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EFFECTS OF ADULT MODELING ON LITERACY BEHAVIORS OF HEAD START PRESCHOOLERS

by

Stephanie L. Kerbel, M.A.

A Thesis
Submitted to the
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EFFECTS OF ADULT MODELING ON LITERACY BEHAVIORS
OF HEAD START PRESCHOOLERS

Stephanie L. Kerbel, M.A.

Western Michigan University, 2001

This project explored the uses of literacy artifacts in the dramatic play of preschool children from diverse cultural and linguistic backgrounds who live in poverty in Kalamazoo County. The purpose of this 9-week study was to determine the impact of adult modeling on the frequency and quality of use of literacy artifacts during the dramatic play of at-risk preschoolers. Two Head Start classrooms received different types of intervention: (a) a literacy-enriched dramatic play area with adult modeling for 5 minutes at the start of each play period (once per week); and (b) a literacy-enriched dramatic play area without adult modeling. Prior to and following a 7-week intervention period, children's literacy and non-literacy behaviors were documented through direct observation. Results from the study indicated that time-limited adult modeling has a significant impact on preschoolers' literacy behaviors during dramatic play activities. Qualitative analyses further revealed that quality of literacy material use increased in both classrooms; however, quality of use was more diverse in classroom A (materials and modeling) than classroom B (materials only).

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Stephanie L. Kerbel

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CHAPTER I

INTRODUCTION

This study examined the effect of adult modeling on emergent literacy behaviors among Head Start preschoolers. Although, definitions of literacy have been debated throughout the years and a direct connection between uses of literacy materials during play activities in preschool years and literacy abilities in the school-age years has not fully been established, research suggests that the two are related. This project was designed to examine at-risk preschoolers in Head Start classrooms who were demonstrating minimal use of literacy materials. The purpose of the investigation was to compare the effects of adding literacy materials alone into dramatic play areas with providing literacy materials plus adding brief adult modeling of how to use the literacy materials contextually in dramatic play.

Definitions of Literacy

Various definitions of literacy exist. The definition of literacy has expanded to include much more than just knowing how to read and write. One of the more traditional views of literacy is the following definition provided by the National Literacy Act of 1991: "an individual's ability to read, write, and speak in English and compute and solve problems at levels of proficiency necessary to function on the job and in society, to achieve one's goals and to develop one's knowledge and potential."

This definition describes literacy as an autonomous and universal set of skills that detach social and cultural contexts from the development of these skills (Street, 1984).

Other views of literacy encompass social and cultural factors. In other words, literacy extends beyond reading and writing to incorporate how a literate person thinks logically and operates within a given society (Freire & Macedo, 1987; Freire, 2000; Westby, 1995). According to this view, literacy must include abilities beyond reading and writing that encompass analysis, objectivity, and contemplation (Westby, 1995). Furthermore, definitions of literacy are now incorporating social and cognitive ideas related to how language is used to create a meaning and how the meaning is communicated to others (Bryan, 1996). "Practices and uses of literacy depend on the social situations in which literacy is learned and the skills, concepts, and ways of thinking that are part of that learning" (Westby, 1995, p. 51).

Regardless of how literacy has been defined, gaps in literacy achievement exist between children from low socio-economic (SES) communities and their middle-class peers, as well as between children from culturally and linguistically diverse backgrounds and their mainstream counterparts. Research suggests that children from low SES communities fare less well in the development of academic literacy skills than their middle-class and upper-class peers (Warren-Leubecker & Carter, 1988; Wells, 1986). Warren-Leubecker and Carter (1988) found that kindergarten children from low SES families did not perform as well as children of middle-class families on metalinguistic tasks (i.e., phoneme segmentation, word

segmentation, and syntactic awareness); furthermore, the study showed that metalinguistic tasks were correlated with reading ability.

Snow, Burns, and Griffin (1998) suggests that some children from low SES communities do not have sufficient home experiences with reading and writing activities, which may affect their abilities to acquire adequate literacy skills to function in a literate society. One hypothesis is that children of poverty are at risk for literacy failure because low SES families tend to be preoccupied with financial, nutritional, and health concerns, which might preclude them from focusing on school literacy activities such as joint book reading (Chaney, 1994; Snow, Burns, & Griffin, 1998).

Limited school resources also can negatively affect academic literacy achievement of children from low SES communities. A child from a low SES family will be more at risk for reading problems if attending a school within an impoverished community than if that same child were to attend a school in a middle-class or upper-class community (Snow, Burns, & Griffin, 1998). This may be because schools attended by a majority of children from lower income families tend to be substandard. In fact, the Snow, Burns, and Griffin (1998) reported that since children from low-income communities are "more likely to attend substandard schools, the correlation between SES and low achievement is probably mediated, in large part, by differences in the quality of school experiences" (p. 126).

Low SES is not the only factor influencing children's literacy development; researchers propose that culture also plays a role in children's literacy development.

When researchers control income by examining African American students and Caucasian students within the same socio-economic class, students of African American descent perform lower than those of Caucasian descent (Scott & Marcus, 2000; Westby, 1995). Furthermore, although the mean reading achievement scores of African American students are increasing, there remains a gap between scores with Caucasian children. Children of Caucasian descent have maintained overall higher academic scores for the last 16 years (Snow, Burns, & Griffin, 1998). Children from culturally and linguistically diverse backgrounds seem to be at a disadvantage for academic literacy development in particular. Some researchers studying home and school literacy experiences suggest that discontinuities between home and school literacy practices explain this trend.

The problem may not be lack of literacy experiences so much as a mismatch. McCarthy (2000) reviewed a significant body of research that suggests that all children come to school with literacy experiences from their daily home interactions. That is, in daily interactions within their homes, all children are socialized into literacy practices through which they learn about the purposes of reading and writing (Scott & Marcus, 2000). Several researchers (Baker, 1999; Purcell-Gates, 1996; Teale, 1986; Taylor & Dorsey-Gaines, 1988) showed that children from diverse cultural and language backgrounds are exposed to literacy materials, use literacy materials in complex ways, and that their parents are concerned with their children's education (cited in McCarthy, 2000, p. 146). These home literacy practices, however, do not always match the practices and expectations of the school system (McCarthy,

2000; Westby, 1995) particularly for children from diverse cultural and/or low social economic status (SES) communities.

In their review of the literature, Scott and Marcus (2000) described a study by Phillips (1972) that showed that Native American children typically learn from each other and not from adults, especially in a one-on-one format. Moreover, African American children learn literacy within their homes from "playing school" (Scott & Marcus, 2000). These two examples demonstrate home literacy practices of culturally and linguistically diverse families that are different from experiences typically supported in an academic setting.

The evidence suggests that socio-economic status (SES) and cultural practices affect academic literacy achievement, and that children from low SES communities and culturally and linguistically diverse families are not being adequately prepared to meet school literacy expectations. The next logical step is that children from these populations, particularly Head Start preschoolers, would benefit from additional support in acquiring school literacy behaviors to aid their transition from home literacy practices to those expected from school systems.

Prior research has examined children's literacy behavior in dramatic play. Neuman and Roskos (1990, 1992) found that preschoolers interact with literacy materials within dramatic play when provided materials. Anecdotal data of possible effects of adult modeling led to further research (Neuman & Roskos, 1993) that specifically analyzed children's literacy behaviors following adult modeling of literacy materials. Neuman and Roskos (1993) found that exposure to adult modeling

for the entire free play period (forty-five to sixty minutes) had a positive effect on children's literacy behaviors. Vukelich (1991) specifically examined brief (i.e., time-limited) adult modeling of literacy materials in two groups of kindergarteners. Adults modeled the use of literacy materials for five minutes at the start of the free play period in dramatic play. Results from the study were inconclusive; one group demonstrated an increase in literacy behaviors and the other group had a decrease. Interpretation of the results is further limited by the short duration of the study (the study spanned one week in length with two days of time-limited adult modeling) and the absence of a control group to compare changes in behavior. These limitations represent a gap in the research regarding the effects of brief adult modeling on children's literacy behaviors during dramatic play.

The purpose of this study was to determine the effect of a five-minute period of adult modeling (i.e., time-limited adult modeling) on the use of literacy artifacts in the dramatic play schemes of preschoolers. Specifically, this study was designed to answer the following questions:

1. Does the addition of literacy materials alone increase preschoolers' frequency of literacy behaviors?
2. Does the combination of time-limited adult modeling plus literacy materials increase the frequency and quality of literacy behaviors exhibited by Head Start Preschoolers during dramatic play activities?

CHAPTER II

REVIEW OF THE LITERATURE

Development and Importance of Emergent Literacy

In the late 1800's and early 1900's, educators believed that literacy instruction began when children entered school. In the 1920's, educators began to consider the preschool years as a "reading readiness" period. Researchers then started examining factors that made children ready to read. This time in history followed Gesell's (as cited in Morrow, 1990; Teale & Sulzby, 1986) work from a maturationist's viewpoint. According to this view, formal instruction should be initiated when children have the necessary skills (e.g., phonological awareness) for reading and are then said to be "ready." These skills were taught to preschoolers and kindergarteners without consideration of prior literacy knowledge.

In the 1960's and 1970's, research on oral language development influenced practices in early literacy learning. Researchers began to speculate that development of oral language, reading, and writing skills may overlap (see reviews of the history of emergent literacy in Morrow, 2000; Teale & Sulzby, 1986). Bryan (1996) reported evidence that development in language skills may influence development in literacy. Goodman (1984), a supporter of early literacy practices, acknowledged that

"children's discoveries about literacy in a literate society such as ours must begin much earlier than at school age" (p. 102).

Growth of children's literacy skills can be viewed as progression that starts simultaneously at birth with learning to talk. Preschoolers' initial awareness and exploration of literacy is called emergent literacy and can be defined as a process of developing literate behaviors (Teale & Sulzby, 1986). In preschool, children acquire literacy knowledge that can help with reading achievement in the first and second grade (Neuman & Roskos, 1993; Teale & Sulzby, 1986). Children can develop both language and literacy skills by practicing and experimenting during play.

The Relationship of Dramatic Play and Literacy Acquisition

Dramatic play occurs when children pretend play in a social context (Davidson, 1996). In most preschool classrooms, dramatic play occurs in a dramatic play center, which is typically a designated area of the room, thematically arranged into a housekeeping area. Dramatic play centers are ideal for allowing children opportunities to explore (i.e., practice and experiment with) and expand their linguistic and literate abilities (Pellegrini & Galda, 1993). Patton and Mercer (1996, p. 10) stated that dramatic play areas are "compatible" with literacy acquisition because they allow children to self-direct their play. Also, children use language when they act out roles, set the context for a play theme, or share ideas with each other about their play (Davidson, 1996). Dramatic play areas not only provide children with authentic reasons to use literacy materials, they also attract children to

experiment with print, act out a variety of roles, and experience the language and behaviors that are associated with those roles (Davidson, 1996; Vukelich, 1990). Dramatic play centers allow preschoolers to (1) create a foundation for further cognitive development including literacy skills, (2) be exposed to symbolic play related to writing (both are representational systems), (3) use language during play that relates to literate language, and (4) demonstrate literacy behaviors when they are provided with literacy materials (Hall, 1991).

Children are exposed to and interact with many literacy materials throughout their day. In preschool classrooms, some literacy events children experience may include listening to stories read aloud, learning to write their own names and names of peers, playing games with symbols, learning sound—letter connections, and singing rhyming songs (Watkins, 1996). Children also can be exposed to additional literacy activities within the dramatic play area. Preschools such as Head Start have incorporated dramatic play centers into their classrooms. This is a positive change that provides children opportunities for language and literacy development; however, the mere presence of play centers does not guarantee that contexts will be optimal for encouraging literacy development.

The Department of Health and Human Services (2000) conducted a Head Start Family and Child Experiences Survey (FACES). Results of the national survey found weaknesses in the dramatic play areas of Head Start classrooms. Specifically, dramatic play areas typically did not encourage play related to activities beyond housekeeping. Additionally, little progress was observed in children's letter

identification and book knowledge from the beginning of the school year to the end. According to the FACES Findings brochure (2000), more preschool experiences should have focused on emergent literacy. Based on these results, the federal Head Start Bureau encouraged an increase in literacy activities in Head Start classrooms.

The Importance of Print Exposure in the Form of Literacy Materials

When allowed to discover print on their own, children can view literacy as a more meaningful activity that serves a purpose (Neuman & Roskos, 1990). Print exposure also enables children to practice writing or to use print in play (Snow, Scarborough, & Burns, 1999) and may aid in facilitation and understanding of uses of various literacy materials (e.g., recipe cards, cookbook) as well as functions of literacy materials (e.g., a phone book is used to find phone numbers) (Vukelich, 1991). This is particularly true for children from diverse cultural and linguistic communities who live in poverty and may not be exposed to print or literacy-related activities similar to the academically-oriented ones expected or valued in the school system. Einarsdottir (1996) suggested that children who are exposed to literacy materials demonstrate more literacy activities, such as reading simple words and phrases, over the course of an academic year.

Research shows that when literacy materials were incorporated into dramatic play centers, children interacted with them. Neuman and Roskos (1990) examined how an environment rich with print would affect culturally diverse preschoolers' literacy behaviors. The researchers rearranged a preschool classroom into four play

centers, including a kitchen, an office, a post office, and a library center. Multiple situational appropriate literacy props were introduced into each center (e.g., telephone books, cookbooks, and notepads were inserted into the kitchen area). The children's play was systematically documented from observation and videotape evidence prior to and one month following the change in environment and introduction of literacy materials. A qualitative analysis revealed that incorporating literacy artifacts in play centers positively impacted children's literate behaviors in a variety of ways. Specifically, the authors found that the children's use of literacy materials was more intentional and contextually based. They found that the children's interaction with literacy materials became more connected in that a domino effect occurred with one literacy activity leading to another. For example, children were writing and dictating letters, putting them into envelopes, and mailing the letters. The connected play led to a theme-based play with reading and writing activities underlying the theme. Children engaged in more roles during play following literacy enrichment than prior to. The authors concluded that enriched dramatic play areas are important places for young children to interact with print.

In a follow-up investigation, Neuman and Roskos (1992) modified their previous study by adding a control group that did not experience an environmental change or receive literacy materials. Additionally, the time-line of the study was extended from one month to eight months, and the children's play was analyzed specifically for literacy demonstrations in regard to handling (manipulating literacy

materials for exploration purposes), writing (using written marks to communicate), and reading (giving meaning to print or written marks).

Post-intervention data revealed that literacy behaviors of the intervention group (30 literacy behaviors) occurred with considerably more frequency than for the control group (5 literacy behaviors). Additionally, the quality of the children's literacy behaviors was affected; duration and complexity of the children's literacy demonstrations increased in the experimental conditions. Although these studies did not specifically examine the effects of adult modeling on children's interactions with literacy materials, Neuman and Roskos (1990, 1992) observed that by demonstrating literacy practices, teachers helped children to be aware of literacy materials and to develop literacy behaviors. Neuman and Roskos (1992) noted a lack of research investigating the teacher's role in encouraging emergent literacy development in the dramatic play areas of preschool classrooms. Further, they urged future researchers to examine the role of adult modeling in children's literate play.

The Importance of Adult Modeling of Literacy Materials

Other research has shown that having adults guide and/or model the use of literacy artifacts can have a positive impact for children (Morrow, 1990; Neuman & Roskos, 1993; Vukelich, 1991). Morrow (1990) studied whether inclusion of literacy materials in dramatic play areas with teacher guidance could affect play behaviors of preschoolers from middle-class families. Teacher "guidance" meant that the teachers introduced items to the children in a discussion format and made suggestions for their

use at the start of each free-play period, but the teachers did not demonstrate use of the materials. Morrow's study included a control group and three experimental groups. One group (E1) had teacher guidance in a dramatic play area enriched with various literacy materials with no particular theme. The second group (E2) had a thematic play area with teacher guidance of literacy materials and the third experimental group (E3) had the same thematic play area with literacy artifacts and no adult guidance. The children's literacy behaviors were divided into three categories that included paper handling ("sorting, shuffling, and scanning"), writing ("drawing, scribbling, tracing, copying, dictating, writing on a computer or typewriter, thematic play related to writing, story writing, and invented writing"), and reading ("browsing, pretend reading, book handling, storytelling, reading aloud to oneself or others, and reading silently") (p. 542). Morrow analyzed three categories plus a total count of literacy behaviors.

Morrow's (1990) results revealed a significant increase in children's literacy behaviors with adult guidance across the categories in all the experimental groups. No significant changes were identified in the control group. Children in the thematic area with adult guidance (E2) had the most interactions with literacy materials. The children from E1 (literacy materials with adult interaction and no particular theme) were the second highest group for literacy activities. However, these groups E1 and E2 were not significantly different from each other. Children in the thematic dramatic play area with adult guidance (E2) interacted in more reading activities, and children in the non-thematic adult guided play area with literacy materials (E1) participated in

more writing activities. The overall results showed that adult guidance during play increased the number of interactions that children had with literacy materials.

Guidance, as defined by Morrow (1990), is only one form of support adults can provide. Adults can also model use of literacy materials as another way to support literacy behaviors. Modeling is one aspect of social learning theory, the primary tenet of which is learning does not depend upon performance (Bandura, 1977). Paul (1995) defined modeling as an adult demonstration of the use of materials as children look on; however, the child is not required to imitate these demonstrations. The following studies examined the effect of adult modeling on children's use of literacy materials.

Neuman and Roskos (1993) also examined the role of adult interaction related to children's quantity of literacy interactions. Specifically, their study compared frequency of literacy behaviors of Head Start preschoolers from diverse cultural and linguistic backgrounds with and without adult modeling and/or direction. In one intervention group, the dramatic play area was transformed to a thematic office setting and an adult was assigned to assist the children within their play scheme and/or model literacy behaviors. For example, adults expanded children's play or modeled appropriate literacy material use by "taking an order" or "making a list." Adult interaction occurred within the play area for the entire free-play period (45 to 60 minutes). The adults were encouraged to model literacy behaviors relevant to the children's play and were discouraged from teaching academics (e.g., colors, numbers, and letters). In the second intervention group, the dramatic play area was also transformed to a thematic office setting, but was provided an adult that only observed

the children. The observer did not interact with the children except to discipline. The third group was the control group; the setting and materials did not change from the teacher's original classroom design that included a typical housekeeping dramatic play area.

Literacy behaviors were recorded three times throughout the study, at baseline, mid-intervention, and following the intervention. Literacy behaviors were coded into the three categories of handling, reading, and writing based on the authors' previous study (Neuman & Roskos, 1992). Following a five-month intervention period, children who were exposed to the one hour of adult modeling of literacy behaviors demonstrated more literacy activities than those who were not. Based on the results, the authors proposed that adult modeling with literacy materials is an "important opportunity" for children from culturally diverse linguistic and impoverished backgrounds to "think, speak, and behave in literate ways" (Neuman & Roskos, 1993, p. 95).

However, the constant adult involvement carries a high price of adult time commitment and may not be entirely positive in other ways. That is, some researchers have warned that adult modeling may have a negative impact on children's learning and play (Davidson, 1996; Johnson, Christie, & Yawkey, 1987; Pellegrini, 1983), particularly if adults remain in the play center for long periods of time. Concerns are that adults may tend to take over the play and repair breakdowns, initiate interactions (Pellegrini, 1983), ask too many questions, redirect, or instruct the play (Davidson, 1996) rather than allowing children to utilize their language skills to communicate

with each other. The question remains, however, whether a shorter span of adult modeling may have the positive results Neuman & Roskos (1993) found.

Vukelich (1991) studied the effect of time-limited adult modeling (five minutes at the start of each free play period) in relation to the amount of time kindergarten children from middle-class homes demonstrated literacy behaviors. This one-week study incorporated adult modeling of literacy materials in the dramatic play area of two classrooms for five minutes at the beginning of free play for three consecutive days. The results were deemed inconclusive, however, in that the duration of one class's interaction with literacy materials increased, whereas the second class's interaction decreased. The study did not compare results to a control group; rather it compared baseline with post-intervention data and the author concluded that two days did not provide adequate time for children to learn literacy behaviors independently. She suggested that future researchers examine effects of adult modeling on a longer time-line than one week.

Summary of Prior Research

In summary, past studies have revealed that children from culturally diverse families do interact with literacy materials when materials are incorporated into preschool classrooms, specifically dramatic play areas (Neuman & Roskos, 1990, 1992). Morrow (1990) reported an increase in middle-class preschoolers' literacy behaviors, specifically quantity and variety of use when provided literacy materials and adult guidance regarding functions of literacy materials. Neuman & Roskos

(1993) further demonstrated that adult modeling of literacy materials impacts quantity and quality of low SES and culturally diverse preschoolers' literacy behaviors. Vukelich (1991) examined the effects of time-limited adult modeling on middle-class kindergartners' literacy behaviors, with inconclusive results. Further research is needed to analyze effects of time-limited adult modeling of literacy materials on culturally diverse, low SES preschoolers' literacy behaviors and to compare results with the inclusion of literacy materials alone.

An emergent literacy pilot project in Head Start classrooms located in southwest Michigan was implemented (Hyter, 2000). Literacy artifacts and opportunities to use literacy materials in dramatic play areas as well as in the classroom were documented. Results of this pilot project showed a lack of literacy materials available to the children, especially in the dramatic play area. Once materials were placed into the dramatic play areas, children interacted with them with a manner of excitement. For example, when paper and pencils were introduced into the dramatic play area, the children were very eager to play with these materials. Often during the free play period, children fought over the paper further suggesting limited opportunities to freely interact with literacy materials. The question arose as to the effects of time-limited adult modeling of literacy materials on literacy behaviors of Head Start preschoolers.

The current study explored the uses of literacy artifacts in the dramatic play of preschool children from diverse cultural and linguistic backgrounds who live in poverty in Kalamazoo County. The purpose of this project was to determine the

impact of time-limited adult modeling on the frequency and quality of use of literacy artifacts during dramatic play of preschoolers who are at risk for reading and writing difficulties. Specific research questions were:

1. Are there experimental and control group differences in the quantity of literacy events (i.e., frequency of literacy events) at pre- and post-intervention?
2. Are there experimental and control group differences in the quality of literacy events (i.e., type of interaction with literacy material) at pre- and post-intervention?
3. Are there experimental and control group differences in the type of literacy materials that were interacted with at post-intervention?

CHAPTER III

METHODS

Participants

A total of 30 preschoolers from the Kalamazoo County Head Start Program were invited to participate in this research study. Participants were male and female children ranging from three to five years of age. Two all-day classrooms, each containing 15 children, participated in the study. At the beginning of the school year, Head Start randomly assigned the children to a classroom. Parents or guardians were asked to sign a consent form prior to data collection (Appendix A). All parents of the children in classroom A signed a consent form; 12 out of 15 parents of the children in classroom B signed consent forms. Children who did not have signed consent forms were allowed to participate in the dramatic play area; however, these children were not videotaped. Ninety-three percent of the children from the two classrooms were African American; the remainder of the children were Caucasian. All participants of this project met the Federal poverty guidelines to be eligible for Head Start services (see Appendix B).

Classroom Context

Each Head Start classroom had three teachers, the lead teacher and two assistants. The three teachers met to consult about the classroom activities; however, the lead teacher was primarily responsible for the classroom curriculum planning.

The participating Head Start classes were all-day classrooms: The children arrived as early as 6:30 a.m. and left school as late as 6:30 p.m. Their daily schedule began with breakfast followed by circle time. Circle time was a group activity facilitated by the lead teacher. During this time, the preschoolers discussed the date, weather, and topic of the week. After circle time, the children had free time. Free time ranged from forty-five minutes to an hour and a half. During this time, the children chose from a variety of centers, which are explained in the following paragraph. The children then ate lunch provided by Head Start. Following lunch, the children engaged in gross motor play, took a 2-hour nap, and then had a snack before going home.

The morning free time consisted of the following center choices: dramatic play area, computer table, arts and crafts table, block area, reading corner, and writing table. In each classroom, free time meant that the children chose where they wanted to play. Children freely moved around and between areas. Only four children were allowed to play in the dramatic play area at a time. Each child was required to participate at the arts and crafts table every day to complete an activity planned by the lead teacher. This arrangement had the children flowing from one area to another throughout the free play period.

The dramatic play area contained a toy refrigerator, sink and counter, table and chairs, plastic food, plastic silverware, and dolls in a crib. This area allowed children to play freely and to construct play in themes, such as "house." The computer table had a computer with various learning activities available for the preschoolers' use. Computer programs were played via a touch screen with academic features, such as learning numbers, colors, and shapes. Art activities involved coloring, painting, pasting, and cutting. Children also had the choice to play with blocks in the block area on the carpet. Here, children built castles, houses, or towers, which sometimes were built to be knocked down. The reading corner contained pillows, a couch, and a bookshelf with a variety of books. Finally, the writing table provided children the opportunity to dictate stories to a scribe. At this table, the children were encouraged to draw a picture representing their story.

Procedures

Two speech-language pathology (SLP) graduate students enrolled in an off-campus practicum were assigned one classroom each for two hours, one day per week. For purposes of the study, one week is regarded as one session. The SLP graduate students were supervised for 50% of their time by an ASHA certified SLP. The SLP graduate students were in the Head Start classrooms during the children's morning free time period, during which children chose the center in which they would prefer to play.

Classrooms

Prior to the intervention, each classroom contained relatively the same types of literacy materials previously introduced by the teacher. Those previously introduced materials included posters, labels on objects or cubbyholes (i.e., baskets in which children placed their work), and a writing center. Baseline measures were made in both classrooms under this condition. During intervention, classroom A (experimental classroom) received literacy materials plus adult modeling of the use of the literacy materials. Specifically, classroom A had literacy artifacts added into the dramatic play area, plus the SLP graduate student assigned to this classroom modeled appropriate uses of literacy materials for the initial five minutes of the free play period as suggested by Vukelich (1990). This clinician facilitated interactions at the writing table activity when not modeling. Classroom B served as the control classroom for the adult modeling variable; that is, this classroom had literacy artifacts introduced into the dramatic play area, but without adult modeling. While not collecting data, the SLP graduate student assigned to this classroom also facilitated interactions at the writing table.

Literacy Materials

Twelve literacy artifacts were introduced into the dramatic play areas of classroom A and B over a two-week period as suggested by Vukelich (1990). The materials consisted of the following: newspapers, magazines, phone books, menus, paper (small and regular sizes), pencils, books, recipe cards, grocery lists, envelopes,

cookbooks, and maps. The possible literacy activities children could pursue included the following: making a book, reading a book to a baby doll, reading a menu, taking a telephone message, reading a recipe, taking a restaurant order, writing a grocery list, giving or completing homework assignments, reading a newspaper, writing letters, reading a map, or writing down directions.

Instruments

The graduate SLP students used a *Literacy-in-Play* form designed by Hyter & Kerbel (2000) to record observations of the children's interaction with literacy materials (see Appendix C). Observations of children's play were systematically documented twice for thirty minutes each during the study. Baseline data collection occurred during the second session and the post-intervention data collection took place at the end of the study during the ninth session. In each classroom, a maximum of four children were allowed to be in the play area at one time. Although each child who participated in the dramatic play area for the thirty-minute data collection period was tracked individually, evidence was not collected for all children (Appendix E). The system used to observe the four children playing in the dramatic play area will be explained in the following steps (see Figure 1).

1. The observer (SLP graduate student) noted the time the children entered the play area. The graduate student then randomly selected the first child (child A) and wrote his/her name. All the columns except for Duration and Time Out were completed and included the following: whether the activity was spontaneous or

facilitated by an adult, the literacy activities in which the child was participating, the type of literacy materials used, how the materials were used, and whether the materials were held, used appropriately, used inappropriately, or talked about (modified version of Neuman & Roskos, 1992).

2. In a counterclockwise direction, the observer recorded data for the next child (child B) in the play area. The subsequent line in the form was then completed, except the Duration and Time Out columns.

3. The observer again watched child A and if this child has changed his/her play, then the duration was recorded (in the first row that was started) and a different line was then created for child A's new play event. If child A's play had not changed, then the observer looked at child B and determined whether the play had changed compared to what was previously noted.

4. Either a new row was completed or the observer continued to the next child (child C). After observing child C and establishing a row on the form for this child, the observer looked at child A's play to determine if the play event and/or materials had changed, then continued to children B and C, and then examined the play of child D. The recorders were continually noting the time in the Duration column when children's activity changed. When any of the children left the play area, the time was noted on that child's last row of the form and a new line was created for the new student by recording the Time In (Sample completed form in Appendix D).

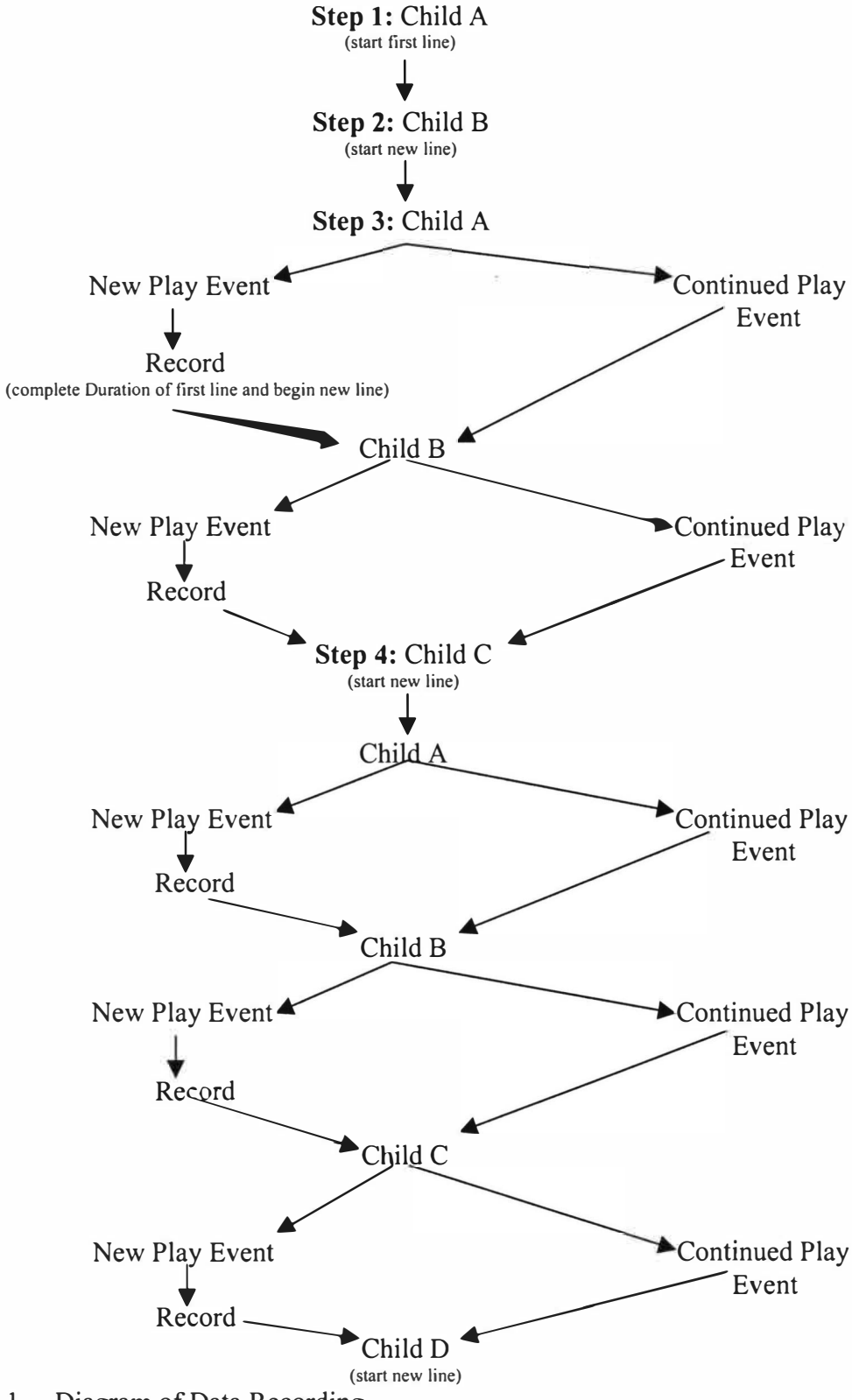

Figure 1. Diagram of Data Recording

Reliability of On-Line Coding

To ensure reliability of on-line coding among the observers collecting data using the Literacy-in-Play form (Hyter & Kerbel, 2000), interrater reliability was analyzed. Prior to baseline data collection during the first session, the SLP graduate students (observers) were trained by the certified SLP supervisor to use the data form. Training consisted of the SLP supervisor and graduate students coding together while discussing the observations recorded for twenty minutes. Following the training session, the SLP supervisor and one observer individually watched the children's play in the dramatic play area for twenty minutes and recorded observations individually. Interrater reliability was calculated from the individual coding results. The interrater reliability percentage with the observer in classroom A was 91%, and with the observer in classroom B reliability was 95%.

Data Collection

During the second session (week) of the study, baseline data were collected using the previously noted *Literacy-In-Play* form (Hyter & Kerbel, 2000). (It should be noted that numerous volunteers visit the Head Start classrooms on a daily basis to observe and interact with the children. It is a typical part of the children's day to have individuals other than their teachers in the classroom. It is highly unlikely for the Hawthorn Effect to have occurred during data collection.) Immediately after baseline data was collected during the same session (second session), six literacy materials were introduced into the dramatic play areas of classrooms A and B. The specific

literacy materials placed into the dramatic play area during the second session included a newspaper, magazines, phonebooks, menus, pencils, and paper. Recipe cards, grocery lists, envelopes, children's books, cookbooks, and maps were incorporated into the area at the beginning of the third session.

In classroom A, the SLP graduate student modeled various literacy activities for the first 5 minutes of each session (Vukelich, 1990). For example, the graduate student might use a pad of paper and pencil to write down directions to his/her home using a map. While performing this literacy event, the graduate student used self-talk as a way of providing a verbal model of what she was thinking while engaged in the literacy event. Modeling of literacy materials began on the second session immediately following baseline data collection. The study originally planned for a total of seven sessions (seven weeks) of modeling; however, due to unforeseen and uncontrollable events (i.e., a Halloween Party and a cancelled day of school due to snow) modeling did not occur during sessions four and seven. The study resulted in a total number of five sessions (five weeks) with adult modeling of literacy events for five minutes at the start of the free play period.

All classroom teachers in the two classrooms were informed to interact with the children in a natural and typical manner. As stated previously, no adult interaction (besides typical discipline from classroom teachers) occurred within the dramatic play area for the control classroom (B).

Post data collection occurred in the two classrooms the week following the fifth modeled session. For 30 minutes, the graduate students observed and recorded

the children's play in the dramatic play area. The *Literacy-in-Play* form was again the tool used to record the names of the children, literacy activities, literacy artifacts used, method of use, and length of time (recorded in minutes). Table 1 delineates the timeline of the procedures as well as specific tasks completed during the study.

Reliability of Differentiating Literacy Event from Non-Literacy Event

Interrater reliability was also analyzed to ensure consistency in differentiating a literacy event from a non-literacy event. The primary investigator trained a

Table 1

Time Line of Study

	Weeks/Sessions								
Tasks	1	2	3	4	5	6	7	8	9
Training/Reliability.	X								
Baseline data collection . . .	. . .	X							
Introduction of literacy materials	. . .	X							
Introduction of literacy materials	. . .	. . .	X						
Intervention (Class A) .	. . .	X	X	–	X	X	–	X	
Post-Intervention data collection	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	X

Note. – Denotes missed sessions of modeling. During the second session, baseline data collection occurred prior to the introduction of literacy materials and intervention.

second-year graduate student in speech-language pathology to code each line of the form as either a literacy event or a non-literacy event. Literacy events were defined as

any appropriate engagement in reading and/or writing activities as well as talking about reading or writing. As part of the training, the primary investigator explained the form to the graduate student as well as the definition of a literacy event. Then, the primary investigator and the graduate student coded 20% of the total number of entries (n = 96) together. Following the training period, the primary investigator and the graduate student independently coded 20% (every fifth coded line) of the results (pre-intervention and post-intervention data of classrooms A and B). For judging the presence or absence of literacy events, the interrater reliability was 100% for both classrooms.

Data Analysis

To determine the impact of adult modeling on the use of literacy artifacts during dramatic play, play events prior to and following the intervention were coded as either a literacy event or a non-literacy event. A Chi-Square analysis was conducted between the two classrooms and within each class across time to determine the significance of any difference.

Qualitative analysis of the use of literacy materials was completed by identifying and describing how the preschoolers interacted with literacy materials. This analysis is based on the qualitative categories defined by Neuman and Roskos (1990) and contains descriptions regarding whether the preschoolers handled, used appropriately, used inappropriately, or talked about the literacy materials. Handling (H) can be described as holding an object. When a child used an object for its

intended purpose, such as using a phone book within a literacy context such as looking up a phone number or reading the pages, the event was labeled as used appropriately (UA). An event was labeled as used inappropriately (UI) when a child did not use literacy material for its intended purpose; for example, standing on a phone book to elevate himself or herself. Additionally, talking (T) can be described as when a child spoke about the literacy event in which he/she was engaged.

Ten minutes of the dramatic play interactions in classroom A (materials and modeling) were video recorded during four sessions, and ten minutes of dramatic play interactions for classroom B (materials only) were video recorded for one session. Videotapes were viewed for anecdotal information regarding the children's interactions with literacy materials.

CHAPTER IV

RESULTS

The first research question focused on the potential group differences in the quantity of literacy events (i.e., overall frequency of literacy events), pre and post intervention. The second research question focused on the potential group differences in the quality of literacy interactions (i.e., type of interaction with literacy material), pre and post intervention. The third research question focused on the type of literacy materials on which the preschoolers focused during post-intervention data collection.

Description of Data

Observations of nine children (60%) from classroom A (adult modeling and literacy materials) and seven children (46%) from classroom B (literacy materials only) contributed to the pre-intervention data. During the thirty-minute post-intervention data collection, eight children (53%) from classroom A and seven (47%) children from classroom B played in the dramatic play area. Therefore, a total of 25 different children contributed to the pre and post data (See Appendix E).

Group Differences in the Frequency of Literacy Events

Due to the small sample size and dichotomous variables, the nonparametric Chi Square analysis was chosen to analyze the occurrence of non-literacy and literacy

events between and within groups to determine if the intervention was associated with the outcome.

Between Classroom Analysis

A chi square analysis could not be computed on the pre-intervention data because the number of literacy events was equal across both classes (Table 2).

Table 2

Number of Literacy and Non-Literacy Events Between Classes at Pre-Intervention

Dependent Variables	Classroom	
	A	B
Literacy Events	0	0
Non-Literacy Events	26	25
Total Events	26	25

Note. A Chi-Square Analysis was not be performed due to lack of difference in literacy events between groups at pre-intervention.

Pre-intervention data was collected prior to the introduction of literacy materials; data collection occurred in the play area with the materials provided by the classroom teacher. Neither group (Classroom A [literacy materials and adult modeling] nor Classroom B [literacy materials only]) produced literacy events during the thirty-minute pre-intervention baseline data collection. Additionally, both groups had relatively the same number of non-literacy events. Classroom A produced 26 non-literacy events and Classroom B produced 25. The children from both groups did

not demonstrate any literacy behaviors prior to intervention; as a result, there were no reported differences between the two classes regarding frequency of literacy events. These results show that both groups (classrooms) were essentially equal in regards to the children's literacy behaviors prior to intervention.

To analyze the effects of intervention, post-intervention data were calculated by means of a 2 (Classroom) x 2 (Literacy/Non Literacy Events) chi square analysis. It was completed to compare the number of literacy events and non-literacy events produced by each group. This analysis showed that adult modeling significantly increased the number of times literacy events occurred during dramatic play [χ^2 (1) = 19.456, p< .001] (Table 3). Specifically, classroom A (modeling and materials)

Table 3

Number of Literacy and Non-Literacy Events Between Classes at Post-Intervention

Dependent Variables	Classroom	
	A	B
Literacy Events	21	3
Non-Literacy Events	7	20
Total Events	28	23

Note. χ^2 (1) = 19.456, p< .001

produced significantly more (21) observed literacy events than Classroom B (materials only [3]). Both classrooms produced relatively the same number of combined literacy and non-literacy events; classroom A produced 28 total events and

classroom B had 23 events. Since the combined frequency of non-literacy and literacy events for both classrooms at post-intervention was similar, the number of literacy events in classroom A cannot be due to an increase in number of total events (non-literacy and literacy). Furthermore, comparing Table 2 to Table 3 reveals that the total number of literacy and non-literacy events was consistent between classrooms from pre-intervention to post-intervention.

Within Classroom Analysis

A 2 (Pre-/Post-Intervention) x 2 (Literacy/Non-Literacy Events) chi-square analysis was completed to compare the number of literacy events and non-literacy events produced at pre-intervention and post-intervention within each classroom (Table 4).

Table 4

Differences Between Pre-Intervention and Post-Intervention for Classroom A

Dependent Variables	Time	
	Pre-Intervention	Post-Intervention
Literacy Events	0	21
Non-Literacy Events	26	7
Total Events	26	28

Note. χ^2 (1) = 31.909, p< .001

In regard to Classroom A (modeling and materials), the difference in the number of literacy events from pre-intervention to post-intervention was statistically significant, χ^2 (1) = 31.909, p< .001. Classroom A produced significantly more literacy events during post-intervention (21) than pre-intervention (0).

Three children from classroom A participated in pre-intervention and post-intervention data collection. These three children demonstrated an increase in literacy events at post-intervention. For example, child number six demonstrated no literacy events prior to intervention, however during data collection at post-intervention, she had four literacy events.

Significant differences were not found within the materials only intervention group, classroom B, when the pre-intervention and post-intervention data were compared, χ^2 (1)= 3.478, p>.05 (Table 5). Classroom B did not produce significantly

Table 5

Differences Between Pre-Intervention and Post-Intervention for Classroom B

Dependent Variables	Time	
	Pre-Intervention	Post-Intervention
Literacy Events	0	3
Non-Literacy Events	25	20
Total Events	25	23

Note. χ^2 (1)= 3.478, p>.05

more literacy events during post-intervention (3) than pre-intervention (0). This result supports the idea that change in classroom A cannot be due to maturation effects because classroom B did not report significant changes between pre-intervention and post-intervention.

Qualitative Analyses

Quality of Use

The frequency of occurrence of the various qualities was counted from the data forms (Table 6). Uses of literacy materials did not correlate to number of literacy

Table 6

Quality of Use Regarding Literacy Materials

Classroom	Pre-Intervention				Post-Intervention			
	H	UA	UI	T	H	UA	UI	T
A	0	0	5	0	4	15	0	3
B	0	0	0	0	0	3	0	1

Note. H= Handling; UA= Used Appropriately, UI= Used Inappropriately, T=Talking About

events for two reasons. Only appropriate uses of literacy materials were counted as a literacy event. Secondly, there were occurrences of children using a material while talking about the material; hence these instances were counted twice for quality (handling and talking), but only as one literacy event. At pre-intervention baseline data, classroom A had five inappropriate uses of literacy materials; since these uses of

literacy materials were inappropriate, they were not counted as literacy events. At post-intervention, the children from classroom A had four instances of handling literacy materials, fifteen instances of using the materials appropriately, zero instances of using materials inappropriately, and three instances of talking about literacy materials. There were some instances when children simultaneously using materials appropriately and talking about the materials. For example, a child was noted to read, write, and talk about what he or she was writing. Post-intervention data showed that quality of literacy material use increased in classroom A.

Classroom B at pre-intervention had no uses of literacy materials, appropriate or inappropriate, handling, or talking about literacy materials. At post-intervention, children from classroom B used three materials appropriately and talked about one literacy material. It should be noted that one child was talking about the material while using the material appropriately. Post-intervention data revealed that quality of literacy material use in classroom B also improved.

Although no materials were handled in classroom B, classroom A had considerably more interactions with literacy materials, especially using materials appropriately. A child could have been holding an item in his/her hand thinking about what to do with it or watching others interact with literacy materials when the graduate student documented the use as handling. Neither classroom had any materials used inappropriately at post-intervention data collection.

Review of the videotaped samples revealed peer modeling of literacy materials following adult modeling. For example, during the first intervention

session, a child observed the SLP graduate student modeling the use of a menu and then used the menu later with another child who did not observe any adult modeling. Furthermore, the videotape showed instances of children interacting with literacy materials within the context of a group. For example, two children were using a phone book together; one held the phone book and the other child held the phone.

Interaction Regarding Types of Literacy Materials

According to the post-intervention data, the children in classroom A used paper, pencils, books, recipe cards, envelopes, and a phonebook. Classroom B interacted only with maps during the observed post-intervention period. Table 7 shows the materials used during the post-intervention period and how often the materials were used. According to the videotape samples taken during intervention sessions, children from classroom A also interacted with the newspaper, menus, and cookbook and children from classroom B also interacted with paper and pencils.

Table 7

Post-Intervention Interaction of Literacy Materials

Literacy Materials	Frequency of Use	
	Classroom A	Classroom B
Newspaper	0	0
Magazines	0	0
Phonebook	2	0
Menus	0	0
Paper	7	0
Pencils	5	0
Books	1	0
Recipe Cards	10	0
Grocery Lists	0	0
Envelopes	4	0
Cookbooks	0	0
Maps	0	3

CHAPTER V

DISCUSSION

Results from the present study indicate that time-limited (five minutes) adult modeling at the beginning of free play one time per week had a significant impact on preschoolers' literacy behaviors during dramatic play activities. Children who were exposed to adult modeling in addition to literacy materials engaged in significantly more literacy events than children who were provided access to literacy materials alone without adult modeling. These results are consistent with previous research (e.g., Morrow, 1990; Neuman & Roskos, 1993) and anecdotal data (Neuman & Roskos, 1990; 1992). Additionally, it also extends previous research by examining the effects of time-limited adult modeling of literacy materials. Specifically, this study differed from Neuman and Roskos (1993) in that adult modeling for the full free play period five days per week was not required to have an effect on preschoolers' literacy behaviors. Unlike Vukelich's (1991) study that examined the effectiveness of a similar time-limited adult modeling intervention, this study's results were not inconclusive. Adult modeling had an effect on literacy behaviors of at-risk preschoolers.

Contrary to previous research findings by Neuman and Roskos (1992), the current study did not find a significant increase in literacy events after the addition of literacy materials alone. Literacy materials alone had a minimal effect on children's

literacy behaviors. Although the population from the current study involved urban preschoolers, similar to Neuman and Roskos (1992), the population from the current study differed in that the preschoolers were primarily of African American descent from impoverished communities. Neuman and Roskos (1992) did not state the socio-economic status (SES) of the preschoolers, however, the authors did note that the preschoolers were primarily of Caucasian descent (62%). It could be that for children of low SES background and African American descent, the introduction of materials alone was not effective.

The quality of the literacy behaviors differed between pre-intervention and post-intervention. At post-intervention, children from both classrooms demonstrated an increase in their quality of literacy material use. However, children in classroom A demonstrated more diversity of interactions with literacy materials. Although children from both classrooms demonstrated appropriate interactions with literacy materials, the presence of adult modeling (classroom A) increased the children's frequency of interactions with literacy materials, which resulted in a broader range of interactions.

The videotape showed children in the classroom with adult modeling (classroom A) using the literacy materials within the context of group play. Additionally, there was evidence of peer modeling following adult intervention; for example, the graduate student modeled appropriate use of a menu and one of the children that observed this event began using a menu later in the session. He modeled the use of the menu to another student (new to the area) and she in-turn began using the menu appropriately. Although one cannot determine whether she knew how to

appropriately use the menu prior to this, events such as these do provide additional opportunities for children to develop and practice oral language and social skills. There is some evidence to suggest that oral language and literacy are inter-related processes in that development in one area influences development in the other (Bryan, 1996). Bryan further suggests that because children "develop oral language through observation, interaction, and imitation" that "those who work with young children should take advantage of every opportunity to model effective oral discourse forms and engage children in conversation" (Bryan, 1996, p.13).

While currently no research exists connecting literacy behaviors during pre-school dramatic play to later literacy development, there is consensus among professionals that emergent literacy is important in later literacy development (Neuman and Roskos, 1993; Teale and Sulzby, 1989; Chaney, 1994; Einarsdottir, 1996). Wells' (1986) Bristol study found that results of literacy tests given at the time children enter school predicted overall academic achievement at the ages of seven and ten; this indicates the importance of literacy knowledge in the school systems. Some researchers (Scott & Marcus, 2000; Wells, 1986; Westby, 1995) hypothesize that socio-economic status (SES) and cultural practices affect academic literacy achievement and children from low SES communities and culturally and linguistically diverse families are at a disadvantage in regards to academic literacy expectations upon entering the school system. Children from these populations, particularly Head Start preschoolers, could benefit from additional support in acquiring school literacy behaviors to aid their transition from home literacy practices

to those expected from school systems. This study is important in that it demonstrated that intervention (time-limited adult modeling) had a significant effect of literacy behaviors of preschoolers from diverse cultural backgrounds and low SES households.

Although the data from this investigation are important in the effort to establish effective measures for preventing literacy problems in at-risk populations, there are several limitations. First, the design compared classroom differences based on the children who played in the dramatic play areas on data collection days. The study did not track differences within individuals; data were not collected on every child in the classrooms. Thus, while the study demonstrated a general effect of the intervention, one cannot be sure of the extent to which the treatment had an impact on any single individual's use of literacy materials. Second, the design could have been strengthened with additional days of data collection at both pre- and post-intervention to ensure reliability of the observed data. Third, the same SLP graduate students who participated in the study collected the data, which could have resulted in observer bias. To eliminate the possibility of observer bias, a different SLP graduate student would have performed the data collection than those who participated in the study. Lastly, a no-intervention control group would have been useful in evaluating the impact of literacy materials alone on the preschoolers' literacy behaviors. As noted before, there was minimal impact using this intervention strategy, but having more data collection days combined with the addition of this no-intervention control group

would have strengthened the case either for or against the effectiveness of the literacy materials alone intervention.

Perhaps adult modeling does not need to occur within the dramatic play area. Future studies could examine the impact of adults modeling literacy materials within the classroom context. For example, a teacher announces to the class when taking phone messages or writes a "to do" list with the class. Such adult modeling may impact children's literacy behaviors as well.

As mentioned previously, it remains to be proven as to whether or not there is a connection between children's exposure to and use of literacy materials in dramatic play areas and their literacy development (Morrow, 1990). Additional longitudinal research to examine literacy development in the context of play of preschoolers would be warranted to answer this question.

Findings of this study are important to professionals in education, including classroom teachers, aides, and speech-language pathologists. Often in preschool classrooms, the teachers are busy helping other children with an activity while the dramatic play area is for children to interact freely without adult involvement. This study provides a practical method for teachers to facilitate preschoolers' literacy development; by having an adult model appropriate uses of literacy materials during free play time for a mere five minutes per week, at-risk preschoolers' literacy behaviors will significantly increase. Children attending Head Start are at-risk for literacy failure and additional emergent literacy support may have a positive effect on their overall literacy development.

In a working draft of the Roles and Responsibilities of Speech-Language Pathologists with Respect to Reading and Writing in Children and Adolescents (ASHA, 2000), SLPs play a role in developing strategies that will prevent literacy problems at risk children and ensuring the existence of opportunities for emergent literacy development. Results from this study suggest that culturally and linguistically diverse children from impoverished communities benefit from adult modeling, especially in the area of demonstrating emergent literacy behaviors. This study supports the role of speech-language pathologists (SLP) who work in classroom-based settings. SLPs who work in classroom-based settings can apply this knowledge or assist teachers with practical methods to facilitate children's literacy development.

Appendix A

Consent Form Approved by the
Human Subjects Institutional Review Board

Department of Speech Pathology and Audiology
Charles VanRiper Language, Speech and Hearing Clinic

Kalamazoo, Michigan 49008-3825

WESTERN MICHIGAN UNIVERSITY
H. S. I.R. B.
Approved for use for one year from this date:
APR 12 2000
x Sylvia Culp
HSIRB Chair

WESTERN MICHIGAN UNIVERSITY

Western Michigan University
Department of: Speech Pathology & Audiology
Principal Investigator: Yvette D. Hyter, Ph.D., CCC-SLP
Student Investigator: Stephanie Kerbel, B.A.

My child has been invited to participate in a project called, "Project TELL: Telling Stories to Support Emergent Literacy and Language Skills." The purpose of this project is to see how telling stories about school and playing with books, paper, and pencils help children to read and write.

My permission for my child to be a part of Project TELL includes counting parts of a story, such as what the people in the story do and how they feel. Also, my permission includes videotaping my child's play in the housekeeping area. As part of this project, I will be asked to fill out a one-page survey that will take about five minutes of my time.

All stories, videotapes, and surveys will remain confidential; no names will be used. Videotapes, stories, and surveys will be kept in a locked file drawer in Yvette D. Hyter's office at Western Michigan University for three years. What children play with in the housekeeping area will be used for Stephanie Kerbel's thesis paper. Any stories or play observations shared with others will be grouped together; that is, parts of my child's stories or play activities will not be known within the group.

There are no risks to my child. My child can decide not to tell a story or I can change my mind about my child participating without changing the services my child gets in the classroom. If an accidental injury occurs while working on this project, appropriate emergency measures will be taken; however, no compensation or treatment will be made available to me or my child, except as otherwise stated in this permission form. If I have any questions or concerns about this project, I may contact Yvette D. Hyter at 387-8025 or Stephanie Kerbel at 341-4625. I may also contact the chair of the Human Subjects Institutional Review Board at 387-8567 or the vice president for research at 387-9298 with any questions.

This permission form has been approved for use for one year by the Human Subjects Institutional Review Board as shown by the stamped date and signature of the board chair in the upper right corner of this paper. Families should not sign this form if the page does not have a stamped date and signature.

My signature below shows that I, as a parent or guardian, can and do give my permission for _____ to participate in Project TELL.
Please Print Child's Name

_____
Name *(Printed)*

_____ _____
Signature Date

Permission obtained
By:
47 _____ _____
Initials of Investigator Date

Appendix B

Head Start 2000 HHS Poverty Guidelines

APPENDIX B

Head Start 2000 HHS Poverty Guidelines

Size of Family Unit	48 Contiguous States and D.C.
1	$8, 350
2	11,250
3	14,150
4	17,050
5	19,950
6	22,850
7	25,750
8	28,650
For each additional person, add:	
	2,900

From http://www.headstartinfo.org

Appendix C

Literacy-in-Play Form

Literacy-in-Play Form

Classroom _____ Examiner _____ Date _____

Time In	Child's Code	Spont. Inter. Or Facil. by Adult *	Play Event	Materials Used	Method of Use	H,UA, UI, T **	Duration (Min.)	Time Out
10:15	*#1*	*Spontaneous*	*Restaurant*	*Pad of paper and pencil*	*Writing down food orders*	*UA*	*10*	*10:30*

* Spontaneous Interaction or Facilitated by Adult

** H= Holding; UA= Used Appropriately; UI= Used Inappropriately; T=Talking About Material

Appendix D

Completed Literacy-in-Play Form

Completed Literacy-in-Play Form

Classroom Head Start Room #1 Examiner Graduate SLP Student Date December 5, 2000

Time In	Child's Code	Spont. Inter. Or Facil. by Adult *	Play Event	Materials Used	Method of Use	H,UA, UI, T **	Duration (Min.)	Time Out
10:15	*Blake*	*Spontaneous*	*Restaurant*	*Pad of paper and pencil*	*Writing down food orders*	*UA*	*10*	*10:30*
10:20	#1	Spontaneous	Telephone	Telephone	Talking in conversation on the phone	UA	2	
10:21	#2	Spontaneous	Shopping	Shoes, purse, and coat	Putting on clothes and going shopping	UA	3	
10:21	#3	Spontaneous	Cooking	Plastic food and dishes	Cooking food and giving to peers	UA	3	
10:24	#4	Spontaneous	Taking baby for walk	Baby, chairs	Pretending to push baby in stroller (using chair as stroller)	UA	2	
10:24	#3	Spontaneous	Cooking	Microwave, plastic food	Heating up food	UA	2	
10:25	#1	Spontaneous	Shopping	Map	Using map to find shopping center	UA/T	1	
10:26	#2	Spontaneous	Driving	Chairs	Pretending to drive using chairs	UA	1	
10:27	#4	Spontaneous	Dress Up	Play clothes	Dressing up in play clothes and holding baby dolls	UA	2	
10:30	#3	Spontaneous	Walking around	Purse, food	Putting food in purse	UA	2	
10:34	#1	Spontaneous	Dancing	Dress-up clothes	Dancing to computer music in dress-up clothes	UA	2	

* Spontaneous Interaction or Facilitated by Adult

** H= Holding; UA= Used Appropriately; UI= Used Inappropriately; T=Talking About Material

Appendix E

Children in Dramatic Play Area During Pre- and Post-Intervention Data Collection

APPENDIX E

Children in Dramatic Play Area during Pre- and Post- Intervention Data Collection

	Classroom A	**Classroom B**
Pre-Intervention	1	1
	2	2
	3	3
	4	4
	5	5
	6	6
	7	7
	8	
	9	
Post-Intervention	1	4
	4	5
	6	8
	10	9
	11	10
	12	11
	13	12

Note. Total number of children in both classrooms was 30. Total number of children participating during data collection was 25.

Appendix F

Copy of Research Protocol Approval Notice from the
Human Subjects Institutional Review Board

Human Subjects Institutional Review Board

Kalamazoo, Michigan 49008-5162
616 387-8293

WESTERN MICHIGAN UNIVERSITY

Date: 4 October 2000

To: Yvette Hyter, Principal Investigator
Stephanie Kerbel, Student Investigator

From: Sylvia Culp, Chair Sylvia Culp

Re: Changes to HSIRB Project Number: 00-02-19

This letter will serve as confirmation that the changes to your research project "Project TELL: Telling Stories to Support Emergent Literacy and Language Skills" requested in your memo dated 3 October 2000 have been approved by the Human Subjects Institutional Review Board.

The conditions and the duration of this approval are specified in the Policies of Western Michigan University.

Please note that you may **only** conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 12 April 2001

BIBLIOGRAPHY

American Speech-Language-Hearing Association. (2000, January). Roles and responsibilities of speech-language pathologists with respect to reading and writing in children and adolescents (Widespread Peer Review Draft).

Baker, L. (1999). Opportunities at home and in the community that foster reading engagement. In J. Guthrie & D. Alvermann (Eds.), Engaged reading: Processes, practices, and policy implications (pp. 105-133). New York: Teachers College.

Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall.

Bryan, J.K. (1996). Kindergarten children's uses of oral language and social interaction in literacy activities during unstructured play, In E.G. Sturtevant & W.M. Linek (Eds.), Growing literacy. (pp.2-16). Harrisonburg, VA: The College Reading Association.

Chaney, C. (1994). Language development, metalinguistic awareness, and emergent literacy skills of 3-year-old children in relation to social class. Applied Psycholinguistics, 15, 371-394.

Davidson, J.I. (1996). Emergent literacy and dramatic play in early education. Albany, NY: Delmar Publishers.

The Department of Health and Human Services (2000). Head start family and child experiences (FACES) survey: New research on head start program quality and outcomes [Brochure]. Washington, DC: Author.

Einarsdottir, J. (1996). Dramatic play and print. Childhood Education, 72, 352-357.

Fey, M.E. (1986). Language intervention with young children. San Diego: College-Hill.

Freire, P. (2000). Pedagogy of the oppressed. 30th Anniversary Edition. New York, NY: The Continuum International Publishing Group Inc.

Freire, P. & Macedo, D. (1987). Literacy: Reading the word and the world. South Hadley, MA: Bergin & Garvey Publishers, Inc.

Goodman, Y.M. (1984). The development of initial literacy. In H. Goelman, A. Oberg & F. Smith (Eds.), Awakening to literacy (pp. 1-14). Exeter, NH: Heinemann Educational.

Hall, N. (1991). Play and the emergence of literacy. In J.F. Christie (Ed.), Literacy and play (pp. 3-26). Albany, NY: New York Press.

Hyter, Y. (2000). Project TELL: Telling stories to support emergent literacy and language. [Unpublished document].

Johnson, J., Christie J., & Yawkey, T. (1987). Play and early childhood development. Chicago: Scott-Foresman.

McCarthy, S. J. (2000). Home-school connections: A review of the literature. The Journal of Educational Research, 93(3), 145-153.

Morrow, L.M. (1990). Preparing the classroom environment to promote literacy during play. Early Childhood Research Quarterly, 5, 537-554.

Morrow, L.M. (2000). Literacy development in the early years: Helping children read end write. Needham Heights, MA: Allyn & Bacon.

Snow, C.E., Burns, M.S., & Griffin, P. (Eds.). (1998). Preventing reading difficulties in young children. Washington, DC: National Academy Press.

Nelson, N.W. (1998). Childhood language disorders in context: Infancy through adolescence. Needham Heights, MA: Allyn and Bacon.

Neuman, S.B. & Roskos, K. (1990). Play, print, and purpose: Enriching play environments for literacy development. The Reading Teacher, 44, (3), 214-221.

Neuman, S.B. & Roskos, K. (1992). Literacy objects as cultural tools: Effects on children's literacy behaviors in play. Reading Research Quarterly, 27, 203-223.

Neuman, S.B. & Roskos, K. (1993). Access to print for children of poverty: differential effects of adult mediation and literacy-enriched play settings on environmental and functional print tasks. American Educational Research Journal, 30 (1), 95-122.

Patton, M.M. & Mercer, J. (1996). "Hey! Where's the toys?": play and literacy in 1st grade. Childhood Education, 73, 10-16.

Paul, R. (1995). Language disorders from infancy through adolescence. St. Louis, MO: Mosby- Year Book, Inc.

Pellegrini, A.D. (1983). Sociolinguistic contexts of the preschool. Journal of Applied Developmental Psychology, 4, 389-397.

Pellegrini, A.D. & Galda, L. (1993). Ten years after: A reexamination of symbolic play and literacy research. Reading Research Quarterly, 28, 163-175.

Purcell-Gates, V. (1996). Stories, coupons and the TV Guide: Relationships between home literacy experiences and emergent literacy knowledge. Reading Research

Quarterly, 31, 406-428.

Scott, J.C., & Marcus, C.D. (2000). Emergent literacy: Home-school connections. In J. L. Harris, A. Kamhi, & K. Pollock (Eds.), Literacy in African American Communities (pp. 77-98). Mahway, NJ: Lawrence Erlbaum Associates Publishers.

Snow, Scarborough, and Griffin (1999). What speech-language pathologists need to know about early reading. Topics in Language Disorders, 20 (1), 48-58.

Street, B. V. (1984). Literacy in theory and practice. Cambridge: Cambridge University Press.Taylor, D., & Dorsey-Gaines, C. (1988). Growing up literate: Learning from inner-city families. Portsmouth, NH: Heinemann.

Teale, W. (1986). Home background and young children's literacy development. In W. Teale and E. Sulzby (Eds.), Emergent literacy: Writing and reading (pp. 173-206). Norwood, NJ: Ablex.

Teale, W.H. & Sulzby, E. (1986). Introduction: Emergent literacy as a perspective for Examining how young children become writers and readers. In W.H. Teale & E. Sulzby (Eds.). Emergent Literacy: Writing and Reading. (pp. vii-xix). Norwood, NJ: Ablex Publishing Corporation.

Vukelich, C. (1990). Where's the paper? Literacy during dramatic play. Childhood Education, 66 (4), 205-209.

Vukelich, C. (1991). Materials and modeling: Promoting literacy during play. In J.F. Christie. (Ed.), Literacy and Play (pp. 215-232). Albany, NY: New York Press.

Warren-Leubecker, A., & Carter, B.W. (1988). Reading and growth in metalinguistic

awareness: Relations to socio-economic status and reading readiness skills. Child Development, 59, 728-742.

Watkins, R.V. (1996). Natural literacy: Theory and practice for preschool intervention programs. Topics in Early Childhood Special Education, 16, (2), 191-212.

Wells, G. (1986). The meaning makers: Children learning language and using language to learn. Portsmouth, New Hampshire: Heinemann.

Westby, C.E. (1995). Culture and literacy: Frameworks for understanding. Topics in Language Disorders, 16 (1), 50-66.