifer (5.3 years) decided to be brother and sister and had to work hard to get all their work done if they were going to be able to go to a wedding. They wrote and discussed this theme as they played together. Table 38 provides an overview of the frequency of the player role across age groups and gender.

Table 38
Frequency of Player Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	61	16	77
4 year olds	169	118	287
5 year olds	66	265	331
Total	**296**	**399**	**695**

The analysis of roles resulted in 695 out of 1023 literacy frames, or 67.94%. The high frequency of this role across all age groups may be explained because of the role type itself. The three year old males demonstrated more incidents of player role than the three year old females. The four year old males demonstrated more incidents of player role than the four year old females. The five year old females demonstrated more incidents of the player role than the five year old males. This high frequency of the five year old females involved in the player role may again be linked to the five year old females' abilities and possibly interests in the literacy materials and play scenario. This role is one that enables a child to interact with peers, or materials, and covers all four social contexts. A player can 'play' with literacy independently or with peers. This role provided the child with a way of doing one or both. The frequency increased with age and this again may be due possibly to the level of social expertise by the older children and possible increased literacy knowledge and skills. This role may also have been one that allowed a child to move from one social context to another. For example, Shona (5.4 years) would read and share money with Joselyn (5.6 years) and then would sit by herself and read or browse through the booklets. Several minutes later, she would then join two other peers and discuss what kind of animal she was and would make animal noises. The role of player may have enabled smooth transition from one social context to another and one literacy behavior to another.

Garvey and Berndt (1977) offer four role types as being common in symbolic play: (a) functional roles, (b) relational roles, (c) character roles, and (d) peripheral roles. The player may be seen as a functional role in that it enables the child to assume a role based on an activity or object. If the young child finds literacy tools unfamiliar, he or she may choose the role as player to explore and play with the objects or activity. Vukelich (1993) states that when any child assumes a role, the child can address his or her own personal agenda. This agenda may include social issues, emotional issues and literacy issues. Perhaps the role of player best provided the child with an opportunity to address this agenda. The range of this role was 10 seconds to 299 seconds, and the median was 161 seconds. The duration of this role was longer when compared to the duration of other roles. This longer time span may be due to the novelty of the materials and possibly the children's desire to explore the materials. The three year old males demonstrated the majority of the player role in this age group. The four year old males demonstrated the majority of the player role for this age group and the five year old females demonstrated the majority of the player role for this group.

Negotiator

Negotiator was identified by Vukelich (1993) and is defined as a child's efforts to compromise or agree with an aspect of the literacy themed play. Shona (5.4 years) grabbed Tyler's (4.9 years) pad of paper and began to leaf through it and write on it. Tyler calmly requested it returned four times when Shona offered it to Joselyn (5.6 years). Tyler promptly grabbed Shona's booklet and stared at her, holding the booklet away from both her and the table. Joselyn then took his booklet and stated that if he gave Shona her booklet, she would return the paper. Both agreed and this was done quickly. Table 39 provides and overview of the frequency of the negotiator role by age group and gender.

Table 39
Frequency of Negotiator Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	3	2	5
5 year olds	0	6	6
Total	**3**	**8**	**11**

In this study, there were 11 out of 1023 instances, or 1.08%. There were no incidents of negotiator role for the three year olds. The four year old males demonstrated more incidents of negotiator role than the four year old females. The five year old females demonstrated more incidents than the five year old males. This role of negotiator may be a more difficult one for young children as their perspectives and social expertise are again limited (Parten, 1932). This type of negotiating role was most common with the four and five year old population. The range of negotiator was from 49 seconds to 61 seconds with a median of 58 seconds. Both male and female three year olds did not demonstrate any incidents of the negotiator role. The three year old males demonstrated the majority of incidents for this age group. The five year old females demonstrated the majority of instances for this age group.

Affirmer

This role type is defined as one where a child supports and encourages in a positive way the efforts of others. This role is based on Stone and Christie (1996) who identified no instances of the affirmer role. Karla (4.8 years) was writing and drawing beside Jamie (4.2 years). She offered to draw a bow for Jamie. As Jamie was writing, she said: "OK, I'll watch now." Jamie carefully watched Karla draw the bowl, smiled and said: "That's good." The frequency of this role is listed in Table 40.

Table 40
Frequency of Affirmer Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	3	1	4
5 year olds	0	7	7
Total	**3**	**8**	**11**

This study identified 11 affirmer role episodes out of a possible 1023 role types, or 1.08%. No three year olds demonstrated the affirmer role in this study. The four year old males demonstrated more incidents of the affirmer role than the four year old females. The five year old females demonstrated more incidents of the affirmer role than the five year old males. The five year old children demonstrated the most frequent incidence of this role. Affirming may be a skill that is linked to more developed types of play, such as paired or group play, and so it would be expected that this role would increase by age group. Connolly (1984), Johnson and Ershler (1981) and Rubin and Krasnor (1980) suggest that interaction with peers during symbolic play increases with age. Affirming involves two peers interacting with one peer positively supporting or acknowledging. Fenson and Ramsay (1980) and Nicholich (1977) have reported that children base their play behaviors on themselves initially and as they age look to peers as a reference of behaviors. The three year group's results (based solely on three children) may represent the lower interaction and

more self-focused behavior. The four and five year old groups may reflect the beginnings of interacting with peers as a reference for behaviors. Stone and Christie (1996) noted in their study no incidence of affirming. This study had more affirmer role instances and it could be attributed to the length of time the children had been going to the daycare together. Many of the children had gone to the daycare for two or three years together so this may have created a positive relationship and so the affirming role may be a 'spin off' from the relationships. The range of the affirmer role was two seconds to eight seconds with a median of five seconds. The three year old group did not demonstrate the affirmer role. The four year old males demonstrated the majority of affirmer role incidents for this age group. The five year old females demonstrated the majority of affirmer role incidents for this age group.

Contradictor

Contradictor is defined as a role where a child notifies a peer that mistakes have occurred regarding literacy or the play scenario. This role is different from blocker in that it attempts to correct, not necessarily stop, the efforts of a peer. Jennifer (5.3 years) was writing a sign about how much the shoes in the shoe store cost. Frank (4.7 years) began to write a sign about how much the shoes in the shoe store cost. Jennifer watched him carefully and then stated: "Hey, that's not a number, it's scribbling." This example is one of a contradictor role. Table 41 provides the frequency of contradictor as a role by age group and gender.

Table 41
Frequency of Contradictor Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	2	2	4
5 year olds	0	8	8
Total	**3**	**10**	**13**

Out of the 1023 identified roles, 13 out of 1023, or 1.27% comprised contradictor. Only one three year old male participated in the contradictor role in this age group. Both genders in the four year old age group participated evenly in this role. The five year old females demonstrated the majority of the contradictor role incidents in this age group. This high incidence of the five year old females demonstrating the contradictor role may be due to the high level of participation in the player role. Because the five year old females were most often involved with peers, more opportunity for contradicting, affirming and blocking may arise. This role was demonstrated most frequently by the five year old group in this study and this may be because of the number of times they interacted in a play episode with peers. The five year old group participated in 514 instances of parallel, paired and group play. The four year old group participated in 334 instances of parallel, paired and group, followed by the three year olds with 69. The five year old group participated in a higher number of play episodes that possibly provided more opportunity for peers to contradict each other. Stone and Christie (1996) found no results in the contradicting role type. This study may have had more instances because of the children being so familiar with each other. The children in Stone and Christie's study had been in the same class for eight months, so possibly were not as comfortable or familiar with peers as the children in this study. The range of this role type is 3 seconds to 15 seconds, with an eight second median.

Blocker

Blocker was one role that was provided by the researcher. This entails a child attempting to stop, interrupt or ignore the efforts of a peer, either verbally or physically. Joselyn (5.6 years) and Shona (5.4 years) were playing grocery store. Joselyn was the cashier and Shona the customer. Shona picked up money off the table near Joselyn's papers. Joselyn said: "No, don't touch that!" and handed her a slip of paper as she grabbed back the money. Shona threw the paper on the floor. Joselyn asked: "Aren't you going to keep this?" and picked up the paper. Shona yelled: "I give you money, you don't just keep it all!" Table 42 presents the frequency of blocker by age group and gender.

Table 42

Frequency of Blocker Role by Age Group and Gender

(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	9	9	18
5 year olds	6	17	23
Total	**16**	**26**	**42**

This example of blocking was identified 42 out of the 1023 frames, or 4.12%. The three year old males demonstrated one incident of the block role and the females no incidents of blocker role. Both the four year old males and females each demonstrated nine incidents of the blocker role. The five year old females demonstrated more incidents of the blocker role than the five year old males. This higher number of incidents of the blocker role for the five year old females may be due to the higher level of participation. The four year old male and females demonstrated the same number of incidents and this perhaps may be due to the children's interest in the literacy materials and routines and desire to possibly control these materials and their peers. This role may also assist a child in preventing peers from interrupting or controlling their explorations and efforts. The blocker role increased with age. The increase of blocker role in relation to age may be a reflection of the increased social interaction by age group. It also may reflect a lack of play skill. If a five year old child is seen as having increased social skills and play strategies, one could say that it would be logical for the three year old group to experience increased blocking incidences. The blocking roles in this study were often centered on issues of ownership, protocol, proper usage and possession of literacy materials and routines. Perhaps because the four and five year olds participated in more incidents of literacy play, this increased the opportunity for conflict or blocking to arise. This may explain why the older age group participated in blocking when it was expected that the younger children who were less verbal would participate more often in this role. The role of blocker was similar to contradictor; however, this role was different because the children would stop a peer physically or verbally with the intent to interact with the peer. The range of this role was 11

seconds to 15 seconds with a median of 13 seconds. The possible brevity of duration of this role may be due to the way the young child blocked a peer. The verbal or physical action demonstrated was a short one.

Facilitator

The role is one where a child encourages and is concerned for others and enhances the play or literacy task. Joselyn (5.6 years) was playing bank and was writing on cheques and holding some plastic money. Stewart (3.0 years) was writing beside her and picking up one small coin, said: "Here, Stewart, you can have some." and handed him more coins. Table 43 provides details on the frequency of this role by age group and gender.

Table 43
Frequency of Facilitator Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	1	0	1
4 year olds	0	3	3
5 year olds	2	9	11
Total	**3**	**12**	**15**

This example of facilitator was demonstrated 15 out of 1023 instances, or 1.47%. The three year old males demonstrated the majority of facilitator role incidents in this age group. The four year old females demonstrated the majority of facilitator role incidents in this age group. The five year old females demonstrated the majority of facilitator roles incidents in this age group. The role of facilitator was derived from the work of Vukilich (1993) who suggested young children do facilitate each other's literacy efforts and Neuman and Roskos (1993) who listed facilitating as a behavior adults use when participating and assisting the play of young children. This type of role may not be as predominate in the literacy themed symbolic play episodes of the young child as it may be a socially developed skill common to older children, and the increase of the frequency by age in this

study may support this. The range of this role was seven seconds to 11 seconds with a median of five seconds.

Regulator

Regulator was a role derived from Neuman and Roskos (1993). This role includes a child who attempts to police or manage a peer's efforts. Peter (4.1 years) was reading and writing at the small table. He carefully observed Tyler (4.9 years) chewing his pencil. Peter yelled: "Don't chew that!" and grabbed the pencil from his hand. Table 44 provides details of the frequency of this role by age group and gender.

Table 44
Frequency of Regulator Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	0	0	0
4 year olds	7	2	9
5 year olds	0	2	2
Total	**7**	**4**	**11**

This example of facilitator was demonstrated 15 out of 1023 instances, or 1.47%. The three year olds in this study did not demonstrate the regulator role. The four year old males demonstrated the majority of regulator role incidents for this age group. The five year old females demonstrated the majority of regulator role incidents for this age group. The higher incidents of the four year old males demonstrating the regulator role may possibly be explained by the four year old males need to deal with the five year old peers. The four year old male may have used this role as a way to cope with the more sophisticated interactions of the five year olds. In this study, the children did not demonstrate a high frequency of this role. This may be due at least in part to the large number of parallel play episodes in the study. Children played most often beside each other, focusing on their own efforts and not those of others. Also, if the literacy materials and routines were unfamiliar

when interacting with peers, the children may not have the knowledge or expertise to regulate others.

Experimenter

The role of experimenter was derived from the Neuman and Roskos (1993) adult assisting roles. For example, Albert (4.2 years) folded pieces of paper and created a costume to wear. This role is identified as one where a child utilizes props or play scenarios in unique ways. This role is similar to that of player in that the child is using roles and tools, but is doing so in a unique or creative way with the intent of experimenting, and not just exploring to learn about basic properties or to become familiar with tools or peers. Table 45 provides an overview of the frequency of this role by age group and gender.

Table 45
Frequency of Experimenter Role by Age Group and Gender
(See Table 2 for total number of males and females by age)

	Male	Female	Total
3 year olds	2	0	2
4 year olds	2	3	5
5 year olds	1	2	3
Total	**5**	**5**	**10**

This role was demonstrated 10 out of 1023 incidents, or 9.78%. The three year old males demonstrated more incidents of the experimenter role than the three year old females. The four year old females demonstrated more incidents of the experimenter role than the four year old males. The five year old females demonstrated more incidents than the five year old males. The five year old females demonstrated a low number of incidents of this role type. Perhaps the females were not confident in their abilities to experiment in front of peers or the time of the play session was 30 to 45 minutes and they needed more time. Another possible reason this frequency of role type was low and the lowest role type in the study was that the children may not have been familiar enough with the materials to use

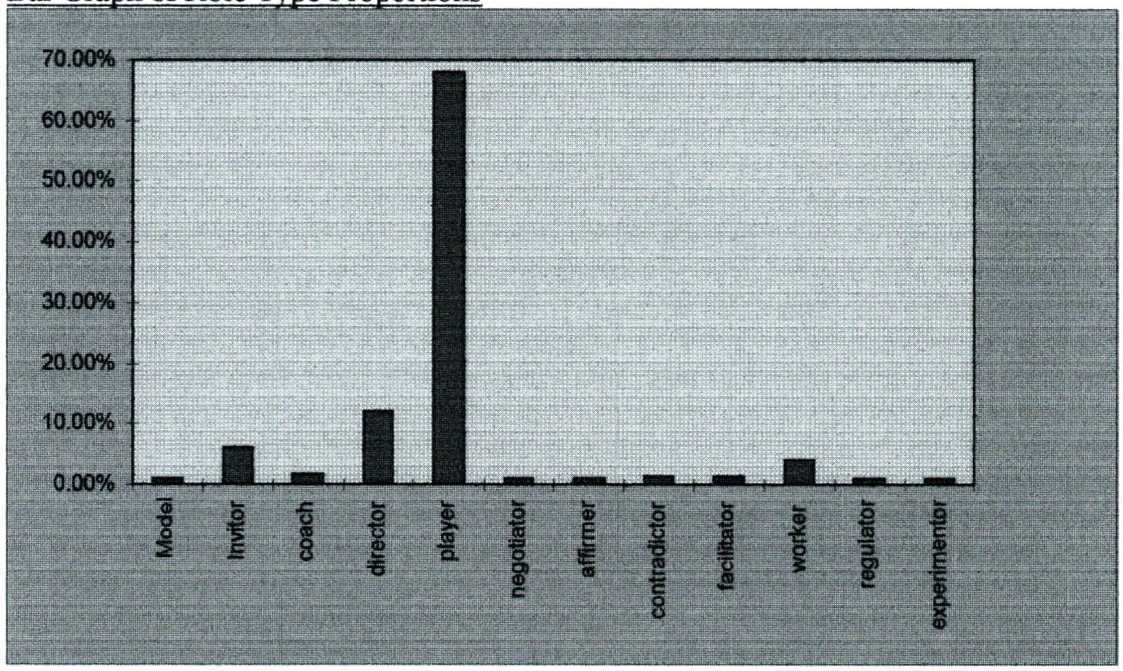
them creatively. The children's focus may have been on becoming familiar with the materials themselves and using them creatively or in unique ways for a purpose, not an interest.

Summary of Role Types

The children showed the highest frequency of participation in the player role and this was true across all three age groups. The second most frequent role was director, followed by inviter. (Appendix K provides an overview of role type frequencies.) It became evident that the children assumed these roles to explore the literacy materials and participate in literacy events and scenarios. The children used various role types of accommodate their interest and abilities. Role types were used to move from one social context to another. Roles were used to deal with issues concerning relationships such as friendship, inclusion or exclusion, manners, and control. Role types were also used to deal with issues concerning literacy tools: ownership, possession, how to use them, standards and knowledge of how to use them and with whom to use them. And finally, the roles were used to learn about literacy, such as reading and writing. Children continually observed and imitated peers. Children were learning about literacy specific vocabulary, concepts and skills. This concurs with the results of Neuman and Roskos (1992). They found in conducting a nine month study with three to five year olds that a dramatic play environment that was redesigned with a literacy focus did increase duration, frequency and complexity of literacy play. When the child assumed a role, he or she was demonstrating interest and ability to learn about play and literacy. Inter-rater reliability for role type was determined to be 79% agreement. The five year old females demonstrated the majority of incidents in most role categories, followed by the four year old males. This may be particular to this study sample and may not be representative of the preschool age population. The low number of three year old incidents in the roles may be due to the low number of three year olds in the study. The role type with the longest duration was player, followed by director. Table 46 provides a bar graph showing relative proportion of role types. Inter-rater reliability for duration was calculated at 80%. The reason for the lesser agreement in inter-rater reliability for this category may be due to the similarity between roles. Roles types like blocker and contradictor were very similar. Because some of the roles shared characteristics, this may have made identifying role types more difficult and therefore the inter-rater reliability was not as high.

Table 46

Bar Graph of Role Type Proportions



The bar graph illustrates that in this study the player role was the most common. The second most common role was director. The third most common role was inviter. These demonstrated roles may suggest that the children were most interested in using the materials and interacting with peers possibly to become more familiar with the novelty of both the literacy materials and play scenarios. The least common role was experimenter. This low frequency may be explained by the novelty of the materials and the novelty of literacy materials in the dramatic play setting.

Interview Results

Upon the conclusion of the video taping sessions, the researcher briefly interviewed 12 out of the 16 children in the study (four were absent the day of the interviews). The children attended the daycare on a drop-in basis and because it was summer, many of the children attended sporadically. The researcher was unable to again meet with the four absent children. The children were each asked five questions, one child at a time. (A list of interview questions are available in Appendix E.) The researcher would invite each child to come to the dramatic play area to talk about what happened. The researcher invited each child by going to the child who was already involved in an activity. The researcher was open to the fact that not every child may have wanted to participate in the interview; however, all 12 children did agree.

What was your favorite toy or material?

Only two three year olds were interviewed and their response included playing with the dolls and crayons and the money. The six four year olds interviewed suggested the booklets, papers, sticky notes, money and boxes. The six five year olds suggested envelopes, papers, pens and shoes.

What did you like about playing in the housekeeping?

The three year olds restated what literacy tools they enjoyed using. The four and five year olds talked about using specific literacy tools (pencils, shoes) and playing out specific themes such as the shoe store, or playing office. Two children talked about being a police officer or a worker.

What would you want me to bring that I didn't bring and what would you like me to bring more of?

The three year olds did not respond to this question. The four and five year olds suggested stuffed animals, a calculator, more money, papers and crayons and one child suggested more books.

What didn't you like about playing in the housekeeping center?

Only one four year old child responded to this with the comment: "People whined about what I had." Three five year olds stated: "Nothing, I liked it."

This interview process was one way to bring a small token of closure to the researcher's presence and the change in time and format of the dramatic play sessions. The researcher expected most of the indicated responses; however, the researcher was surprised to note that stuffed animals and a calculator as desired literacy tools. These would be interesting to provide and subsequently observe how the children used these. All materials were left for the children to continue using. The responses were positive and most children interviewed did state preferences of literacy tools and play scenarios.

Summary

The addition of literacy materials into the dramatic play area of a daycare setting did result in the use of literacy materials in various social contexts, with various behaviors and roles being exhibited by the three, four and five year old children. The research questions are addressed below in summarizing the results of the data.

1. What specific roles and behaviors are demonstrated by three to five year old children in this study when engaged in literacy themed symbolic play episodes?

The three year old children participated most often in parallel play when involved in dramatic play. This age group does reflect Parten's (1932) categorization of the relationship between age and social play, with younger children demonstrating more independent types of play. In this study, the three year olds demonstrated all forms of literacy use with the exception of memory supports. The literacy behaviors demonstrated by the three year olds included all literacy behaviors with the exception of writing academically. The final category, role type, resulted in demonstrations of seven out of 12 role types. The three year olds did not demonstrate: regulator, affirmer, negotiator, coach or model. This non-use of the five role types may be because of typical social skills and play skills of this age group; however, the low number of three year olds in this study makes any conclusions tentative and in need of confirmation using a larger sample.

The four year old children participated in paired play when involved with peers. The four year olds demonstrated all uses of literacy except memory support. They demonstrated all literacy behaviors and all role types. The males in the four year old group demonstrated, for the most part, more literacy roles and behaviors than the four year old females.

It was found that the five year old group in this study also participated in parallel play. This may not have been predicted using Parten's (1932) social categories. It may have been more likely for paired or group play to be exhibited. This relatively large number of parallel incidents may be attributed to the novelty of the materials, routines and the integration of play and literacy. The male and female five year olds in this study demonstrated all of the literacy uses except memory support. The females in this age group demonstrated a much higher number of incidents in most role and behavior categories than the five year old males. The demonstration of all role types was reported, with the five year olds most frequently participating in the role of player. The five year old females demonstrated the majority of role types of that age group with a high number of incidents in the model, inviter, coach, director, affirmer and facilitator role. It was also

interesting to note that the females participated in a higher number of incidents in the negotiator, contradictor and blocker roles. It may be possible to link the high level of involvement in these types of roles because the five year old females demonstrated more interaction in the play episodes and so they may have had more opportunity to experience conflict with peers. These types of roles may have assisted the five year old females (and possibly four year old males as they also participated in the majority of these roles for that age group) in interacting and continuing various play scenarios. Although the number of three year olds in the study is low, the males participated in the majority of role types. The role of experimenter was also not common for any age group. It may be that this role was too demanding for this particular population.

2. How do these identified roles and behaviors correspond to the adult and child roles identified by Bessell-Browne (1985), Neuman and Roskos (1993) and Stone and Christie (1996)?

The ten uses of literacy used by Bessell-Browne (1985) were also used to analyze the literacy frames in this study. The children in this study did participate in all the literacy uses except one - memory support. These results were very similar to Bessell-Browne's results which also showed that kindergarten children participated in all the literacy uses and only one incident of memory support.

The behaviors identified by Stone and Christie (1996) were used to analyze the literacy frames. It was reported that these behaviors were exhibited by young children in this study and that although these behaviors were used in observing older school aged children, the behaviors were exhibited and identified using these descriptors. Also, the researcher added two behaviors, oral discussion and physical manipulation. When first analyzing the data, it was evident that the children frequently demonstrated these behaviors throughout the play sessions and it became evident that these behaviors were significant and should be noted. These behaviors are often considered developmentally appropriate for these age groups.

Neuman and Roskos (1993) and Stone and Christie (1996) identified 11 roles. These were combined with three of Vukelich's (1993) roles. The researcher reported that 11 roles were utilized, including one added by the researcher (i.e., blocker). The results presented indicated that three to five year old children do exhibit most of these roles. It was noted that the three year old group did not participate in five roles and this may possibly be attributed to the low number of three year old participants. As Neuman and Roskos (1993) and Stone and Christie (1996) did not observe gender differences in their research, no comparisons can be made with this study.

3. What is the frequency and duration of behaviors and roles in literacy themed symbolic episodes in this study?

The frequency and duration of literacy uses and behaviors were discussed. Solitary play was the most frequent social context for the three year old group. The three year old group participated most often in physical handling as a literacy behavior. The three year olds exhibited using literacy as a source of information most often . The role type most often displayed was player.

The social context, parallel play, was the context most demonstrated by the four year olds. Physical handling was the most frequent literacy use for four year olds and source of information the most popular behavior for four year olds. The role type most demonstrated was also player, followed by director.

The five year old group's results were presented with parallel play as the most popular social context. This age group also demonstrated source of information as most frequent literacy use. The literacy behavior most frequently demonstrated was oral discussion. The five year olds were shown to most often demonstrate the player role, followed also by director.

Inter-rater reliability was reported for each category. Overall, it was noted that the five year old group did participate at a higher frequency in all four categories of analysis. These results agree with Stone and Christie's (1996) research which also found that elementary school children participate in larger amounts of literacy play. Connolly (1984), Johnson and Ershler (1981) and Rubin and Krasnor (1980) suggest that symbolic play is one of the most common types of play from ages one to five. Neuman and Roskos (1990, 1992) suggest the addition of literacy tools as conducive to growth in play and literacy skills. The roles and behaviors identified by Neuman and Roskos (1993) and Stone and Christie (1996) can be utilized successfully in observing younger children. The results of this study suggest that the literacy-play connection is an important one in the young child's emergent literacy efforts. The five year old females demonstrated the majority of incidents in most role and behavior categories, followed by the four year old males. This may be particular to this study sample and may not be representative of the preschool age population. The low number of three year old incidents in the roles and behaviors may be due to the low number of three year olds in the study. The role type with the longest duration was player, followed by director. The literacy behavior with the longest duration was physical handling.

Chapter 5

Summary, Conclusions and Implications

Introduction

The purpose of this study was to investigate the roles and behaviors of three to five year old young children in literacy themed symbolic play. Various literacy tools were added to the dramatic play centre in an urban based daycare and the literacy-play efforts of 16 children were video-taped and observed. The tapes were transcribed and, in combination with observations and interviews of the children, 1023 literacy frames were identified. These frames were analyzed for (a) social context, (b) how children used literacy (c) what literacy behaviors and (d) what roles were demonstrated. The categories for analysis are social context, literacy uses and behaviors, and roles which were adapted from previous research (Bessell-Browne, 1985; Neuman & Roskos, 1993; Parten, 1932; Stone & Christie, 1996). These previous studies investigated the roles and behaviors of children in elementary school (i.e., Kindergarten to Grade 2). This study investigated if these roles and behaviors demonstrated by older children were applicable to preschool children (i.e., three, four and five year olds).

The frequency and duration for each literacy frame was calculated. The results showed that young children do participate in literacy events and that the roles and behaviors exhibited by older children in literacy themed dramatic play may possibly be considered common to the preschool aged child. This chapter presents: (a) a summary of the present study, (b) conclusions of the study and (c) implications for future research.

Summary and Conclusions

Literature Reviewed

The review of the related literature in Chapter 2 illustrated the relationship between symbolic play and emergent literacy. Categories of symbolic play have been

identified by Smilansky (1968), Wolfgang, Mackender and Wolfgang (1981). Development is positively affected by symbolic play (Schrader, 1990; Vygotsky, 1978). Research has identified various skills needed to participate in symbolic play (Garvey, 1986; Rubin, Fein & Vandenberg, 1983). The sequential development of symbolic play was presented. Children progress through various stages which become increasingly complex and prevalent as a child matures in age (Doyle & Connolly, 1989; Garvey, 1974; Pellegrini, 1985). Studies were cited that illustrated how symbolic play positively affects the development of the young child (Bruner, 1983; Christie, 1982; Nourot & Van Hoorn, 1991; Rubin & Maioni, 1975; Singer & Singer, 1985).

Children develop representational skills that are exhibited in both play and literacy efforts (Wolfgang & Sanders, 1981). Research has shown that literacy skills are developed or enhanced by the integration of literacy and play (Christie, 1991; Daiute, 1989, 1990; Dyson, 1990; Pellegrini, DeStefano & Thompson, 1983).

Characteristics of early childhood environments that supported this relationship include materials, prop selection and classroom space and recommendations regarding specific guidelines and features were considered (Field, 1980; Mayfield, 1992; Neuman & Roskos, 1990; Roskos & Vukelich, 1991; Smith & Connolly, 1980). Young children utilize props and interact with peers when involved in literacy themed symbolic play.

The available research focuses on the roles of adults and older children involved in this type of play (Neuman & Roskos, 1991 (a), 1993; Rowe, 1989; Schrader, 1990; Vukelich, 1993). Children were shown to behave as literate individuals who had knowledge, skills and interest in literacy (Bessell-Brown, 1985; Heath, 1982; Stone & Christie, 1996). There were no studies found on how the preschool population demonstrated these literacy skills. The research to date, regarding roles and behaviors, dealt specifically with older children or adults, showing a need for further investigation into the literacy themed symbolic play of the preschool aged child.

Both theory and research identify the significance of the integration of literacy and play and the relationship between symbolic play and the development of emerging literacy (Christie, 1990: Garvey, 1977).

Methodology

The purpose of the study was to identify basic roles, behaviors and literacy uses of children aged three to five in a daycare setting using observation, video recording and interviews. The setting of the study was described as an inner city, full-day program, in a daycare centre. A description of the timetable and physical layout was provided. The

difficulties in obtaining a site were discussed, including the difficulty and ultimate impossibility of completing a pilot study.

The participants in this study were 16 children aged three to five years. There were nine males and seven females. There were three three year olds, seven four year olds and six five year olds. A description of criteria for inclusion and recruitment were presented.

Two types of equipment were used for data collection, including a VHS video tape camera and various literacy props. Details about the type of camera and how props were selected and used by the researcher in various themes were detailed.

Observational procedures were overviewed with a description of the day to day events, sequences and specific routines and details regarding data collection. Data analysis included transcribing transcripts based on the video tapes. Qualitative and quantitative methods were then used to analyze the data. Play frames and literacy frames were used in identifying 1023 literacy frames. Four dimensions were used to analyze the literacy frames, based on the research of Bessell-Browne (1985), Neuman and Roskos (1993) and Stone and Christie (1996): social context, literacy uses, literacy behaviors and role types. Inter-rater reliability was calculated for each of the four dimensions with an early childhood educator.

Limitation of the methodology included: (a) the unfamiliarity and affect the video camera had on the participants, (b) non random subject sample, (c) observer bias, (d) the small number of participants involved in the study, (e) the relatively short duration of the study and the time of year the study, and (f) no baseline knowledge of home literacy or previous literacy experiences of the children.

The methodology used consisted of setting up play centres with a theme by adding various literacy tools and materials. Each week, a new theme was implemented with the addition of new props. Every day, the 30 to 45 minute sessions were video taped. Transcriptions were made for each session. Data was collected over 14 days and each day the researcher would set up the camera and dismantle the camera. The researcher would save any materials from the sessions the children did not want and would tidy the centre before leaving. The researcher attempted to remain independent of the play during the sessions. At the end of the observations, individual children were interviewed regarding what they liked about the literacy materials and additional things they would like the researcher to bring.

Results and Discussion

Results and discussion comprised Chapter 4. Analysis of the transcripts from the video tapes yielded 1023 literacy frames which were further analyzed using four categories. The frequency, duration and inter-rater reliability was reported for each category of analysis. The first category social context was based on Parten's (1932) research. In this category, parallel play was overall the most frequent play context. The majority of three year old males demonstrated paired play and the three year old females demonstrated parallel play. The majority of four year old males and females demonstrated paired play. The majority of both male and female five year olds demonstrated parallel play. A possible explanation for these preferences was the children in this study may have had limited exposure to literacy and so the novelty of the materials and integration of literacy tools in the dramatic play area may have affected the interaction patterns of the children. The children demonstrated a preference for parallel play and this was thought to be due to the novelty of the literacy tools and the literacy context in the dramatic play area. Although no comparison could be made to frequency of social context type prior to the addition of tools, it may be concluded literacy did act as a catalyst for interaction. It seemed that literacy acted as a foundation on which to interact with peers. Children would use interaction with peers as a way to learn about peers and literacy and literacy was used to support peer relationships. The various social context may have provided children with different ways to approach learning about literacy. Duration for each type of social context was calculated. Solitary play ranged from 31 seconds to 328 seconds with a median of 146 seconds. Parallel play ranged from 18 seconds to 139 seconds. Paired play ranged from 18 seconds to 139 seconds with a median of 107 seconds. Group play was reported as having a range from 20 seconds to 160 seconds with a range of 103 seconds.

The way in which the young child utilized literacy was the next category of analysis reported. These literacy uses were based on the research of Bessell-Browne (1985); however, the researcher broadened the definition of one of the literacy uses (source of information) to include exploration, practice and/or repetition as well as using literacy as a way to gain information with peers and literacy. The most frequent literacy use was source of information by all three age groups. This use of literacy may reflect the preschooler's need to explore the many facets of literacy tools and routines. Observed was the way in which children wove familiar themes (camping, office, pets) into discussions about literacy as they actually demonstrated a literacy behavior. It was

observed that materials were initially a focus, then materials and how they were used and finally, the children focused on literacy actions of others. This developed slowly as the children had more exposure to the literacy tools in the dramatic play area. This was reported at 50.15%, or 513 of 1023 literary instances. Possible reasons for source of information being the most frequent literacy use might be due, at least in part, to the novelty of the literacy tools and the children's limited literacy experience. The second and third most frequent literacy use was personal relationships and presentation of information. This use of literacy may reflect the preschoolers need to explore the many facets of literacy tools and routines. Observed was the way in which children wove familiar themes (camping, office, pets) into discussions about literacy as they actually demonstrated a literacy behavior. It was observed that materials were initially a focus, then materials and how they were used and finally, the children focused on literacy actions of others. This developed slowly as the children had more exposure to the literacy tools in the dramatic play area. It may be that children used literacy to first explore the use of materials and then to explore the actions and roles used in literacy. The duration of literacy use ranged from 15 seconds to 291 seconds. It was interesting to note the high number of five year old females and four year old males demonstrating presentation of information and economic/business transaction uses of literacy. Included was a table, providing the range with a median for each literacy use.

The third type of analysis was for literacy behavior. The behaviors used in the analysis were those of Stone and Christie (1996) with the addition of two new categories: physical handling or manipulation of literacy tools and oral discussion about some aspect of literacy. Physical manipulation accounted for 30.99%, or 317 of 1023 literacy frames. Oral discussion was the second most frequent behavior at 23.07%, or 236 of 1023 literacy frames and recreational writing was third at 21.60%, or 221 instances of 1023. Physical manipulation may have been the most common literacy behavior demonstrated because the young children may have had limited experience with the literacy tools, and literacy tools in the dramatic play area may have been an unfamiliar context in which to explore literacy. Both the three year old males and female demonstrated physical manipulation as the most frequent literacy behavior. Both male and female four year olds demonstrated physical manipulation as the most frequent literacy behavior. The five year old males demonstrated physical manipulation as the most frequent literacy behavior. The five year old females demonstrated oral discussion as the most frequent literacy behavior. Children demonstrated that if provided with the opportunity to explore and learn about literacy, they behaved in literate ways, just as older aged children do. This participation in the various literacy behaviors may suggest

that early exposure to literacy materials and opportunity to behave in literate ways is appropriate for the early childhood curriculum. The children often used literacy to create and solve problems with peers about literacy and relationships. Issues of friendship, power, possession of materials, all were explored in the literacy-play episodes. It was interesting to note again that only females participated in academic reading and that five year old females participated most often in recreational reading and browsing. The low incidence of modeling and reading extension behaviors for all age groups was also noteworthy. These behaviors may be challenging for this population and it would be interesting to observe if this was similar for other populations. Finally, oral discussion was most frequent for five year old females and four year old males. It may be that these children were becoming more verbal developmentally and used this skill in learning and playing together in the literacy themed symbolic play episodes. The duration for each behavior was listed. The duration of literacy behavior ranged from three seconds to 242 seconds.

The last set of results presented was role type. These roles were a combination of roles identified in other studies (Neuman & Roskos, 1993; Stone & Christie, 1996; Vukelich, 1993). One role was added: blocker (i.e., a child attempts to block or stop the play or literacy efforts of peers). Two categories were eliminated because they were constant behaviors that were exhibited continually throughout the play sessions. The number of roles identified were 12. Results for each category were presented and included the frequency and duration for each role type. The most popular role type was player with 685 of 1023 instances (63.54%). This role was suggested as being a popular one because it may have enabled the young children to explore the literacy tools most efficiently. The young children would not have had to contend with peer feedback or peer control over their efforts. The second most frequent role was director with 12.22% (123 instances). This was suggested as being a frequent role because this role may have enabled the child to gain access to literacy tools and observe the impact of their actions on literacy routines or play interactions. The third most popular role type was inviter with 5.96%, (61 instances). One reason given in explaining why this was a common role was possibly the children were learning about the details of interaction with peers and literacy. Also noted, the novelty of the literacy-play integration in the dramatic play setting may have increased the need to invite peers into either common or new play scenarios. It may have been that the young children were unfamiliar with the play themes and, therefore, needed to verbally initiate pretense, interaction or role types. These three roles may illustrate the young child's desire to interact and learn about literacy with peers. Discussion and debate about role type, possession of materials,

details about play theme scenarios and roles and regulations were often common topics as the children assumed the various roles. Based on the researcher's observations, it was noted that the constant verbal dialogue, observation of peers and physical manipulation of literacy was often interfaced into the role type the young children assumed. In analyzing the transcripts and reviewing anecdotal observations, it was often noted that when the children assumed a role, it became evident that literacy was used to (a) support the role itself, (b) focus on the details of a role or (c) was separate altogether from the role. An interesting result in observing this particular group of children was the frequent way in which the children would establish that pretense was about to happen or did happen. "I just pretended that...." or "Let's pretend we're going to . . ." were common precursors to the literacy behavior, or specifically in assuming and discussing a role. The preschool child did assume roles that perhaps could be considered self serving. This may suggest that children were focused on learning about the details and complexities of materials, routines and interactions of literacy. These roles perhaps better enabled exploration and opportunity to be actively involved in learning about literacy, play, and ultimately the community and world around them. The duration of this category ranged from two seconds to 299 seconds. The majority of male and female three year olds demonstrated the player role. The majority of male and female four year olds demonstrated the player role. The majority of male and female five year olds demonstrated the player role. The five year old females and four year old males once again demonstrated the highest incidents of many of the roles: inviter, coach, director, contradictor, blocker and regulator. These roles may be related to social skill, play skills and knowledge and interest in literacy.

Implications for Future Research

The results of this study indicate the use of literacy and symbolic play as a combined learning strategy does have merit with preschool aged children. The use of literacy tools did promote specific behaviors and role types with the young children; however, these may be unique to this environment and specific group of children. There may be a need for further research to replicate this type of study with this age group to determine if similar results occurred. Several issues or recommendations could be made, based upon this study, and the demonstrated results.

Differences may be observed with a larger population sample. An increased number of children with a more balanced representation of age may affect the frequency and preferences of social context, literacy use and behaviors and role types. The low

number of three year olds represented in this study may have skewed results; a larger representation of three year olds may have produced different results. Studies by Neuman and Roskos (1993), Stone and Christie (1996), and Vukelich (1993) have reported the roles and behaviors assumed by older children and adults when involved in literacy themed symbolic play episodes. This study's results indicate that these role and behavior categories by three, four and five year old children are exhibited. If literacy play is seen as significant for these age groups, future studies may investigate the behaviors and roles exhibited by children aged two and under.

The subject sample was not considered random, and the difficulty in obtaining access to a site may be a growing consideration in undertaking and completing this type of research. The lack of a pilot study was also a limitation as this did not enable the researcher to determine the effectiveness of the analysis coding procedures.

One criteria for exclusion in the selection of participants was non-English speaking children. The study of English as a second language students or children just learning how to speak English may be an interesting group who may or may not reflect the identified behaviors and roles of English speaking children. One could also investigate cultural influences or differences in the literacy and play connection. This would also be true of children with special needs.

The researcher in this study was not familiar with the children's previous literacy experience or home literacy background. Investigation of the home literacy backgrounds may have provided possible insights into the children's behaviors and preferences. Personal interviews with parents or parents and children, surveys and possible home visits may produce a more accurate scope of the young child's literacy efforts.

In this study, the ratio of males to females was not even. There were more males in this study and this may have affected the results. An even division of males and females in each category may produce different results.

The novelty of the materials may also have affected the results. It would be interesting to provide these materials to the children to use in their homes and then observe how they used them in the dramatic play setting. Also, it would be interesting to observe any differences in the results after providing the literacy tools in other areas of the daycare.

The design of this study enabled the researcher to observe and analyze the efforts of the young children involved in the dramatic play setting. Although this research design provided the researcher with access to behaviors and role types, it may be of benefit to observe these behaviors and roles in the context of an intervention design study. One dimension of the intervention study could be to include play intervention.

The staff could provide play training for the various age groups prior to placement and observation of the use of literacy tools. Observation before intervention, during and after play training may yield very different results. This may affect the type of social contexts demonstrated and may change the frequency and most common role type in the play episodes. A second intervention design could include observation preceding, during and following the inclusion or addition of literacy tools. It might produce differences in frequencies and duration in all four categories of analysis. As children become familiar or comfortable with the literacy tools and develop strategies to use their knowledge and skills with the tools, this may produce increased cooperative, interactive and sophisticated behaviors. A third design consideration could be to redesign the dramatic play environment. Studies by Morrow and Rand (1991) and Neuman and Roskos (1990) examined the effects of the inclusion of literacy tools and physical environmental design, but studies regarding the demonstration of roles and behaviors with an redesigned environment are limited. Observation prior, during and after, might produce results that demonstrate different frequencies and preferences in social context, literacy use and behavior and role type.

In analyzing the categories of role, it became evident that some roles could possibly be combined or integrated. For example, the role of blocker and contradictor could be combined to create one role. Further research studies could consider re-figuring or combining categories such as blocker and contradictor or facilitator and affirmer. This study introduced literacy tools each week, with selection and introduction of the materials based on specific themes. It may be interesting to observe behaviors when specific tool types are introduced every few days or each week, such as writing tools or reading tools. A longer length of time would have produced a larger set of data. A longitudinal study would provide a more stable and broader set of observations to analyze, and therefore, might reflect more accurate conclusions than a shorter study. This, too, may yield varied results.

Investigation of role type and behavior exhibited by preschool children was the main purpose of this study. Perhaps an investigation of interaction between age groups with a focus on what roles were used, what social contexts were favored and what literacy uses produced would provide further understanding of cross-age relations and its place in the literacy play connection.

A final suggestion for future research is to examine results of this type of study using different socio-economic based families. The families of the participants in this study were predominantly low socio-economic single parent families. It may be possible that different family structures and socio-economic conditions would affect results.

Based on this conclusion, it could be recommended that educators in both the preschool and elementary school aged settings respect and acknowledge the various social contexts used in exploring and learning about literacy and provide opportunity and time for literacy themed symbolic play. Educators should be aware of and plan for gender differences in behaviors and role types during literacy themed symbolic play.

Conclusion

This study has shown that preschool children participate in literacy themed symbolic play with specific behaviors and role types. Children did cooperate, interact with peers and exhibit literacy knowledge and skills in all age groups. This group of children had no formal school-type literacy training and yet behaved as literate individuals. The dramatic play area did provide children with the opportunity to not only explore literacy tools and routines, but various literacy and social interactive roles. The roles, behaviors and uses identified by Bessell-Browne (1985), Neuman and Roskos (1993), Stone and Christie (1996), and those added by the researcher were applicable and practical in observing the preschool child involved in literacy themed symbolic play. The results and observations from this and other identified studies (Ferreiro & Teberosky, 1982; Roskos, 1988; Teale & Sulzby, 1986) indicate that literacy learning should not be a focus solely for elementary aged students. Rather, literacy should be a planned part of the early childhood curriculum and one way to best accommodate this is through the integration of literacy with symbolic play. The positive relationship between play and literacy indicates that this integration is an appropriate and beneficial strategy.

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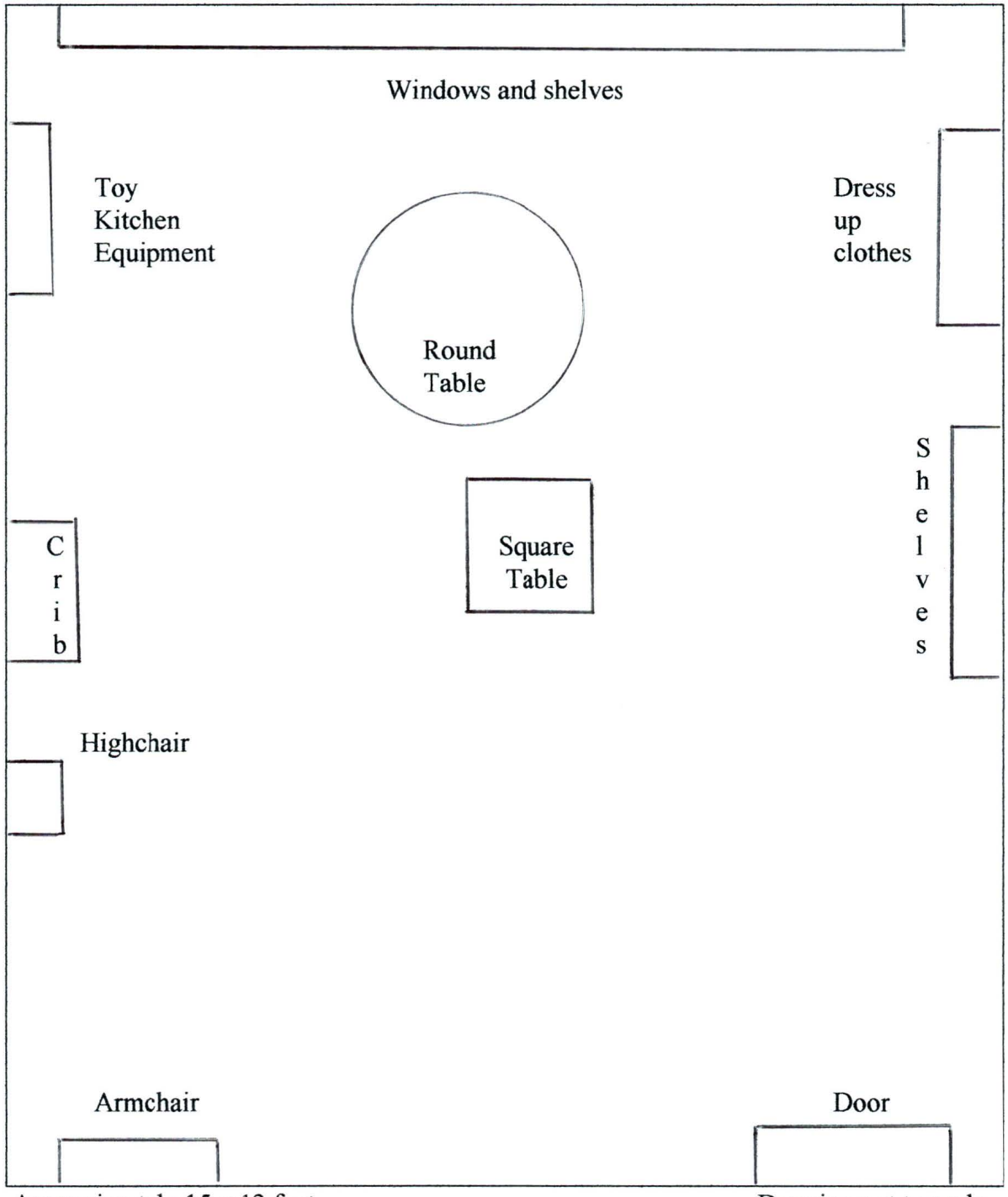
Appendix A

Overview of the Daily Timetable

7:30 A.M.	Centre opens
	Art room and table games room open
8:15 A.M.	Big muscle room opens
9:30 A.M.	Snack
9:45 A.M.	Outdoor activity (go to park or play on adventure playground)
11:30 A.M.	Lunch/Washroom
12:15 P.M.	Table games and books
12:30 P.M.	Nap time - for younger children
	Large muscle room for older children
1:45 P.M.	Table games books and house keeping room
2:00 P.M.	Outdoor activity/or book or table toys
3:00 P.M.	Snack
6:00 P.M.	Daycare closes

Appendix B

Diagram of the Daycare Setting



Approximately 15 x 13 feet

Drawing not to scale.

Appendix C

Letter of Consent

(Form to be signed by parent, student and researcher)

I understand that I am being asked to be in a project that looks at how playing can help in learning about reading and writing. If I agree to be in this project, I know that when I play during centre time, I will be videotaped. This will happen for about eight weeks. I can view the tapes that I am in at any time.

I understand that I don't have to play in the centres if I don't want to. I can stop being in this project at any time and no one will get anyone angry or sad with me. It will not make any difference if I choose to stop. If I feel upset or have any questions, I know I can talk to my daycare teachers or Mrs. Segato about it.

I understand that my name won't be used and anything that happens on the tape or in the play centre will be private.

My teacher or parent(s) can call Mrs. Segato (391-0751) if I have any further questions.

I have been able to ask any questions I need to. I will volunteer to be a part of this project.

_____ _____

Child's Signature Date

_____ _____

Interviewer's Signature Date

_____ _____

Parent(s) Signature Date

(Parent Consent Form for Child to Participate)

Dear Parent(s)/Guardian(s):

My name is Karen Segato and I am presently a teacher at Saseenos Elementary School. I would like to ask your permission for your son or daughter to participate in my research project. I am completing my Master's thesis in the Faculty of Education at the University of Victoria and my research interest is in how children play and learn together about reading and writing literacy. The study will enable me to see the ways in which children learn about reading and writing when they interact and play in centres in the daycare environment.

How is my child involved?

Children who participate will be videotaped and observed as they play in various centres during the scheduled center times of the daycare environment. The observations will be done my myself for a four week period, approximately three 45 minute sessions a week. I hope to begin in July and complete the observations in August.

Participation is Voluntary

Your child's participation is completely voluntary and at any time you or your child may choose to withdraw. There is no penalty or repercussions for withdrawing at any point of the study.

Confidentiality

At all times, confidentiality is a key concern. All information is confidential and only the researcher (myself), a trained assistant and my Supervisor, Dr. Margie Mayfield at the University of Victoria (721-7849) will view the tapes and other project records. The anonymity of your child will always be protected; no names will be used as names will be coded or replaced by pseudonyms. Once the videotapes have been analyzed, the tapes will be destroyed. All research materials and records will be stored in a locked cabinet in my home and in the event of you withdrawing, all materials pertaining to your child will be destroyed immediately.

Questions and Further Information

Your cooperation and assistance in completing this form is appreciated. If you decide to participate or decline to participate, please return this form so that I know that you have received and reviewed this letter. You may retain the attached copy of this letter for your records. If you have any further questions, please don't hesitate to contact me, Karen Segato at xxx-xxx, or Dr. Margie Mayfield at 721-7849.

Thank you for your time and consideration,

Most sincerely,

☐ I have read and understood this letter and as the parent/guardian of my child, I give permission for my child to participate in this research study.

☐ I do not wish my child to participate in this study.

☐ I need more information and would like to discuss some details. Call me at this number _____ .

_____

Parent's Signature

_____

Child's Name

PLEASE RETURN THIS FORM TO YOUR CHILD'S TEACHER.

THANK YOU.

Appendix D

Listing of Literacy Tools

appointment book	diaries	prescription pads
observation logs	business cards	labels
message pads	stickers	pens
guest books	pencils	pricing tags
erasers	name tags	stamps
stamp pads	calendar	check books
stationery	maps	post cards
licenses	passes	tickets
letter stamps	telephone book	catalogues
various books	reference books	pamphlets
magazines	posters	file folders
various paper sizes	play money	

Appendix E

List of Child Interview Questions

1. What was your favorite material or toy that you played with in the housekeeping area?
2. What did you like or enjoy when playing in the housekeeping?
3. If I could bring something new that I didn't bring this time, what would you want me to bring?
4. Would you like me to bring more of something?
5. What didn't you like about playing in the housekeeping or with the materials or toys?

Appendix F

Example of Transcripts

August 20, 1996

Tyler sits on floor with boxes: "I need more. I need more shoes."

Jamie sits at table with papers.

Tyler walks over to table and gets pen: "I'm making the numbers."

Jamie: "How do you write?"

Tyler: "Easy, see, that's 10, 20 and 13. That's 13 dollars."

Jamie: "I want that one. Hey!"

Tyler: "No, do that one. Just, OK. You do those ones and I do these ones. $11.00.

Jamie watches.

Tyler: "Eleven dollars, eleven dollars."

Jamie: Now, are you done?"

Tyler: "Is that 13? Is that 13?"

Jamie watches.

Tyler: "A one, and a three. How do you do a two? There, that's two."

Jamie: "Now can I have it. I throwed it to you."

Tyler: "I need more shoes. Wanna help? First, I need some help. You put shoes like this. I'm just putting some numbers."

Tom enters room.

Jamie: "Me and Tyler are doing it. What's this?" (Holds up tissue paper.)

Tyler: "I don't like it on the top." (As Jamie puts paper on top.) "They won't see the shoes then. That won't be a number, OK?"

Tom walks to big table and looks at materials.

Tyler: "Put one in and put one shoe on top." (Directs Jamie, writes on box.)

Stewart enters room.

Tyler: "Do you want to buy some shoes? Do you want 11 or 10 or 12?"

Stewart: "Twelve." (And sits in chair.)

Tyler: "You want 12?"

Stewart: "I want that."

Tyler: "You want this one? There's nothing in, right?"

Jamie: "Right?"

Stewart: "I want that one."

Jamie: "This one? How big are your feet?"

Stewart lifts feet up.

Jamie moves chair.

Tyler: "No, keep it like that."

Stewart takes shoes off and Jamie helps him put shoes on.

Jamie: "Put them on here. (Points to box.) I'll measure." (Holds shoes up.)

Teacher comes in and asks who is going to play yard.

Tyler: "Do you want these ones? No way."

All three huddle around box.

Tyler: "That's 11. Those are power shoes. You can't have them."

Tyler: "Tom, it was 13."

Tom: "Don't tell me."

Jamie: "Tom, do you want shoes?"

Stewart walks back to Jamie.

Jamie, sitting on floor: "Do you want more?"

Stewart: "I want that. I want that."

Jamie: "Where's the pink shoe box? Can you get it for me?"

Tyler: "Does he want those ones? Which ones?"

Jamie: "No, Stewart, I have to put them back. Like that." (Puts box on floor.)

Stewart watches Jamie put shoes away.

Tom plays with paper at table.

Tyler puts on high heeled shoes.

Tyler: "These are my power ones. (Jumps.) Tom, make some . . . "

Tom uses adding machine, picks up pencil and writes on paper.

Stewart puts on shoes and walks around.

Tyler: "Do you want these?"

Stewart: "I need shoes."

Jamie and Tyler help Stewart put on shoes.

Stewart: "I want that one up there."

Jamie: "You can wear these ones."

Tyler: "These are also power shoes."

Jamie: "They're mine."

Stewart: "No."

Tyler: "Jamie, do you want to do your power shoes now?"

Stewart: "See."

Tyler: "They fit you very well."

Stewart walks over to Tom: "How many dollars?"

Tom: "Tyler, pretend you see a thing coming out of . . . . "

Stewart: "I want to pay for my shoes, please."

Tom: "Pretend you saw another one."

Stewart hands paper to Tyler.

Tyler: "Oh, these look good."

Tom: "These are the only time I'll take them." (To Stewart.)

Tyler: "Watch this." (Jumps on shoes.)

Tom sings.

Stewart writes on paper, scribbles.

Frank enters room, walks to where Tom is: "Can I play/"

Tom: "No, no, I'm using it."

Frank writes on paper.

Jennifer walks in. Picks up pencil and walks to area where Tyler and Jamie are playing.

Teacher walks in and announces snack. Frank goes for snack.

Stewart and Jennifer sit in chair. Tyler puts shoes in front of Jennifer.

Jennifer tries on shoes and walks to table.

Jennifer to Tom: "Can I wear these?"

Tom: "Yes."

Jennifer: "How much do these cost?"

Tom "65 cents."

Tyler: "No, they cost $10."

Tom writes on paper.

Mike comes into room. Sits on chair.

Tom: "This is how much it cost. This is how much it cost, Mam." (Writes on paper.)

"There you go. This is how much it cost."

Mike walks to big table and writes on little paper.

Tyler: "there's just one pair. Sir, we just have one box left." (To Tom.)

Tom: "OK, I'll write it down on my paper."

Stewart Walks to table and leafs through pad of paper.

Tyler: "No, no, no, don't, don't write it down. We need somebody to have it."

Tom: "Give it to my wife."

Tyler: "She has a pair."

Mike watches Tom, then writes on paper.

Tyler: "I need those shoes back."

Jennifer: "I'm not play now. You said I can't have two pairs."

Tom: "Pretend you saw someone writing down."

Frank enters room. Goes to Tom.

Tom: ""I'm using it."

Mike writes on paper.

Frank: "Anyways, I'm not going to be your bud."

Tom: "Get out a pencil."

Jennifer picks up two pencils: "I have lots of pencils."

Tom: "I have to do lots of writing."

Stewart writes on paper near shoes: "Here's one." (Brings box to Tyler and Jamie. Puts pencil back.)

Tom leaves room.

Tyler: "Write that down." (To Jamie.)

Stewart puts paper on shoebox.

Jennifer: "I don't want that one. They're almost out of shoes."

Frank writes on paper: "Stewart, Stewart!"

Stewart walks over and Frank sticks note on box.

Frank writes on paper. Jennifer writes on paper.

Frank: "This goes, Jennifer, this goes on the shoes."

Stewart picks up phone.

Renee enters room. Goes to big table. Picks up pencils. Pulls over chair. Looks at paper.

Frank hands Renee paper.

Renee stands up and gets two doctor bags.

Mike gets bag from Renee and sits at table.

Frank: "You be the doctor and you can be my helper." (Keeps writing and using machine.)

Mike looks through bag. Renee stands up and walks and looks at Tyler and Jamie.

Frank begins to look through medical bag and puts band aid on arm.

Frank types on machine: "I'm gonna phone bubba."

Mike walks away, picks money up from ground and puts into cup: "I got these."

Frank puts down phone. Types on machine.

Mike walks back to table.

Frank: "Hey, Mike, do you wanna buy this phone?" (Takes money from Mike.)

Mike moves to shelf and plays with cup and phone.

Renee gets boxes and puts them on table.

Frank and Renee look through them.

Tyler: "Who wants some shoes? Who wants some shoes? Who wants some shoes? Who wants some shoes? Who wants some shoes?"

Frank takes box and goes and sits at floor with Tyler.

Appendix G

Coding Sheet Samples

Time /Duration	Name of Child	Solitary	Parallel	Paired	Group

Literacy Uses

oral	s. of info	Self Ex.	Identity	Pr. of Info	Memory	Econom.	Models	Status	Notes	Personal	Notes

Literacy Behaviors

Environ.R	Funct.R.	Recr. R.	Acad.R.	Read Aloud	Browse	Read Ext.	Func.W	Rec.W	Acad.W	Oral	phys

Role Categories

Model	Inviter	Coach	Direct.	Player	Negot.	Affirm.	Contra.	Facil.	Blocker	Regul.	Exper.

Appendix H

Summary of the Frequency of Social Context

	Three Year Olds		Four Year Olds		Five Year Olds		
	Male	Female	Male	Female	Male	Female	Total
Solitary	17	3	32	34	6	14	106
Parallel	22	12	76	52	53	185	400
Paired	24	1	102	65	27	153	372
Group	7	3	27	12	9	87	145
Total	70	19	237	163	95	439	1023
%	6.82%	1.86%	23.1%	15.93%	9.24%	42.91%	100%
Total by age	89		400		534		1023

Appendix I

Summary of the Frequency of Literacy Behavior

	Age 3		Age 4		Age 5		Total
	Male	Female	Male	Female	Male	Female	
Environmental Reading	1	0	7	1	1	15	25
Functional Readings	1	0	1	2	1	3	8
Recreational Reading	1	0	4	0	0	4	9
Academic Reading	0	0	0	1	0	2	3
Read Aloud	0	0	1	0	1	4	6
Browse	4	0	6	3	1	39	53
Reading Extension	1	0	1	0	0	1	3
Functional Writing	12	0	32	17	4	66	131
Recreational Writing	14	5	25	37	32	108	221
Academic Writing	0	0	3	3	5	1	12
Oral Discussion	10	0	54	39	19	114	236
Physical Manipulation	28	11	94	62	35	86	316
Total	**72**	**16**	**228**	**165**	**99**	**443**	**1023**
%	**7.04%**	**1.56%**	**22.29%**	**16.13%**	**9.68%**	**43.30%**	**100%**
Total by Age		**88**		**393**		**542**	**1023**

Appendix J

Summary of the Frequency of Literacy Roles

	Age 3		Age 4		Age 5		Total
	Male	Female	Male	Female	Male	Female	
Model	0	0	1	3	0	8	12
Inviter	3	0	16	12	3	27	61
Coach	0	0	2	2	1	12	17
Director	3	0	29	17	7	69	125
Player	61	16	169	118	66	265	695
Negotiator	0	0	3	2	0	6	11
Affirmer	0	0	3	1	0	7	11
Contradictor	1	0	2	2	0	8	13
Facilitator	1	0	0	3	2	9	15
Blocker	1	0	9	9	6	17	42
Regulator	0	0	7	2	0	2	11
Experimenter	2	0	2	3	1	2	10
Total	**72**	**16**	**243**	**174**	**86**	**432**	**1023**
%	**7.04%**	**1.56%**	**23.75%**	**17.01%**	**8.41%**	**42.23%**	**100%**
Total by Age		**88**		**417**		**518**	**1023**

VITA

Surname: Segato Given Names: Karen Louise

Place of Birth: Montreal, Quebec, Canada

Educational Institutions Attended:

Camosun College	1985
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Degrees Awarded:

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Title of Thesis:

The Role and Behaviors of Preschool Children in Literacy Themed Symbolic Play

Author [redacted]

Karen Louise Segato

September , 1997