

AN EXPLORATORY STUDY OF EMERGENT LITERACY
DEVELOPMENT AS DEMONSTRATED THROUGH PLAY

by

MICHELLE D. BAKER, B.B.A.

A THESIS

IN

LANGUAGE/LITERACY EDUCATION

Submitted to the Graduate Faculty
of Texas Tech University in
Partial Fulfillment of
the Requirements for
the Degree of

MASTER OF EDUCATION

✓ Approved

December, 1998

805
73
1998
NO. 171
Cop. 2

ALT 0121

ACKNOWLEDGMENTS

I would like to thank the faculty and staff of Texas Tech University College of Education. These outstanding educators have encouraged, supported, and challenged me to become the best teacher I can be. I would like to thank committee members Dr. Margaret Johnson and Dr. Amie Beckett for providing guidance and support throughout my inquiry process. I would also like to thank Dr. Shelly Xu for her help in finalizing this document. Finally, I would like to acknowledge the immeasurable work of my committee chair, Dr. Jeanne Swafford. She has been an inspirational model of a truly reflective practitioner who is dedicated to understanding young children.

I would also like to thank Amy and all her friends in the classroom. These little ones accepted me into their play and generously shared their hearts with me.

Finally, I would like to thank my family. My two children, David and Jessica, have been patient and forgiving as they had to share my time. My husband, Ricky, has supported me in innumerable ways throughout my education and the writing of this thesis. Without his love and support, I could not have completed my master's program. Thus, this thesis is humbly dedicated to him.

TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	ii
ABSTRACT.....	ix
LIST OF TABLES.....	xi
LIST OF FIGURES.....	xii
CHAPTER	
I. INTRODUCTION.....	1
Background of the Study.....	1
Theoretical Framework.....	3
Purpose of the Study.....	5
Research Questions.....	5
Assumptions.....	5
Definitions of Terms.....	6
Methodology.....	8
Site and Participant Selection.....	8
Data Collection.....	9
Participant Observation.....	10
Summary.....	12
Organization of the Study.....	12
II. REVIEW OF RELEVANT LITERATURE.....	14
Introduction.....	14
Theoretical Framework.....	15
Literature Review.....	18
Development of Literacy Skills.....	19
Story Reading.....	20

Emergent Writing.....	22
Environmental Print.....	26
Types of Play.....	26
Literacy Environment.....	27
Time Available for Play.....	28
Design of Play Centers.....	28
Role of Teacher in Play.....	31
Effects of Literacy Environment....	33
Use of Play for Assessment.....	36
Summary.....	37
III. METHODOLOGY.....	39
Introduction.....	39
Research Design.....	39
Making the Familiar Strange.....	40
Context of the Study.....	41
The Classroom.....	42
Participant.....	46
Data Collection.....	48
Entry.....	48
Participant Observation.....	53
Role of Researcher.....	54
Field Notes.....	54
Audio- and Video-Taped Data.....	56
Informal Interviews.....	56
Artifacts.....	58

Data Analysis.....	58
Organizing the Data.....	58
Coding and Categorizing the Data....	60
Developing the Codes and Categories.	62
Organizing the Coded Data.....	64
Description of Categories and Codes.	65
Functions of Print.....	67
Concepts of Print.....	67
Summary of Data Analysis.....	68
Trustworthiness.....	68
Credibility.....	69
Prolonged Engagement.....	69
Persistent Observation.....	70
Peer Debriefing.....	71
Member Checks.....	72
Transferability.....	73
Ethical Considerations.....	75
Informed Consent.....	76
Protection from Harm.....	77
Role of Researcher and Teacher.....	79
Summary.....	80
IV. FINDINGS.....	82
Introduction.....	82
Description of Setting and Participant...	82
The Classroom.....	83

Participant.....	85
Other Members of the Group.....	89
Findings.....	95
Description of Categories.....	96
Functions of Print.....	96
Concepts of Print.....	97
Tables of Category Descriptions.....	98
Narrative Description of Amy's Play.....	108
Home-Living Center.....	108
Cooking Theme.....	109
Restaurant Theme.....	111
Grocery Store Theme.....	114
Block Center.....	118
Puzzle and Manipulatives Center ...	127
Art Center.....	131
Reading Center.....	142
Themed Play Centers.....	146
Office Center.....	147
Fire Station Center.....	151
Animal Hospital Center.....	156
Travel Agency Center.....	163
Camp Site Center.....	167
Functions of Print.....	168
Concepts of Print.....	169
Summary.....	169

V. DISCUSSION, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS.....	171
Introduction.....	171
Limitations.....	171
Discussion of Findings.....	172
Amy's Literacy Demonstrations.....	172
Purposes of Literacy Use.....	172
Functions of Print.....	176
Concepts of Print.....	176
Literacy-Enhanced Environment.....	177
Assessing Literacy Skills.....	179
Feasibility of Play Observations....	183
Theoretical Framework.....	184
Conclusions and Implications.....	186
Teacher Attitudes.....	186
Teacher Modeling.....	188
Context of Play.....	189
Literacy Props.....	189
Concept Building Activities.....	190
Benefits of Play-Based Observations.	191
Classroom Recommendations.....	191
Recommendations for Future Research.....	194
Significance of the Study.....	195
Practice.....	195
Methods.....	196
Research.....	196

Summary.....	197
REFERENCES.....	198

APPENDIX

A: BASIC LITERACY PROPS IN ALL CENTERS.....	203
B: LITERACY PROPS IN HOME LIVING CENTER.....	204
C: LITERACY PROPS IN MANIPULATIVES CENTER....	205
D: LITERACY PROPS IN BLOCK CENTER.....	206
E: LITERACY PROPS IN ART CENTER.....	207
F: LITERACY PROPS IN OFFICE CENTER.....	208
G: LITERACY PROPS IN ANIMAL HOSPITAL CENTER..	209
H: LITERACY PROPS IN FIRE STATION CENTER....	210
I: LITERACY PROPS IN CAMP SITE CENTER.....	211
J: LITERACY PROPS IN TRAVEL AGENCY CENTER....	212

ABSTRACT

The purpose of this study was to explore the use of play as a resource for examining children's emergent literacy development. Specifically the study addressed the following questions:

1. What types of emergent literacy demonstrations do children exhibit while playing in a literacy-enhanced environment?
2. What do these demonstrations reveal about children's knowledge of literacy?

The study took place in my pre-kindergarten classroom, which is a part of the kids-day-out program of a Southern Baptist church in the southwestern United States. The classroom consisted of 10 four- and five-year-old children who were due to start kindergarten in the fall of 1997. The class followed a daily schedule which included a seventy-five minute play period. My observations focused on one five-year-old girl who played in a variety of centers.

This is a participant observation study of a pre-kindergarten child during play in literacy-enhanced centers. Data were collected using the participant observation guidelines of Bogden and Biklen (1982), Glesne and Peshkin (1992), Lincoln and Guba (1985), and Hatch (1995). Descriptive data were recorded

through the use of field notes and video taping. Additional data included a collection of participant artifacts and informal interviews. The data were analyzed using the constant comparison method as described by Bogdan and Biklen (1982).

This study adds to the research base in the area of emergent literacy assessment using play. This study offers implications for practitioners about the importance of including literacy-enhanced play centers and time to play in the classroom. This study also describes how play observations are a useful resource for assessing a child's knowledge of the functions and concepts of print. Further, this study demonstrates how some children more clearly demonstrate their emerging literacy abilities in less structured, authentic settings than on more structured literacy assessments.

LIST OF TABLES

3.1 Excerpt from a Table Used to Organize Data Sources.....	64
4.1 Functions of Print Examples.....	99
4.2 Concepts of Print Examples.....	105

LIST OF FIGURES

4.1	Amy's restaurant order.....	113
4.2	Amy's shopping list.....	116
4.3	Amy's check.....	117
4.4	Amy's and Katie's "No Dogs" sign.....	122
4.5	Amy's circus tickets.....	126
4.6	Examples of environmental print card.....	129
4.7	Amy's yield sign.....	134
4.8	Amy's "Line Starts Here" sign.....	135
4.9	Amy's letter to her mom.....	138
4.10	Envelope.....	139
4.11	Amy's letter to Katie.....	141
4.12	Items produced in office center.....	149
4.13	Items produced in office center.....	150
4.14	Amy's address and map.....	154
4.15	Amy's fire report.....	155
4.16	Example of sign-in sheet.....	158
4.17	Amy's note about Katie's appointment.....	159
4.18	Amy's check list.....	162
4.19	Amy's trip plan.....	166

CHAPTER I
INTRODUCTION

Background of Study

Historically, play has been overlooked as a valuable learning resource in classrooms. In the majority of classrooms, play only serves as an energy-burning activity for children (Moffett & Wagner, 1993). Early childhood educators are faced with expanded academic expectations that have forced them to limit the use of play in the classroom. Most early childhood classrooms maintain a limited play period in their schedule. This play period is often too short and is generally under-utilized by teachers as a curricular tool (Moffett & Wagner, 1993).

Research in the area of emergent literacy development has caused researchers to take a closer look at the relationship between play and literacy development (Christie, 1990, 1991). They have discovered that as children experiment with reading and writing they develop an understanding of the concepts and features of print (Schickedanz, 1986; Clay, 1975 & 1986). Recognizing that much of this experimenting occurs in play has caused researchers to reconsider the role of play in literacy development (Christie & Enz, 1992).

Researchers have discovered that a specially designed literacy-enhanced play environment provides a setting where children can explore the many aspects of literacy (Morrow & Rand, 1990; Neuman & Roskos, 1990). Literacy-enhanced play environments serve to stimulate literacy exploration and development by providing the resources and context for children to incorporate literacy into play. Many studies have been done to help teachers develop literacy-enhanced play environments (Christie, 1990, 1991; Christie & Enz, 1992, Morrow & Rand, 1990; Neuman & Roskos, 1990; Roskos, 1990).

The expanded understanding of the role of play for literacy development has created an excellent opportunity for educators to utilize the literacy-enhanced play environment for emergent literacy assessment. The use of authentic forms of assessment rooted directly in the instructional process is in line with recommendations set forth by the Association for Childhood Education International. These recommendations state that assessment practices need to be "related to best practice, and rooted directly in the instructional process itself" (Perrone, 1991, p. 133).

Research has been conducted to explore the use of literacy-enhanced play environments as a source for emergent literacy assessment. A study by Strickland, Morrow, Vukelich, and Valentine (1990) demonstrated that

a literacy-enhanced play environment is an excellent context for teachers to observe young children's emergent literacy behaviors. Another study by Vukelich (1992) showed that play observations provide teachers an opportunity to discover what children know about the functions of print.

The use of a literacy-enhanced play environment for emergent literacy assessment has not been fully explored. One area that still needs further exploration is the use of play observations in literacy-enhanced play environments that examine pre-literate children's understandings of the functions of reading and writing.

Theoretical Framework

This study is grounded in the theories of Piaget and Vygotsky. The developmental theories of both Piaget and Vygotsky support the assertion that play performs an integral role in a child's development. Some regard Piaget's and Vygotsky's theories as opposing views, but Nicilopoulou (1993) suggests that their theories about play are complementary. She writes that Piaget's research provides an exceptional understanding of the individual nature of children's development through play. Vygotsky extends this perspective to provide a deeper understanding of the socio-cultural aspects of children's development through play.

Piaget (1962) asserted that play is an essential element in the development process. He did not view play as a distinct type of behavior that can be clearly defined. Instead, he viewed play as an orientation to development, a manner in which children accomplish assimilation. He believed that play serves as a functional exercise of cognitive activity. Piaget asserted that children develop symbolic, abstract levels of thought through play. Furthermore, he believed that almost every aspect of psychological development is first enacted in play.

Vygotsky (1978) contended that a child's social culture has a central role in development. According to Vygotsky, optimal development occurs within the zone of proximal development: the area between where the child can succeed independently and where the child can succeed with guidance from a more capable other (Ghatala & Hamilton, 1994; Vygotsky, 1978). Vygotsky emphasized the importance of play as a source of cognitive development through social interaction. He believed that the zone of proximal development is effectively enacted in play. Vygotsky (1978) held that play acts as a transitional stage between concrete thought and symbolism.

Purpose of Study

The purpose of this study was to explore the use of play as a resource for examining children's emergent literacy development. That is, I wish to determine if play observations are a feasible form of literacy assessment for early childhood teachers.

Research Questions

Specifically the study addresses the following questions:

1. What types of emergent literacy demonstrations do children exhibit while playing in a literacy-enhanced environment?
2. What do these demonstrations reveal about children's knowledge of literacy?

To answer these questions, I will observe and document one child's emergent literacy development during play in a literacy-enhanced environment.

Assumptions

Based on the study's theoretical framework, I formulated the following assumptions:

1. While playing in literacy-enhanced play centers, children construct meaning about literacy and fit new information into existing knowledge.

2. As children play, they modify their current understanding about literacy.
3. Play provides an unstructured environment in which children can explore their knowledge of literacy without the constraints of correctness.
4. Through play, children develop representational thought, which aids in their ability to manipulate symbols and leads to an understanding of literacy.
5. While children interact in play, their peers may serve as more knowledgeable others, providing information and cues that encourage literacy development.

Definitions of Terms

For the purposes of this study, the following definitions of key terms apply.

Early childhood teachers- Teacher who teach children who are learning how to read and write. (pre-kindergarten through first grade)

Emergent literacy - Teale (1987) defines emergent literacy as the period of time between birth and the time when children read and write in conventional ways.

Emergent literacy demonstrations - Any attempt a child makes to engage in reading and writing activities or any way in which a child instructs another to engage in reading and writing activities.

Literacy-enhanced play environment - A play environment purposefully designed to encourage literacy development. This design includes attention to: (a) the physical layout of the play centers, (b) the types of play centers available, (c) the availability of reading and writing materials in the play centers, (d) teacher attitudes and modeling in the play centers, and (e) concept building activities used to build background knowledge for play.

Literacy - Literacy involves the use of print to construct and communicate meaning.

Play - Garvey (1977) describes four criteria that must be met for an action to be considered play: (a) Play is spontaneous and voluntary. The child must have the freedom to choose whether or not to be involved in the activity and when to switch activities. (b) Play has no extrinsic goals. The child's motivation is intrinsic and serves only self-initiated goals. (c) Play is pleasurable and enjoyable. The child must positively value the activity. (d) Play involves active engagement on the part of the player. Spectators of the play are not considered players.

Play Schemes - Play that involves children facilitating the play by setting up a scene, designating roles and assigning props (Roskos, 1990).

Pre-writing - Writing in emerging forms including scribble writing, mock writing, letter strings, and inventive spelling (Schickedanz, 1986).

Methodology

This qualitative study uses naturalistic inquiry to explore the use of play as a resource for examining children's emergent literacy development. Naturalistic inquiry is appropriate for my study for three reasons. First, observing in a natural setting allows me to examine what knowledge children demonstrate about literacy in authentic situations. Second, observation and field notes allows me to document how children naturally incorporate literacy into their play. Third, naturalistic observation allows me to determine if play observations are a feasible form of literacy assessment for the early childhood classroom teacher.

Site and Participant Selection

The study took place in my pre-kindergarten classroom, which was a part of the kids-day-out program of a Southern Baptist church in the southwestern States. The classroom consisted of 10 four- and five-year-old children who were due to start kindergarten in the fall of 1997. The class followed a daily schedule which included a seventy-five minute free play period, art,

snack, hands-on learning centers, phonics instruction, lunch, nap, and story time.

The classroom play centers consisted of a reading center, puzzles and manipulatives center, home-living center, block center, art center, and a themed play center that changed according to unit topics. The play centers were infused with literacy props and labels. The design of the play centers was consistent with the literature that describes literacy-enhanced play centers, especially the work of Neuman and Roskos (1990) and Morrow and Rand (1990).

I purposely selected (Lincoln & Guba, 1985) one pre-kindergarten child as the participant for this study. Amy (pseudonym) was a very active five-year-old who played in a variety of centers and attended class regularly. Amy appeared to have relatively average literacy abilities. After observing her in formal instructional context and informal play contexts, I suspected that she did not demonstrate her literacy abilities to the fullest extent in formal instructional settings. This made her an optimal participant for this study.

Data Collection

This is a participant observation study of a pre-kindergarten child during play in literacy-enhanced play

centers. I collected data using the participant observation guidelines of Bogdan and Biklen (1982), Glesne and Peshkin (1992), Lincoln and Guba (1985), and Hatch (1995). I recorded participant observation data through the use of field notes, audio tapes, and video tapes. Additional data include a collection of participant artifacts, informal interviews, and reflective field notes.

Participant Observation

I acted as a participant observer in the play centers. Being a participant observer "entails a way of being present in everyday settings that enhances your awareness and curiosity about the interactions taking place around you" (Glesne & Peshkin, 1992, p. 54). Researcher participation in a research setting can range from complete observer (one who has no participation in the setting) to a fully participating member of the group (Bogdan & Biklen, 1982). In my case, I took several roles in the classroom. At times I was a simple observer only sitting back and watching the play, and at times I acted as a fully participating member of the group as a player in the centers.

Participant observation is appropriate for this study for three reasons. First, my role as player made it possible for me to provide support and modeling

during literacy-directed play. Second, my role as participant observer made it possible for me to engage in informal interviews with Amy during the play periods. Third, my role as teacher made it possible to determine if play observations are a feasible form of literacy assessment for classroom teachers.

My role in the play centers varied from one play episode to the next. Depending on the situation, I took the roles of onlooker, player, and leader, as suggested by Neuman and Roskos (1993). I was often an onlooker of the play. An onlooker does not take a role in the play but provides an audience for the play. According to Neuman and Roskos (1993), children enjoy having an adult simply add validation to their play by acting as an audience. I also entered into the scene as a player. In this role I took all my play cues from the children, but I interjected literacy demonstrations into the play when they fit naturally into the play scheme the children had developed. On very few occasions I engaged in the leader role. The only time I took this role was when the children seemed to need direction in using the literacy props. By taking a variety of roles I was able to adjust my behavior to fit a variety of situations.

Summary

Chapter I outlines the background and theoretical framework of this study. First, I presented the purpose of the study, related research questions, and definitions. Second, I defined the terms related to this study. Finally, I explained the rationale for using qualitative inquiry and briefly described the methods.

Organization of the Study

Chapter II reviews literature that describes how current educational researchers are approaching the issues of play. I discuss how the developmental theories of Piaget and Vygotsky support the assertion that play has an integral role in a child's literacy development. Then I review literature that explains the role of play in the emergent literacy classroom. Finally, I discuss the use of authentic literacy assessment.

In Chapter III, I explain the rationale for using a qualitative research design. I describe the context of the study and the rationale for choosing the participant. I also describe the use of reflective and descriptive journals. In addition, I explain how audio taping, video taping, informal interviews, and artifact collections were used throughout the study. I explain the process used to code and categorize data. I also give a brief description of the final categories and

codes. Finally, I address the issue of trustworthiness and consider ethical concerns.

In Chapter IV, I first provide a fuller description of the research setting and participant. Second, I give a detailed description of Amy's play and relate these actions to my codes and categories. Third, I discuss the findings related to the research questions.

In Chapter V, I present a discussion. First, I describe the limitations of the study. Second, I discuss the findings of my study, Third, I offer conclusions and implications I have drawn from my study. Fourth, I give recommendations from my study. Finally, I address the studies significance.

CHAPTER II
REVIEW OF RELEVANT LITERATURE

Introduction

In Chapter II, I review literature that describes how current educational researchers are approaching the issues of play. First, I discuss how the developmental theories of Piaget and Vygotsky support the assertion that play performs an integral role in a child's developmental process. Second, I explain how Piaget's and Vygotsky's perspective on play can be seen as complementary. Then, I describe how Piaget and Vygotsky propose that play influences development in general and literacy development in particular.

In Chapter II, I also review literature that outlines children's literacy development and defines the role of play in the emergent literacy classroom. First, I outline the types of emergent literacy skills children develop as they acquire literacy. Second, I define the types of play in which children tend to engage. Third, I discuss the design of literacy-enhanced centers. Fourth, I present conflicting studies on the role of teachers in play. Fifth, I overview selected studies that examine the effects of literacy enhanced play environments on children's emergent literacy development. Finally, I describe the use of play for literacy assessment.

Theoretical Framework

The developmental theories of both Piaget and Vygotsky support the assertion that play performs an integral role in a child's developmental process. Many people regard Piaget's and Vygotsky's developmental theories as opposing views, but Nicilopoulou (1993) suggests that their perspectives on play are complementary. She writes that Piaget's research provides an exceptional understanding of the individual nature of children's development through play. Vygotsky extends this perspective to provide a deeper understanding of the socio-cultural aspects of children's development through play.

Piaget believed that all children are naturally inclined to learn and develop by seeking equilibrium in their lives. Equilibration is the tendency to reduce cognitive conflict through the use of assimilation and accommodation (Piaget, 1962). Piaget (1962) asserted that play is an essential element in the development process. He did not view play as a distinct type of behavior that can be clearly defined. Instead, he viewed play as an orientation to development, a manner in which children accomplish assimilation. Furthermore, he believed that almost every aspect of psychological development is first enacted in play. He saw play as a functional exercise of cognitive activity.

According to Piaget, play provides a non-threatening environment in which children can enact their emerging cognitive abilities. In play children can exercise and experiment with skills they have not completely mastered without the constraints of correctness. In essence, play provides a springboard for development. For example, Piaget believes that children develop an idea about symbols by using objects in a symbolic fashion during play. These concepts transfer to later, more sophisticated ideas about symbols. In this way, play acts as an exceptional resource for young children's cognitive development.

Vygotsky (1978) contended that a child's social culture has a central role in development. He believed that optimal development occurs when a child is given an opportunity to interact with a more capable other. According to Vygotsky (1978), optimal development occurs within the zone of proximal development: the area between where the child can succeed independently and where the child can succeed with guidance from a more capable other (Ghatala & Hamilton, 1994). Vygotsky (1978) viewed the act of constructing meaning within society as the most significant part of cognitive development. According to Vygotsky, this meaning is best constructed in play, which he considered inherently social in nature.

Vygotsky asserted that play holds a central role in the developmental process. Like Piaget, Vygotsky believed that it was through play that children develop symbolic, abstract levels of thought. Vygotsky (1978) viewed play as a transitional stage between concrete thought and full symbolism. He emphasized the importance of play as a source of development through social interaction. According to Vygotsky (1967):

In play a child always behaves beyond his average age, above his daily behavior; in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development (p. 16).

The development of symbolic thought through play is an important step in the development of literacy skills.

Through socialization with a more capable other children can gain valuable insight that leads to cognitive development (Vygotsky, 1967, 1978). Young children can act as more capable others to one another in play. In play the children have the opportunity to share their developing knowledge about literacy. Each child brings his or her own knowledge and experiences to the play setting. No one child acts as the shining star, rather each child in the setting has his or her own time in the spotlight. Each child possesses knowledge that serves to enhance the abilities

of the other children. For example, most children learn the letters in their own names before they learn the entire alphabet. When each child enters the play setting he or she brings this very personal knowledge into play. This knowledge can then act as a learning resource for other children.

The manner in which Piaget and Vygotsky asserted that play encourages cognitive development is particularly important for the development of literacy skills. Both Vygotsky and Piaget believed that play is the primary mechanism through which children learn to develop representational thought. In play, children often use objects to stand for something outside of the immediate context. A child's first experience with the use of symbols is within the act of play (Piaget, 1962; Vygotsky, 1967). Understanding the concept of symbolic representation is a very important element in the development of literacy skills. To gain a true understanding of the functions of print, children must be able to manipulate symbols; play provides an excellent forum for this development.

Literature Review

The literature reviewed below examines how current educational researchers approach the issue of emergent literacy and play. Exploring this research helped me to

identify six research strands related to my study. First, I review literature outlining the types of skills that are developing as children acquire literacy. Second, I review literature that defines the types of play in which children tend to engage. Third, I review literature describing play environments most conducive to literacy-directed play. Fourth, I present conflicting studies concerning the teacher's role during play. Fifth, I discuss literature on the use of play observations as an authentic assessment device. Finally, I overview various studies that outline the effects of a literacy-enhanced play environment on children's emergent literacy development.

Development of Literacy Skills

Learning how to read and write involves much more than an understanding of letter sound relationships or the ability to form alphabetic letters. Hall (1987) lists a number of concepts that must be grasped before a child can learn to read.

1. Print carries a message.
2. Books and print have a certain orientation.
3. We read and use books in a particular order.
4. Print contains letters and words.
5. Print contains spaces.
6. Print and speech are related.

7. Print contains punctuation.
8. Print is different from pictures.
9. There is a language associated with print.

The child must also grasp the concepts of style and audience in order to be an effective writer (Schickedanz, 1986).

The importance of the early childhood years has been emphasized over and over in the popular press. We now know that young children begin the process of learning how to read and write far sooner than previously believed. Researchers have demonstrated that story reading, emergent writing, and environmental are print three emergent literacy activities that have profound effects on literacy acquisition.

Story Reading. Early childhood researchers have noted many concepts of print that children seem to gain by listening to books being read to them. First, children gain a basic understanding of how books work. This basic understanding is a fundamental part of learning to read. For example, through story reading children come to understand that books are read from front to back, left to right, and top to bottom. Possessing this knowledge provides children with an important comfort level and familiarity that gives them an edge on learning to read (Schickedanz, 1986).

A second literacy skill that children develop through story reading is that print makes sense. Children gain an understanding that letters and words are placed together in a meaningful way (Schickedanz, 1986). They come to understand that there is a specific message to be read and the sequencing of letters and words is very important (Clay, 1991). This understanding is important to future reading success, because good readers monitor whether the text makes sense, predict as they read and monitor their decisions about what words they are reading (Schickedanz, 1986).

A third literacy skill that children develop through story reading is an understanding that print and speech are related. Understanding that the words on a page and the sounds a child hears are related is a fundamental part of learning how to read and write. Children will develop many hypotheses about the functions of print before they come to a complete understanding of the relationship between speech and print. Familiar stories act as an important resource as children first become interested in figuring out how print works (Schickedanz, 1986).

A fourth literacy skill that children develop through story reading is that story-books contain a special type of language. As children are read to, they begin to understand that written language has its own

style and formality; they begin to develop an ear for book talk. Through story reading children learn story schema, plot structure, anticipation of events, and how language is used to create surprise, climax, and humor (Clay, 1991). Children who know what a book should sound like have an advantage when decoding the print they encounter in books (Schickedanz, 1986).

A fifth literacy skill that children develop through story reading is an understanding that it is the print, not the picture, that holds the message. A study by Clay (1975) determined that when young readers first begin to experience books they make no distinction between the pictures and text. Next they expect the text to be a label for the picture. Finally they come to understand that the picture can provide clues about the text, but it is the text that carries the message. This understanding provides the developing reader with a valuable strategy for decoding text (Clay, 1991).

Emergent Writing. Another key element in literacy development is children's own attempts to use writing. Clay (1975) maintains that children develop knowledge about the functions and features of print as they attempt to convey meaning through writing. In order to communicate through writing a child must construct the message, letter by letter, word by word. In doing so the developing writer becomes aware of the various features

of print. The developing writer gains a sense of the hierarchy of language units: sentences, phrases, words, and letter sounds. The developing writer must pay attention to all the features present in the language hierarchy in order to create a message (Clay, 1975).

Children's first attempts at writing may appear to be nothing but scribbles. A closer examination, however, reveals that these scribbles have many characteristics that resemble print (Schickedanz, 1986). There is no standard developmental sequence in which children develop the ability to write, but a child's early attempts at drawing and scribbling develop into later writing behavior (Clay, 1975). The type of writing children engage in is dependent on their exposure to print experiences, the purpose for writing, and the child's attention span (Schickedanz, 1986).

Children's writing goes through many stages before it reaches a conventional form. Early writers enjoy simply putting pencil to paper with no apparent type of pattern. These formless scribbles are the child's first attempt at writing. As the child's control of the pencil and exposure to print increases, he or she will engage in scribble writing that contains more form and repetitive patterns. Soon the child begins experimenting with how lines and curves are combined to form letters and incorporating letter-like forms (mock writing) into

their writing. As the child learns conventional letter forms he or she will include these with the mock letters to create writing. Gradually the child will give up the mock letters using only real letters to form letter strings. As the child learns more and more about writing, these letter strings will develop into conventional writing (Clay, 1991; Schickedanz, 1986).

By analysing the writing samples of five-year-old children during the first two months of formal schooling, Clay (1975) formulated five concepts that she believes children understand about print. One concept that Clay believes develops relatively early is the sign concept. In the early stages, children learn that a sign (letter) carries a message. The child's hypothesis at this time may be immature. For example, the child may believe that the sign is complete in itself rather than a representation of an alphabetic letter, or the child may believe that the signs are somehow related to the physical make-up of the object (Clay, 1975).

A second concept Clay formulated is that children often use recurring patterns in their writing. She hypothesizes that this occurs when a child begins to understand that letters and words reoccur in the English language. Children often overgeneralize this principle and use repeated letters, words, or sentences to create a longer message. As the writer develops, he or she

learns the limitations of this principle in conventional writing (Clay, 1975).

Third, Clay observed that children develop interesting hypotheses about how print is organized in two dimensional space. She found that careful examination of a child's writing offers clues of what the child understands about the organization of print. Clay calls this the directionality principle (Clay, 1975).

Fourth, while observing the writing of young children, Clay noticed that children often combine known elements in different ways to create an invented message. She calls this the generating principle. She saw evidence of this principle in letter strings when children took the limited signs they knew and combined them in a variety of ways to create a longer string. She also noticed this in children's attempts at writing words. She found that children tend to invent words out of known letters by combining them in a variety of forms and adding spaces (Clay, 1975).

Fifth, Clay was surprised to learn that young writers often take an inventory of their own literacy knowledge, and they deliberately use abbreviations in writing. The children use a variety of methods to inventory their knowledge; these inventories may include known letters, words, or numbers. Clay was also

surprised to learn that some advanced young writers deliberately use abbreviations to represent entire words. She noted that abbreviations rarely occur, but the children who use abbreviations are demonstrating an advanced concept about how language works (Clay, 1975).

Environmental Print. Children develop ideas about literacy through their exposure to environmental print. Through environmental print children learn a great deal about literacy. They learn that writing communicates a message and that print has many functions (Hall, 1987). Contextualized environmental print helps children recognize letters, associate sounds with letters, and begin to develop concepts about reading (Schickedanz, 1993). The knowledge children gain through environmental print exposure can be applied to other language sources in order to facilitate literacy development (Hall, 1987).

Types of Play

In this section I examine the types of play in which young children tend to engage. Kathy Roskos (1990) developed a taxonomy of preschool children's play activities based on a six-month study of preschool children in a classroom setting. She describes four basic types of play. The first type of play is the manipulation of concrete objects. These objects are often the scaled down version of real items, such as

cars, baby dolls, or dishes. This type of play generally begins with the phrase "play with;" for example, play with cars, play with dolls and so on. The second type of play involves the manipulation of items, such as clay or sand, to construct something to be used in play. This type of play usually begins with a take and make stage, that results in a "play with" episode. The third type of play consists of children role playing people they encounter in their environment. In this type of play children enact a role for a short period without the support of other playmates or props. The fourth type of play involves children making up entire play schemes. Children designate roles, set the scene, and assign props in order to facilitate play (Roskos, 1990).

Literacy Environment

Christie (1990; 1991) found that, in order to facilitate literacy-directed play, attention must be given to (a) the time allocated for play, (b) teacher involvement during free play periods, and (c) the design of the literacy-enhanced play centers. Christie and Enz (1992) stressed that teachers must continually observe, manipulate, and change the environment to encourage literacy-enhanced play.

Time Available for Play. The length of time available for play is an important element in the development of a literacy-enhanced play environment. Christie, Johnson, and Peckover (1988) found that children are more likely to engage in rich, sustained play schemes if play periods are twenty minutes or longer. Children need time to recruit players, designate props, and agree on the play scheme. Children will not invest their energy into developing a play theme if they do not have enough time to complete the play (Christie, 1990).

Design of Play Centers. When designing literacy-enhanced play environments there are many elements that must be considered. First, one must examine the general design of the play centers. Roskos (1990) found that smaller, more intimate, well-defined play centers promote task involvement and interaction among young children. Cupboards, screens, and hanging mobiles should be used to define the different play centers. She suggests that literacy enrichment centers should be clustered away from noisier centers to encourage interactive play. Furthermore, centers with related play themes should be clustered together to encourage movement between centers so a sustained dramatization is maintained (Roskos, 1990).

Other researchers suggest that the number of labels and environmental print in play centers should be increased when designing a literacy-enhanced play environment. Neuman and Roskos (1990) found that the insertion of labels and environmental print into play centers served many purposes for the emergent reader. First, the labels gave children a reference tool for their own writing. Second, labeling facilitated the use of literacy props by making them more visible and accessible. Third, labels increased the frequency of children's use of environmental print within play. Finally, labels helped to cut down on cleanup time and kept the play centers more organized (Neuman & Roskos, 1990).

Keeping the play center organized is also an important consideration in developing a literacy-enhanced play environment. Gordon (1993) stressed that organized play centers are important because overcrowded, messy centers are a major inhibitor to pretend play. Neuman and Roskos (1990) recommend that the number of play items in any one center should be limited to help maintain organization. The play items should revolve around a limited number of themes with the themes changing periodically. Neuman and Roskos (1990) also recommend the use of plastic tubs and labels to help aid in organization.

Another important consideration in designing a literacy-enhanced play environment is the insertion of literacy props into play centers. Literacy props are play items designed to encourage reading and writing. Neuman and Roskos (1990) propose three criteria for selecting literacy props. First, the prop must be appropriate. To be appropriate the prop must be one that can be used naturally and safely in a given play scheme. Second, the prop must be authentic. To be authentic the prop must be a real item the children might find in their home or school environment. Third, the prop must be usable. To be usable children must be able to use the prop for some function during play.

Finally, careful attention should be given to the types of play centers available. Morrow and Rand (1991) recommend that play centers correspond to a topic the children are currently studying. Classroom themes enhance children's play by developing background information and generating interest. Building on the work of Woodard (1984), Christie (1990) recommends that one center should be introduced at a time, left for several weeks, then transformed, using another theme. Changing the theme renews interest when the other theme has been played out. Morrow and Rand (1991) recommend these themed centers: restaurant, newspaper office, post office, gas station, repair shop, and animal hospital.

Role of Teacher in Play. Most research suggests that teacher involvement during play positively impacts children's literacy engagement. Morrow and Rand (1991) found that teacher modeling greatly increases the children's literacy activities if modeling occurs within the context of play. In this study, the teachers interacted with the children during play by using authentic modeling and unobtrusive suggestions as the play unfolded.

Morrow and Rand's (1991) findings are consistent with the results of a study by Roskos and Neuman (1993). They concluded that many different types of teacher interactions seem to promote literacy behaviors if they take place within the context of play. The three types of teacher interactions they deemed most appropriate include onlooker, player, and leader. The onlooker role consisted of a teacher merely watching the play with expressions of interest and giving verbal approval when appropriate. This role seemed to support children's literacy exploration by providing a nurturing environment in which appropriate feedback was given. The player role consisted of teachers taking an active role within the play scheme that the children had developed. As a player, the teacher took her cues from the children but used appropriate literacy behavior when applicable. The leader role consisted of the teacher deliberately

taking steps to structure children's play. This took place most often when the teacher introduced new literacy items into a center or when a new play theme was being introduced into a classroom.

Other studies also point to the importance of adult involvement in play. Schrader (1990), Christie and Enz (1992), Galda, Pellegrini, Dresden, and Cox (1989), Pappas and Brown (1987), and Teale (1987) all point to the importance of adult involvement in play. Vukelich (1991) found, however, that adult involvement in play can be detrimental. Her work suggests that when adults model the use of literacy props, the frequency of children's literacy activities decreases.

The reason for these disparate research results may lie in how the modeling occurred in Vukelich's study compared to other studies. In Vukelich's study, the teachers used a lecture-type format before the play period to model how children could use the literacy props. This type of adult involvement differed greatly from other studies in which adults modeled literacy use within the context of child-directed play. In a later study, Vukelich (1994) revised her original conclusions. In this study she determined that adult involvement in play is advantageous if the adult does not take a leadership role.

Effects of Literacy-Enhanced Play Environment

Neuman and Roskos (1990) concluded that careful attention to the play environment causes literacy behaviors to change in several ways. First, they observed that literacy in play became more purposeful. The literacy behavior became part of an ongoing play flow, rather than a simple literacy task. Prior to introducing the literacy-enhanced environment, the children would only engage in literacy behaviors as a part of a brief literacy exploration, such as picking up a book and quickly leafing through the pages. After more literacy props were introduced into the play environment, literacy served a direct purpose within a more elaborate play scheme. For example, after the environment was enhanced the children engaged in games like post office in which literacy was incorporated into every aspect of the play.

Second, Neuman and Roskos observed that literacy behaviors became more situated. The literacy-enhanced play centers provided a context for the use of literacy in play. The props offered children resources and cues they could use to scaffold their literacy interactions. The literacy behaviors became a substantial part of the play rather than a quick literacy demonstration. For example, after enhancing the centers two children played office for twenty-two minutes, continually engaging in

literacy-directed play. The office materials gave the children the resources they needed to develop a literacy-rich play scheme. The literacy-enhanced center provided a meaningful context for the children to engage in reading and writing behaviors.

Third, Neuman and Roskos (1990) observed that literacy behaviors became more connected and interactive in a literacy-enhanced play environment. Before the centers were enhanced literacy behaviors seemed to be a diversion from the existing play themes. The literacy behaviors were generally quick in duration, with no connection to the current play theme. After the centers were enhanced, the literacy in play generally focused around an ongoing play theme. Within this play context, the literacy behaviors tended to involve two or more children interacting with one another rather than a solitary play incident where a child briefly chose to pick up a book or draw.

Most importantly, Neuman and Roskos observed that children's literacy behaviors became more role-defined. The enhanced play environment encouraged children to act out roles using literacy materials in an interactive manner. This increased interaction allowed children to extend their own knowledge of literacy and expand the knowledge of their peers. From a Vygotskian perspective, this type of interaction moves children's development

forward. By enacting roles, the children also used a great deal of symbolism in their play. From a Piagetian perspective the use of symbolism in play helps children develop representational thought, which is a huge developmental leap.

Morrow and Rand (1990) found that literacy-enhanced play centers had a profound effect on literacy-directed play in the classroom. The researchers drew the following conclusions: (a) all types of literacy enrichment encourages literacy-directed play; (b) themed play areas will encourage longer, more focused, interactive, dramatic play that is infused with literacy demonstrations; (c) literacy props encourage play infused with literacy behaviors; (d) teacher involvement in a play context encourages literacy behaviors; and (e) increases in literacy behaviors remain steady over time.

Further studies demonstrate the importance of including play as a part of the early childhood curriculum. Vukelich (1994) found that high exposure to environmental print in the context of play increased children's ability to read environmental print. Christie and Enz (1992) found that a literacy-enhanced play environment influenced the amount and type of literacy behaviors during play. Pellegrini, Galda, Dresden, and Cox (1991) found that children's use of symbolic play predicted emerging writing and reading ability. Bryan

(1995) found that play observations provide a means of understanding the relationship among oral language, social interaction, and literacy as children develop an understanding of the communicative nature of literacy.

Use of Play for Assessment

Literacy-enhanced play environments can be rich settings for assessing children's emerging literacy. Yetta Goodman (1978, 1985) describes "kidwatching" as "learning about children by watching how they learn" (Goodman, 1985, p. 9). Goodman (1985) contends that by watching children interact with their peers in a supportive environment, the teacher can come to understand and support children's language development. Goodman (1978) further states that the role of school is to provide children with an environment that can expand their use of language in a variety of settings and situations. The use of play-based assessment has the potential to meet both of these goals.

Other researchers also suggest that teachers can evaluate children's literacy skills by observing a child in a literacy-enhanced environment. Morrow, Strickland, Valentine, and Vukelich (1990) corroborate this point in a study of kindergarten children during free play. Using naturalistic observation, the researchers illustrated that the teacher (Valentine) could effectively observe a

child for assessment purposes and continue to teach the rest of the class. In her 1992 study, Vukelich used play observations to describe the knowledge one child demonstrated about print. Through these observations, she determined that the child's knowledge of print is much greater than what the traditional pencil and paper tests revealed. These studies just begin to scratch the surface of the potential for using literacy-enhanced play environments as a setting for authentic emergent literacy assessment. My study expands on the work of Vukelich (1992) and Clay (1975) to describe how one child can demonstrate her knowledge of the functions and concepts of print within the context of a literacy-enhanced play environment.

Summary

In Chapter II, I reviewed literature that described how current educational researchers are approaching the issues of play. First I discussed how the developmental theories of Piaget and Vygotsky support the assertion that play performs an integral role in a child's developmental process. I discussed how Piaget's and Vygotsky's perspectives on play can be seen as complementary. Then, I described how Piaget and Vygotsky believe play influences development in general and literacy development in particular.

In Chapter II, I also reviewed literature that explains the role of play in the emergent literacy classroom. First, I outline the types of skills develop as children acquire literacy. Second, I defined the types of play in which children tend to engage in. Third, I discussed the design of a literacy-enhanced play environment. Fourth, I discussed the role teachers should take in play. Fifth, I overview selected studies that examine the effects of literacy-enhanced play environments on children's emergent literacy development. Finally, I described the use of play for literacy assessment.

CHAPTER III

METHODOLOGY

Introduction

In Chapter III, I explain the rationale for using a qualitative research design. I describe the context for the study and provide a rationale for the participant selected. I also describe the use of reflective and descriptive journals. In addition, I explain how I used audio taping, video taping, informal interviews, and artifact collections throughout the study. I describe the data analysis procedures, which include the process used to code and categorize the data. A brief description of the final categories and codes is also included. Finally, I address the issue of trustworthiness and consider ethical concerns.

Research Design

This is a participant observation study of a pre-kindergarten child during play in literacy-enhanced centers. Data were collected using the participant observation guidelines of Bogdan and Biklen (1982), Glesne and Peshkin (1992), Lincoln and Guba (1985), and Hatch (1995). Descriptive data were recorded through the use of descriptive field notes, audio taping, and video taping. Additional data include a collection of

participant artifacts and informal interviews. In the following sections I will describe the context of the study, data collection procedures, and data analysis methods.

Making the Familiar Strange

One key element of this study was looking at the familiar action of children's play in order to come to a deeper understanding of the thought processes that underlie that play. In qualitative research, the researcher often seeks to make the familiar strange in order to more carefully examine the meanings of these familiar events (Eisner, 1991). Assessing the familiar can often be a difficult task because most people fail to recognize the unique characteristics of their own familiar settings (Eisner, 1991). The familiar is, in a sense, the strangest phenomenon a qualitative researcher can observe.

In educational settings, examining the familiar can often be very difficult because the familiar is often the mundane (Jackson, 1990). Some of the most renowned educational researchers have confessed to being lulled to boredom, at times even asleep, when they attempted to observe in an educational setting. Therefore, a natural temptation exists to seek out the dramatic, troublesome, or unexpected events in the classroom looking over the

mundane in search of the exciting (Jackson, 1990). This, however, is not the aim of qualitative research. For the qualitative researcher, making the familiar strange does not mean presenting the unique events that occur in the midst of the ordinary. Instead, it means looking at the ordinary events of a setting with a renewed sense of curiosity and wonder (Eisner, 1991). In order to come to an understanding of what a child's play revealed about her knowledge of literacy, I looked at the ordinary event of simple play and focused my attention on how the child incorporated literacy into her play.

Context of the Study

This is a participant observation study of a pre-kindergarten child during play in literacy-enhanced centers. Initial observations occurred from September 1996 to December 1996. During this time I sought to develop a relationship with the child, establish basic play center routines, and fine-tune the design of the literacy-enhanced play centers. I collected participant observation data from mid-January 1997 to mid-May 1997. Throughout this 19-week period, I observed one pre-kindergarten child during a 75-minute free play period each class session. In the following section, I will first describe how I closely looked at the familiar action of play. Then I will describe the context of the

study including a description of the classroom and participant.

The Classroom

The study took place in my pre-kindergarten classroom, which is a part of the kids-day-out program of a Southern Baptist church in the Southwestern United States. The classroom consisted of 10 four-and five-year-old children who were due to start kindergarten the next fall. The class followed a daily schedule which included one 75-minute free play period, art, snack, hands-on learning centers, phonics instruction, lunch, nap, and story time.

The school implemented the Abeka book curriculum. This curriculum is a phonics-based, work sheet driven program. Due to the constraints of this program our daily schedule included a phonics instruction period and time to complete work sheets. I refer to this time as the more formal instructional period. The remainder of our day consisted of less structured, hands-on learning and exploration.

I purposively selected this classroom setting for three reasons. First, pre-kindergarten classrooms have access to longer unstructured play periods than classrooms with older children. Second, pre-kindergarten children are just beginning to explore the world of

print, which makes them appropriate participants for an emergent literacy study. Third, my position as teacher in this classroom gave me a special opportunity to develop trust, rapport, and understanding with these children. Hatch (1995) advocates that the uniqueness of the early childhood setting requires that the researcher develop a deep relationship with participants in order to come to a level of understanding of their world.

The play centers were infused with literacy props and labels. The design of the play centers was consistent with the literature that describes literacy-enhanced play centers, especially the work of Neuman and Roskos (1990) and Morrow and Rand (1990). The individual centers were separated from one another using tables and shelves. I used labeled storage containers and cupboards with pictures and words to organize the centers. To avoid excessive clutter, I limited the number of play items present at one time, changing the items periodically to facilitate new play themes and interest. The classroom play centers consisted of a home-living center, block center, themed play center that changed according to unit topics, art, puzzles and manipulatives, and a reading corner. Children self-selected play centers, but only three to four children were allowed in each center at a time.

To facilitate literacy-directed play in the home-living center, I added many literacy props. I set place mats on the table that included pictures and labels of food items. I positioned a telephone message pad and telephone book next to the phone. I placed wallets and purses stocked with play money, checks, business cards, movie rental cards, appointment books, and pens with the dress-up clothing. I set out baby care items (e.g., a baby wipe container, formula can, baby food jars, and empty powder and lotion containers) with the baby dolls. I added cookbooks, a recipe folder, blank index cards, note pads, stationary, envelopes, catalogs, pens, and a calendar to the kitchenette area. I also put laminated coupons in a holder and store advertisements in the grocery cart.

Adjacent to the home-living center was a small puzzle and manipulatives center. This center contained puzzles, games, and manipulatives. Only three or four items were available in this center at a time, with the items changing daily. The items in this center were designed to encourage exploration, problem solving, letter identification, and small motor development.

The block center contained various types of blocks and play props that were changed according to the the unit we were studying. During the data collection period, the props available in the block center revolved

around the following units: building and construction, auto repair, transportation, jungle animals, farm animals, and the circus. The literacy props changed according to the current classroom focus. For example, when the class was studying buildings and construction, the literacy props fit that theme. These props included real blueprints, floor plans, tool catalogs, work orders, paper of various sizes, pens, pencils, markers, and blue grease pencils.

The art center consisted of a table stocked with various art supplies that changed according to the daily projects. The center always contained paper of various sizes, pens, pencils, markers, crayons, glue sticks, and scissors. Other supplies were offered when needed for a project. The daily projects were centered around classroom themes. The projects were designed to encourage creativity and initiative. Children were encouraged, but not required, to include writing in their art. As the teacher, I maintained flexibility in the art projects, allowing the children to pursue topics and projects in which they were interested. All children had to go to the art center during the 75-minute free play period. My classroom assistant remained at the art center the majority of the play time.

The reading center consisted of a book shelf stocked with a variety of books. The selections included

books related to particular units of study, old classroom favorites, poetry, rhyming books, and books with simple repetitive texts. The center also contained child-size lounge chairs, pillows, and stuffed animals. The books were changed periodically to stimulate interest, but some old favorites were always left in the reading center.

The themed play center changed periodically according to the unit being studied. The design of this center offered an explicit context for play and opportunities for children to use literacy as a natural outgrowth of their play. During the course of data collection the following themed play centers were available: animal hospital, office, fire station, camp site, and a travel agency.

Participant

Lincoln and Guba (1985) state that the researcher must selectively determine from whom the data will be collected. This selective sample must be based on the purpose of the study. The participant selected must also be able to provide as much detail as possible in order to provide insights that lead to understanding the uniqueness of the context (Lincoln & Guba, 1985). My study focused on the emergent literacy demonstrations of one pre-kindergarten child, Amy, during play.

I purposively selected Amy (pseudonym) as the primary focus of this study for many reasons. Amy is a very active five-year-old who enjoyed spending time in a variety of play centers. Amy's wide selection of play centers gave me an opportunity to observe her in a variety of settings. Amy attends classes regularly, which gave me the opportunity to observe her on a regular basis. In addition, Amy did not appear to be highly influenced by my presence in the play centers. Amy's ability to act naturally while being observed is an important consideration because, according to Hatch (1995), young children who cannot act naturally while being observed do not make good participants.

I also chose Amy because, although she appeared to have relatively average literacy abilities. She seemed very unsure of her own abilities. She often stood back and watched the other children before she began an activity. Amy was generally hesitant to answer direct questions during whole or small group instructional periods. In addition, Amy's literacy abilities were often constrained by her desire for correctness. During The Abeka phonics time and other teacher directed activities Amy was generally unwilling to try a new skill. I suspected that the informal play setting might provide Amy more freedom to demonstrate what she knows about literacy. This setting gave me an opportunity to

assess Amy's emergent literacy development in a less-structured environment.

Data Collection

I collected data using the participant observation guidelines of Bogdan and Biklen (1982), Glesne and Peshkin (1992), Lincoln and Guba (1985), and Hatch (1995). I recorded participant observation data through the use of descriptive field notes, audio taping, and video taping. I made reflective notes throughout the research process in a separate journal. Additional data include a collection of participant artifacts and informal interviews. In the following section, I first outline my entry procedures. Second, I describe my role as a participant observer. Third, I discuss my use of field notes, audio taping, and video taping to collect participant observation data. Finally, I describe my use of informal interviews and artifacts.

Entry

Lincoln and Guba (1985) outline a four-step process for gaining entry into a setting: (1) make initial contact, (2) negotiate consent, (3) develop trust with participants, and (4) insure participant's anonymity. I followed this four step process in gaining entry to the setting.

I managed initial contact easily because I used my own pre-kindergarten classroom as an observation site. My classroom was a part of a Southern Baptist church kids-day-out program in the southwestern States. In my initial employment interview with the director I discussed my desire to use the classroom for research purposes. She was open to the proposal. Then, one month before I began data collection I discussed the study in-depth with the kids-day-out director and children's minister. I provided both of them with a brief description of the purpose and design of the study. We discussed their concerns, including the need to receive parental consent. I received written permission to conduct the study from the kids-day-out director, children's minister, and pastor of the church.

The second step in the entry process required that the researcher gain informed consent from all participants (Lincoln & Guba, 1985). Informed consent requires that the researcher make known to prospective participants the purpose and design of the proposed study (Lincoln & Guba, 1985). To obtain written consent I sent out consent forms to all the parents of children in my class. I chose to ask for consent from all parents because, even though I was centering my observations on one child, all the children would be observed, video taped, and audio taped when they

interacted with that child. In the consent forms, I provided a basic description of the study, explained that all video and audio tapes would remain confidential, and assured the parents that each child's anonymity would be maintained at all times. All the parents gave consent for their children to take part in the study. In addition, I spoke with Amy's parents in-depth about the study. I explained that their child would be the focus of the study. I further explained exactly what types of reporting might occur and how the data would be collected. I received written and oral permission from Amy's parents.

I also negotiated consent with all the children in the class. I spoke with them to ask for their permission to watch them as they played. I explained that they would be video taped using the video camera and asked them to wear a wireless microphone. I also took special care to discuss the project privately with Amy. I wanted to be sure I had fully informed consent from Amy herself. I made sure Amy completely understood the data collection procedures and felt comfortable being observed. I did not inform Amy that she was the main focus of the study, because I feared this might influence her actions. Amy agreed to take part in the study, and the rest of the class was excited about being video and audio taped.

A third step in gaining entry concerned building and maintaining participant trust (Lincoln & Guba, 1985). Hatch (1995) considers the development of a trusting relationship to be the greatest hurdle in conducting research with very young children. Young children have a greater need for their environment to be familiar and routine than older children. I took several months to develop an atmosphere of trust before I began data collection. Because I was the regular classroom teacher, I began to build an atmosphere of understanding and trust with the children from the first day of school.

From the very beginning of the school year I began to clearly establish my role in the play environment. In order to develop trust in the play environment, I attempted to maintain the role of player, not teacher, as much as possible during play. I followed the children's leads during play and maintained a child-like playful attitude. I modeled the use of supportive comments and a sharing attitude, as well as other appropriate behaviors I wanted to encourage in the play centers. I only took a disciplinarian role during play when a child's behavior threatened to harm himself/herself or others. When the children asked me to mediate their conflicts during play, I encouraged them to work the problem out themselves. When I saw a problem

brewing, I left the play setting in order to avoid becoming the mediator. Because of my efforts to modify my role of teacher in the play environment, the children soon viewed me as more of a player than a teacher during play.

After I began my data collection, I took further steps to maintain the children's trust. As I mentioned earlier, I gave the children a full explanation of what I was doing. I asked their permission to video tape them, and I only put a microphone on children after receiving oral permission. If a child did not want to wear the microphone, I did not insist. On three different occasions Amy declined to wear the microphone. On one occasion she had a sunburn and the microphone was uncomfortable, and on two other occasions she simply did not want to wear it.

I also asked permission to enter a play episode before I would act as a player or conduct informal interviews. The children were generally eager to include me in their play.

The fourth step in gaining entry is to ensure participant anonymity (Lincoln & Guba, 1985). I decided to allow the children to make up their own pseudonyms. The only regulation was that the name had to correspond to their sex. The children enjoyed making up their own pretend names and the names seemed to fit

their personality. The identity of each participant has been protected in this report through the use of these pseudonyms. I further ensured anonymity by restricting access to the audio and video tapes.

Participant observation

I acted as a participant observer in the play centers. Being a participant observer "entails a way of being present in everyday settings that enhances your awareness and curiosity about the interactions taking place around you" (Glesne & Peshkin, 1992, p. 54). Researcher participation in a research setting can range from complete observer to a fully participating member of the group (Bogdan & Biklen, 1982). In my case, I acted as a fully participating member of the class. I maintained the role of player in the play environment, and I was also the regular classroom teacher.

Participant observation was appropriate for this study for three reasons. First, my role as a player in the centers made it possible for me to provide support and modeling during literacy-directed play. Second, my role as participant observer made it possible for me to conduct informal interviews during the play periods. Third, my role as teacher made it possible for me to determine if play observations are a feasible form of literacy assessment in an early childhood classroom.

Role of Researcher

My role in the play centers varied from one play episode to the next. Depending on the situation, I took the roles of onlooker, player, and leader, as suggested by Neuman and Roskos (1993). Much of the time I was simply an onlooker or audience for the play. According to Neuman and Roskos (1993), children enjoy having an adult simply add validation to their play by acting as an audience. I also entered into the scene as a player. In this role I took all my play cues from the children, but I was able to interject literacy demonstrations when they fit naturally into the play scheme the children had developed. At times, I took a leadership role in the play. I took this role primarily when new props or a new center were added, and the children seemed to need direction.

Field Notes

I took both descriptive and reflective field notes (Bogdan & Biklen, 1982, 1992). Descriptive field notes provide a detailed account of what happened in the field. Reflective field notes consist of the observer's more personal reflections of what occurred in the field.

The goal of descriptive field notes is to capture a "slice of life" (Bogdan & Biklen, 1982, p. 84). In the descriptive portion of my notes, I described Amy's play

in as much detail as possible. I included a description of who took part in the play, how the play scheme was negotiated, the basic theme of the play, the role I had in the play, and how Amy displayed literacy demonstrations during play. The descriptive field notes served as the major data source that I used to come to an understanding of Amy's literacy demonstrations. I used all other forms of data to support, clarify, and extend information in the descriptive field notes.

The goal of reflective field notes is to consider a more personal account of the inquiry. According to Bogdan and Biklen (1982), researchers use reflective notes to record their "feelings, problems, ideas, hunches, impressions, and prejudices" (p. 86). I used a separate journal to record my personal reflections about what I was observing in the play centers. This journal gave me an opportunity to reflect on Amy's actions within the scope of the classroom as a whole. The journal guided my data collection during further observation periods by helping me to begin to see where the data was connected. My reflective notes also gave me direction as to the types of modeling that I needed to engage in during play. In addition, my reflective notes helped me to evaluate the feasibility of using observations in play centers as a form of literacy assessment in an early childhood classroom. Finally, my

reflective notes helped me to gain a better understanding of my own role in the play environment.

Audio- and Video-Taped Data

I recorded video- and audio- taped data throughout the inquiry process. I used the video tapes to support the reliability of my field notes. I viewed the video tapes to verify the accuracy of my descriptive field notes. At times, an assistant video taped Amy's interactions in the various play centers, and on other occasions I set up the camera on a tripod to record all the action in a particular play center. In addition to video taping, I used a cordless microphone to capture Amy's verbal interactions and personal speech during play. Amy wore the cordless microphone during every taping session, and other children in the class wore a disengaged microphone so Amy would not feel singled out.

Informal Interviews

I conducted informal interviews with Amy during the course of her self-initiated play. I chose to use informal interviews because of Hatch's (1995) recommendations. Hatch contends that children are less likely to act naturally in unfamiliar settings than in familiar ones. Informal interviews that occurred in the play centers provided the most familiar context for Amy.

These interviews helped me understand Amy's perspective about literacy, and they provided insights into the thought processes Amy used while she played.

At times I interviewed Amy and her friends as the play scene unfolded gain insights into the actions they were undertaking at the time. For example, while playing travel agency Amy used a long strip of paper to write a group of letter strings. I approached Amy with my own paper and told her I wanted to write too and asked her what she was writing. She informed me she was writing a list of "all the stuff I need for my trip to Disney Land." At other times I interviewed Amy immediately after she ended a play scheme to clarify any action she had taken during that scene. I used this approach when I felt my questions might influence or interrupt the flow of the play. For example, one time Amy and Katie moved from the block center to the art center and began to work diligently on a piece of writing. At the time, I chose not to ask any questions because I feared my interference would break the continuity of the play. When they had finished this play scheme I approached Amy to ask what they wrote. It turned out they were making a sign to tell Dennis "No Dogs" so he would quit pretending to be a dog and bothering them. On other occasions, I used the relaxed play atmosphere to ask Amy questions about her general understanding of literacy.

For example, when reading or writing with Amy I would often probe her understanding of the concepts of print by asking her direct questions. For example, I often asked Amy where she would start reading and which way would she go.

Artifacts

I collected artifacts that Amy produced naturally during play. I conducted informal interviews with Amy, when necessary, in order to come to a full understanding of what the artifacts meant to her. This questioning process was an important part of this data collection procedure because it is the questions and meanings that researchers gain from artifacts that make them important data sources (Eisner, 1991). I labeled the artifacts with a date and an explanation of their meaning.

Data Analysis

Organizing the Data

I used the Microsoft Word 5.0 word processing program to write up my field notes after each observation session. I stored the word-processed data on the hard drive, a separate disk, and a printed copy. All records of descriptive field notes, interviews, and artifacts were organized in a researcher notebook. I

preferred to keep all these items in one notebook so all forms of participant observation data were available in one place. I also kept a separate reflective journal.

I organized my notebook according to each observation period. I kept the description of the play, a record of interviews, and all artifacts collected for each observation period together. In the beginning I tried to keep the records of descriptive field notes, interviews, artifacts, and the reflective journal in separate sections of one notebook. I soon discovered that this type of organization was impractical for my needs. I found myself continually flipping back and forth between the different types of observation data. I determined that the each type of data held more meaning if I viewed them as a whole, rather than trying to impose some type of artificial separation between them. Each type of data gave meaning to the other, and the complete meaning could only be discovered if all data sources were viewed together. I chose to keep my reflective field notes in a separate notebook. The thoughts and ideas I put in this section were very personal and were inappropriate to share with others. My decision to keep my reflective journal in a separate notebook gave me the freedom to write candidly in my reflective notes.

Coding and Categorizing the Data

I analyzed the data using the constant comparison method as described by Bogdan and Biklen (1982). Constant comparative analysis requires the researcher to code the data as the study progresses, continually looking for "key issues, recurrent events, or activities in the data that become categories of focus" (Bogdan & Biklen, 1982, p.70). Bogdan and Biklen (1992) say that data analysis and data collection occur in a "pulsating fashion" (p.72). First one collects data, then comes analysis and theory development, more data collection, more analysis, and so on. Through this process, I developed the initial codes. I then used these initial codes to analyze future data, while continually searching for new codes. Throughout this analysis, I looked for emerging patterns that helped me begin to develop a deeper understanding of the context (Bogdan & Biklen, 1982). The emerging patterns guided my data collection, but the in-depth analysis and interpretation of data occurred more towards the end of the project (Bogdan & Biklen, 1992).

I began initial data analysis during the data collection process. In this initial phase my codes remained open and unstructured. To explain, I simply wrote notes in the margins of the word processed data that described what I thought was happening. I also

recorded Amy's use of literacy in play on separate note cards. I then grouped these note cards together to help me see patterns that were emerging. I also took the advise of Bogdan and Biklen (1992) who say that first time researchers need to take more time speculating about their data during the field experience. I used my reflective journal to take time to speculate about what I was seeing in the field. I took time to contemplate ideas, formulate hunches, and record insights. My initial codes emerged from these marginal notes and reflective inquiry.

Midway through the project I also found it useful to explore related literature. Bogdan and Biklen (1992) suggest that the researcher should visit the literature after they have been in the field for a while in order to enrich their data collection and analysis. I revisited the literature on the development of play centers to insure that my classroom was designed in a way that encouraged literacy-directed play. I also began to explore literature that described the types of skills that are developing as children acquire literacy. This knowledge enhanced my data analysis by providing insights into Amy's current development. Many initial codes emerged from the literature, especially the work of Clay (1975).

At the end of data collection I read through my data in its entirety several times (Strauss & Corbin, 1990). In my first reading I did not make any additional notes or comments. I simply read every word of data to get a comprehensive and complete view of what I had. At this time I also read through my reflective journal in order to reflect on my thoughts at the time. In the second and third reading, I made several marginal comments that helped to provide direction in developing my final codes. At this time, I also reviewed the audio and video taped data in order to add clarity and validation to my descriptive field notes. I analyzed the tapes, my descriptive field notes, interviews, and artifacts trying to draw from the various data sources to get a complete picture of the data. After I reviewed the data extensively I developed the final codes.

Developing the Codes and Categories

In analysing the data I continually asked myself, "What types of literacy demonstrations is Amy exhibiting? What do these demonstrations reveal about Amy's knowledge of literacy?" Throughout the data there were numerous instances where Amy demonstrated her knowledge. As I read through the marginal notes I began to see patterns of behavior emerging. I used Bogdan and Biklen's (1992) guidelines to assign a single code to

describe these patterns or regularities in the data. For example, as I read through the data I found many instances where Amy used print to direct or control another child's actions. In coding the data I then assigned a single code to all instances where Amy exhibited this behavior. In an attempt to find codes that would describe the range of behavior Amy was exhibiting I looked to the literature to help me understand Amy's behaviors and to provide labels for these behaviors. I drew extensively from the work of Vukelich (1994), Clay (1975), and Schickedanz (1986).

As I described earlier, my initial development of codes occurred during the course of data collection. When I began to see patterns of behavior emerging I made notes in my reflective journal, on separate note cards, and in the margins of my descriptive field notes. As the data collection process came to a close, I looked at the data as a whole and highlighted all incidents where I believed Amy was demonstrating her knowledge of literacy in play. I added to my marginal notes and possible code cards as I read through the data.

After reading the data several times, I began to develop my final codes. First I examined my reflective journal, note cards, and marginal notes. Then I tested possible codes out on the data. If there were sufficient data to support an individual code I made a

propositional statement describing that code's properties, and I developed rules of inclusion based on those properties. Lincoln and Guba (1985) suggest that the researcher use propositional statements and rules of inclusion in order to more clearly define the different codes. I then proceeded to code the data using these initial codes and rules of inclusion. When I had coded all the data with these initial codes, I looked at the remaining data where no code fit and devised codes that described these behaviors. By doing this I developed three additional codes.

I then examined the codes to discover if they were related in any way. In this analysis I discovered two major categories under which the codes could be organized. Bogden and Biklen (1992) describe categories as general, more sweeping groups the data represents. I found that all the codes could be organized under the categories: functions of print and concepts of print. These categories and related codes will be described in a later section.

Organizing the Coded Data

Bogdan and Biklen (1992) describe several ways to organize data. They stress the need to organize data in a way that is most manageable and informative for the researcher. I chose to use a table similar to what

Bogdan and Biklen (1992) described to organize my data. The first step in my organization was to assign page numbers to my observation records. Then I placed the information in a four-column table. In the first column I listed the categories and codes. In the second column I wrote a brief description of the behavior or activity. In the third and fourth columns I recorded the observation and artifact page number (see Table 3.1).

I found this table most informative for several reasons. First, I was able to get a quick picture of the types of literacy related behaviors in which Amy engaged. Second, I was able to see the number of different ways Amy demonstrated each type of behavior. Third, I was able to see how often Amy repeated a particular behavior. By organizing my data in this way I was able to come to a richer understanding of Amy's knowledge of print.

Description of Categories and Codes

In developing the names of the codes I drew extensively from the work of Vukelich (1994), Clay (1975), and Schickedanz (1986). These sources helped me understand the behaviors Amy exhibited and provided labels for these behaviors. By using common terminology I hope the reader will be able to draw parallels between the findings in this study and the work of others.

Table 3.1: Excerpt from a table created to organize data.
 (Code = name of code, Page # = Corresponding
 field notes page number, Artifact = Assigned
 artifact number.)

Code	Description of Amy's Behavior	Page #	Art #
Print provides instructions or a plan.	-Uses a cook book or recipe to prepare food.	1,16, 28,42. 42,57	
	-Refers to the front of a puzzle box to see what the puzzle is suppose to look like.	3,18, 22	
	-Refers to a copy of house plans while pretending to build.	4,7,13 21,	
	-Makes a set of house plans.	4,13	3,9
	-Draws a map and an address to tell fellow fire-fighters how to get to a house.	5	5,6

In the following section I briefly describe the two categories and list the codes related to each of these categories. First I describe the category "Functions of Print" and list the fourteen codes under this category. Then I describe the category "Concepts of Print" and list the eight codes under this category.

Functions of Print. Under this category I describe instances where Amy demonstrated her knowledge of the many ways in which print is used in the environment. Under this category there are fourteen codes. Amy demonstrated that she understood print could be used: (1) to gain instruction; (2) to provide others with information; (3) to provide a label; (4) to test skills of others; (5) to organize; (6) to identify ownership; (7) to tell a story; (8) to fill time or entertain; (9) as a resource for information; (10) to influence or direct others behavior; (11) to gain entrance or reserve space; (12) to designate money; (13) to convey feelings; and (14) to record information.

Concepts of Print. Under this category I describe the instances in which Amy demonstrated her knowledge of the many features or concepts of print. There are eight codes under this category. Amy demonstrated her understanding of the following concepts: (1) print is made up of separate words; (2) print carries the message; (3) print has its own type of

language; (4) print has directionality and orientation; (5) print holds a permanent message; (6) print has punctuation; (7) print and pictures are related; and (8) print has particular features.

Summary of Data Analysis

In the proceeding sections I described how I gained entry into the classroom and negotiated consent with the participants. I described the methods I employed to collect data. Then I gave a detailed account of how I analysed the data. Following this I described how I organized and coded the data in order to come to a fuller understanding of Amy's emergent literacy knowledge. Finally, I gave a description of the categories and codes. In the next section I discuss issues related to trustworthiness: credibility and tranferability.

Trustworthiness

In order to evaluate the strength of this study it is important to consider the issues of trustworthiness as described by Lincoln and Guba (1985). In the following section I will discuss two key trustworthiness criteria: credibility and transferability.

Credibility

Lincoln and Guba (1985) describe six methodological strategies that can be employed to ensure credibility of a qualitative study: prolonged engagement, persistent observation, triangulation, peer debriefing, member checks, and negative case analysis. In my study I employed all of these methodological strategies except negative case analysis because I only had one participant. In the next section I will briefly describe how I employed each of the other methodological strategies described by Lincoln and Guba (1985).

Prolonged Engagement. Data were collected over a prolonged period of participant observation. Initial observations occurred from September 1996 to December 1996. During this time I sought to develop a relationship with the children, establish basic play center routines, and fine-tune the design of the literacy-enhanced play centers. I collected participant observation data from mid-January 1997 to mid-May 1997. Throughout this 19 week period, I observed Amy during each 75-minute free play period. Amy attended class two days a week with some interruptions due to illness and class scheduling. In total I recorded twenty-eight observation periods. This period of prolonged engagement gave me sufficient time to come to a true understanding of Amy's understanding of literacy.

Persistent Observation. A second methodological strategy used to ensure credibility is persistent observation. Lincoln and Guba (1985) contend that persistent observation provides the depth of the study. They suggest that persistent observation helps the researcher come to a fuller understanding of the setting. Bogden and Biklen further stress the need for the observation to be deliberate and focused. To ensure that my observations remained persistent, deliberate, and focused I kept a copy of my purpose statement and research questions inside my classroom cupboard and in the notebook I carried during observations. I reviewed these questions each day right before my observations began. Throughout the study I also reviewed my data in order to ensure that my observations remained persistent, deliberate, and focused. I used persistent observation to come to an understanding of Amy's knowledge of literacy.

Triangulation. A third methodological strategy used to ensure credibility is triangulation. Lincoln and Guba (1985) state that the use of triangulation is important to ensure credibility. Data in this study were triangulated through the use of descriptive field notes, reflective field notes, informal interviews, artifact collection, audio taping, and video taping. The descriptive field notes were the cornerstone of the data

sources, but the other forms of data served to corroborate and enrich the descriptive field notes.

Peer Debriefing. The fourth methodological strategy I used to ensure credibility is peer debriefing. Lincoln and Guba (1985) describe four purposes of peer debriefing: (1) to subject the researcher to probing questions in order to come to a fuller understanding of the phenomenon being studied, (2) to develop a working hypothesis, (3) to develop an emerging research design, and (4) to provide an opportunity for catharsis. The first and third purposes were addressed in the research proposal process. My committee members asked many probing questions that helped me to seek explanations during my initial observations. The committee members also suggested further literature to review that served to heighten my awareness of related research. In addition, the committee offered suggestions for the emerging research design.

I also engaged in peer debriefing sessions with my committee members throughout the study. In these sessions my committee members asked further probing questions that often served to add insight to my study. They also assisted me in fine tuning my emerging research design. Further, we discussed what I was observing in the centers, interpretations of Amy's use of literacy in play, and emerging codes. Finally, I used

these peer debriefing sessions as a time of catharsis. These times helped me understand my frustrations as a first time researcher and prepare for further observation and writing sessions.

Member Checks. The fifth methodological strategy I used to ensure credibility is the use of member checking. Lincoln and Guba (1985) state that member checking is the most crucial technique for establishing credibility. Member checking involves discussing interpretations and conclusions with the participants and allowing the participants to respond.

I used member checking in two ways. I used informal interviews with Amy during the observation sessions. During the informal interviews, Amy had the opportunity to explain her actions and thought processes behind those actions. In this way I was able to verify my interpretations of Amy's actions with Amy. I often asked Amy the meaning of an event that seemed evident to me, only to discover that her thought processes were much deeper than I had assumed. Through the use of informal interviews I was able to check my interpretations of Amy's actions to insure their accuracy.

Another way I employed member checking was by discussing my interpretation of play with my classroom assistant. My assistant was the only other adult in the classroom regularly. As a member of the classroom she

provided a different perception of some of the children's actions. I found it quite informative to discuss my interpretations of a play setting with my assistant to see if my interpretation of the children's actions were consistent with what she had seen. As the study progressed, my assistant's comments became more and more enlightening to me. For example, one day Amy was being particularly quiet and solitary. I interpreted these actions as Amy being grumpy, tired, or out of sorts. My assistant, on the other hand, thought that Amy was merely concentrating on a task she viewed important. On further observation and discussion with Amy I discovered my assistant's interpretation to be correct.

To conclude, credibility is a key criteria in determining trustworthiness of a study. I have discussed methodological strategies used in this study to ensure its credibility. Further, it is the role of the researcher to communicate the findings in a way that the reader may apply the findings to his or her own environment (Lincoln & Guba, 1985). In the next section, I discuss transferability and its relation to the strategies I used to ensure credibility.

Transferability

A second criteria for trustworthiness is transferability. The appeal of a qualitative research

design is that it assumes that "reality is ever changing, that knowledge consists of understanding, and that the goal of research is examination of processes" (LeCompte & Preissle, 1993, p.46). In qualitative research it is inherently understood that the findings do not transfer automatically from one setting to another. Instead, the reader must evaluate a study to determine if the findings are transferable to the reader's own setting. It is the researcher's responsibility to describe the context and results of the study in enough detail that the reader can understand the nature of the findings and apply them to his or her own situation.

Prolonged engagement, persistent observation, and triangulation of data are three methodological strategies that aid in providing a detailed account of the circumstances in the study. The reader must feel confident that the researcher remained in the setting long enough to understand it fully. I conducted participant observation over a 19-week period. This prolonged engagement ensures the reader that the observations I made were typical of the everyday play that occurred in the classroom.

Persistent observation also contributes to transferability. Persistent observations ensure the reader that the findings are consistent with the

purposes of the study and the questions used to guide the research. In this study I analyzed the data consistently throughout the study. I took time to look at my purpose and questions each day before observation began. I also reviewed my data with the questions and purpose in mind at the end of each observation period. I used my reflective journal to record my thoughts and impressions. These procedures served to keep my observations focused and persistent.

Finally, triangulation of the data contributes to transferability. The use of multiple data sources enables the researcher to give a detailed account of the setting and participant (Lincoln & Guba, 1985). In this study I used a variety of data sources including descriptive field notes, reflective field notes, informal interviews, artifact collections, audio-taping and video-taping. Triangulation of data from this wide variety of data sources fosters transferability.

Ethical Considerations

Bogdan and Biklen (1992) describe three ethical issues the researcher must consider: informed consent, protection from harm, and role of researcher. In the following section I describe how I accounted for each of these issues in my study.

Informed Consent

The standard of informed consent is a fundamental ethical principle in all research. In qualitative research, completely informed consent is difficult to achieve because even the researcher is unaware of the final outcome of the research (Eisner & Peshkin, 1990). However, ethical practice requires that the participants be given as much information as possible about the study.

Several criteria for informed consent are discussed in the literature. First, participants should understand the purpose and significance of the study. Second, participation should be completely voluntary, and participants must feel free to leave the study at any point. Third, participants should be informed of how the study will be conducted, including an understanding of how observations will take place. Fourth, participants should understand how their identity and confidentiality will be protected (Bogdan & Biklen, 1992; Eisner, 1991; Eisner & Peshkin, 1990).

I address how the criteria for informed consent were met in Chapter III when I described my entry procedures. The purpose and significance of the study were discussed with the children's minister and the director of the kids-day-out program, the parents of the children in the classroom, and Amy's parents. Both verbal and written

consent were obtained from all members of the group. In the consent forms prepared for the parents, I addressed the purpose of the study, made it clear that participation was voluntary, discussed observation methods, and I described how observation would take place. I also obtained consent from the children themselves by giving them a general explanation of what I was doing and asking permission to watch them while they played. I also let the children examine the video and audio equipment and explained their use. In addition, I received verbal permission from the children each time I joined a play center to observe or placed a microphone on them to record interactions.

Protection from Harm

Public exposure of unethical research practices in the biomedical research field highlighted the need to protect participants from harm in research (Bogdan and Biklen, 1992). Although these concerns have come to light primarily in other disciplines, Bogdan and Biklen (1992) list this concern as one of the key issues in ethical practice of qualitative researchers. Protection from harm incorporates an understanding that the research project is not important enough to warrant emotional or physical harm to the participants.

Bogdan and Biklen (1992) make it clear that ethical responsibility is not always a clear cut issue. There are many incidents where making the proper ethical decision is difficult. Bogdan and Biklen (1992) assert that the tough ethical decisions must ultimately reside with the researcher.

While in the field I was faced with one ethical question I was forced to address in order to protect Amy and other members of the group from what I deemed potentially harmful. I was faced with the ethical question of how to continually observe one child during play while maintaining an equal amount of my attention on all the children in the class. Some people might contend that this is not something I needed to worry about, but I felt that I would be doing harm to the other children in the setting if they viewed me as showing favoritism to Amy. I dealt with this question by being mindful of the potential problem. In this way I was careful to provide encouragement, support, and attention to all the children, while I focused my note-taking and observations on Amy's literacy activities. In the next section I discuss how I dealt with this concern more specifically.

Role of Researcher and Teacher

In dealing with ethical considerations the researcher must clearly establish his or her role in the research setting. In my case I was both teacher and researcher in this classroom. These roles left me with a major ethical dilemma. Throughout the study I had to maintain a balance between being researcher and teacher. At times my role as researcher conflicted with my responsibilities as a teacher. In my dual roles I had to discover a give-and-take process.

I addressed this ethical dilemma by first arranging my schedule so that my part-time assistant would be in the room during the play period. This took some of the stress of classroom management off of me and freed me to observe. My assistant ran the art center, making it possible for the children to engage in more elaborate art projects. She also took over many of the classroom management duties, such as mediating conflicts and taking care of children's personal needs. Carefully arranging my assistant's schedule served as a benefit to the children and did not interfere with the overall running of the classroom.

I also maintained a balance between my roles as researcher and teacher by resisting the temptation to alter my daily schedule to include more opportunities to observe. On occasion my morning observations were

interrupted by school-wide activities the class had to attend. On these occasions I was tempted to substitute the outside play time with center time in order to have more opportunities to observe. I decided against this, because it was not fair to deny the children this much-loved outside play time.

In addition, I maintained a balance by always placing my role as teacher as my first priority. On the very rare occasions when I could not maintain my role as researcher without sacrificing my responsibilities as the teacher, I always set my research aside. For example, there were times during my observations that I found it necessary to stop observing and deal with a discipline problem. I considered this the most ethical action because my primary responsibility to these children was to be their teacher. I could not ethically place my research activities over my responsibility as a teacher.

Summary

In Chapter III, I explained the rationale for using a qualitative research design. I described the context of the study and the participant selected. I explained how I used descriptive field notes, reflective field notes, informal interviews, artifact collections, audio

taping, and video taping. I described the data analysis procedures. I also listed the final categories and codes. Finally, I addressed the issue of trustworthiness and considered ethical concerns.

CHAPTER IV

FINDINGS

Introduction

The purpose of this study was to explore the use of play as a resource for examining children's emergent literacy development. In order to meet this purpose I observed one five-year-old, preschool girl (Amy) during play in a literacy-enhanced environment. I have sought to answer two basic research questions concerning this child. First, what types of emergent literacy demonstrations does Amy exhibit while playing in a literacy-enhanced environment? Second, what do these demonstrations reveal about Amy's knowledge of literacy? In this study I will concentrate on gaining a richer understanding of one child's knowledge of the functions and concepts of print.

In Chapter IV, I first provide a fuller description of the research setting and participant. Second, I give a detailed description of Amy's play and relate these actions to my codes and categories. Third, I discuss the findings related to the research questions.

Description of Setting and Participants

The goal of describing the setting and participant is to help the reader visualize the scene (Eisner,

1991). In this way the reader can make decisions about whether the information is transferable to his/her own setting. The researcher holds the responsibility of describing the setting in such a way that the reader is able to make these decisions (Lecompte & Preissle, 1993). In this section, I describe the classroom environment. I also give a complete description of the one participant Amy. In addition, I give a brief description of each of the other members in the classroom. Finally, I give a description of my own philosophy as a teacher.

The Classroom

The study occurred in my pre-kindergarten classroom which is a part of the kids-day-out program of a Southern Baptist church in the southwestern States. The classroom consisted of ten four- and-five-year-old children who were due to start kindergarten in the fall of 1997. The class followed a daily schedule which included a 75-minute free play period, art, snack, phonics instruction, hands-on learning centers, lunch, nap, and story time. The classroom play centers consisted of a reading center, art center, puzzles and manipulatives center, home-living center, block center, and a themed play center that changed according to unit topics. Children were allowed to self-select play

centers, but only three to four children were allowed in each center at a time.

The play centers were infused with literacy props and labels. The design of the play centers was consistent with the literature that describes literacy-enhanced play centers, especially the work of Neuman and Roskos (1990) and Morrow and Rand (1990). The centers were set apart from one another using tables and shelves. Labeled storage containers and cupboards with pictures and words were used to organize the centers. To avoid excessive clutter, I limited the number of play items present at one time and changed the items periodically to stimulate new play themes and interest. (For a complete description of each center, see Chapter III.)

The school required that a portion of the day be devoted to teaching the Abeka book reading program. The Abeka book program is a phonics based, work sheet driven program. The emphasis is on teaching phonics in isolation in a structured manner through drill and practice. I met the school requirements by spending a small portion of each day (10 to 15 minutes) doing these letter-sound drills while the children ate snack. We also spent an additional fifteen to twenty minutes a day doing practice work sheets. In addition, I sent phonics work sheets home with the children.

The school also provided the teachers with a Wee Learn curriculum package they could use at their own discretion. The Wee Learn curriculum is a center based, hands-on program that takes an exploratory approach to preschool learning. This curriculum is much more in line with my own philosophy as a teacher.

We began each day with seventy-five minutes of unstructured play in literacy-enhanced centers. After play time we took a break and served snack. While the children ate snack I presented the Abeka book phonics lesson. For the remainder of the morning the children circulated through hands-on learning activities that centered on expanding the children's knowledge of literacy, music, science, and their world. After lunch we took a short rest period, followed by outside play. Our afternoon activities consisted of puzzles, games, and manipulatives that were designed to give the children an opportunity to work on hand-eye coordination and small-motor skills. The children ended their day working on phonics work sheets until parents arrived. I read stories consistently throughout the day as a transition activity.

Participant

Lincoln and Guba (1985) state that the researcher must selectively determine from whom the data will be

collected. This selective sample must be based on the purpose of the study and a desire to gain as much detail as possible in order to understand the uniqueness of the context (Lincoln and Guba, 1985). This study focused on the emergent literacy demonstrations of one pre-kidergarten child.

I purposively selected Amy (pseudonym) as the primary focus of this study for many reasons. She is a very active five-year-old who enjoyed spending time in a variety of play centers. Amy's selection of play centers gave me an opportunity to observe her in a variety of settings. Amy attended school regularly, which gave me the benefit of observing her on a regular basis. In addition, Amy did not appear to be highly influenced by my presence in the play centers. This is important because, according to Hatch (1995), young children who are unable to act naturally while being observed do not make good participants.

When I began data collection, Amy was five years one month old. She is a very pretty little girl with long, wavy, reddish, blonde hair. Her hair was usually pulled up into a pony tail with clips. Amy enjoyed putting pretty ribbons in her hair, wearing jewelry, and wearing new clothes. Amy was very slender with long legs and petite features. Outside of school Amy took part in dance class. Amy looks just like a ballet dancer.

Amy has a very sweet personality. She was basically shy during all structured class activities, but her mother reported that this was very contrary to her manner outside of school. Amy had a desire for correctness, and was very hesitant to take a risk. During structured activities Amy usually stayed very close to her best friend, Katie. She would often stand back and watch the other children before she would begin an activity. Amy usually would not attempt an activity if she did not believe she could attain perfection on the first try.

Amy appeared to have relatively average literacy abilities, but her fear of taking risks and her shy nature prevented her from demonstrating these abilities in a structured class setting. At the beginning of the school year, Amy could only identify eight upper case and three lower case letters when assessed in a structured flash card format. This was lower than the average letter identification for the class, which was 15 upper case and 11 lower case letters. Amy reported that she could not write any part of her name, but her mother produced a sample of her written name from home. At the beginning of the year Amy could distinguish between letters and numbers. She knew the front of the book. She did not respond when asked where I should start reading, and she could not point to the words.

In the first few weeks of school Amy appeared to be less developed in the area of literacy than most of the other children. Her beginning of the year assessment was lower, and Amy would not attempt to write anything on her art work like most of the other children would do when encouraged. For example, most of the other children would use mock writing or letter strings when asked to write a story about their pictures, but Amy only stated that she could not write. In addition, she did not use any writing or emergent writing in her journal. Amy rarely responded during whole-class phonics instruction, and she became frustrated and withdrawn if I attempted to work one on one with her on a task.

I soon noticed, however, that my original assumptions about Amy's literacy development might be false. Amy could keep up with the other children while doing independent letter-sound work sheets, and as I added literacy props to the play centers she freely used emergent writing in play. For example, only ten days after Amy said she could not write her name, she wrote it with her finger in shaving cream. At that time she also wrote many of the letters her friend Katie told her to write. Amy also used mock writing and letter strings while playing in the kitchen center. I began to suspect that Amy was not demonstrating her literacy abilities to the fullest extent during whole class instruction.

At the end of the year I administered Marie M. Clay's (1993) Observation Survey of Early Literacy Achievement to Amy. Amy demonstrated the ability to identify twenty upper case and six lower case letters. She was only able to identify five concepts of print. She knew the front of the book and that the print carried the message. She knew where to start reading but did not demonstrate her knowledge of return sweep or directionality. She did not demonstrate knowledge of the first and last part of a sentence or story. She was unable to successfully orientate an upside down picture or text. She could not identify any changes in word or letter order and demonstrated no knowledge of punctuation. In the writing assessment Amy only wrote one word, her name, and would not attempt to write any other words. She also refused to write anything on the Hearing Words In Sounds subtest.

Other Members of the Group

In this section I describe the members of the classroom. First I describe each of the other children because Amy's actions were influenced by the friends she chose to play with in the centers. Their personalities and literacy abilities helped to shape the play schemes. I use pseudonyms to preserve the anonymity of the participants. Second, I describe my classroom assistant

because my assistant was in the classroom during the play period. On occasion, her interactions with Amy influenced her play. Finally, I describe myself because my personality, beliefs, and actions greatly influenced Amy's play. As the teacher, I had a very influential role in building the culture of my classroom, and as a player, I interacted with Amy on a regular basis as she played.

Katie was Amy's very best friend. Their mothers were very close friends and cleaned houses together. The two families socialized often; they even took a trip to Disney land together. The girls had known each other for many years, and they had always been in the same preschool classes. Katie was five years, seven months old when I began data collection. Katie's mother chose to hold her back from starting kindergarten. Katie was a very mature, well behaved little girl with well developed literacy skills. She knew almost all her letters, some of her letter sounds, and she used a great deal of advanced emergent writing. For example, she used letter strings on all her artwork. Katie was the class mediator. She had a wonderful ability for helping the children work out conflicts.

Greg was another friend Amy chose to play with often. Greg was five years, three months old. Greg was a very mature, sensible child. Greg knew all his

letters/sounds and he used a great deal of inventive spelling in his writing. Greg often took the job of organizing the play schemes.

Molly was a very sweet tempered, frail child in both body and spirit. She was four years five months old when I began data collection. Molly was very small for her age. She was often out of class with illness. Molly was not shy, but she was fairly quiet. She enjoyed being babied and cared for by the other children. Amy enjoyed pampering Molly and helping her in the play centers. Molly's literacy abilities were slightly lower than Amy's so she enjoyed being Molly's teacher.

Dennis was the classic "Dennis the Menace" in the classroom. This child's self-selected pseudonym was the only one I changed because "Dennis the Menace" suited him so well. Dennis was a very creative child. Dennis knew most of his letter/sounds; he had wonderful oral language skills; and he used a great deal of mock writing in his play. Dennis could orchestrate very elaborate play themes, but the other children hesitated to play with him because he lacked many social skills. Dennis had a very difficult time sharing, he would not follow the lead of the other children, and he disrupted the play scenarios of the other children.

Macy was an extremely shy child. She was five years, one month old. Macy would generally play by

herself in the puzzle or reading centers until another child invited her to play. Macy had average literacy abilities. She used mock-writing and letter-strings in her play, and she recognized most letters. Amy enjoyed being a leader with Macy.

Steven had a wonderful imagination. He was four years, nine months old when I began data collection. Steven had average literacy abilities. He demonstrated many emergent reading and writing skills while he played. He used mock-writing and letter strings for many purposes, and he demonstrated an understanding of one to one relationships and letter/sound correspondence. Steven was a little less mature than most of his classmates. He was upset very easily, and at times he would withdraw from the play.

Brittany was a very creative, imaginative little girl. She was four years, ten months old when I began data collection. Brittany's gift was the ability to think up very interesting play schemes. Brittany had relatively low literacy abilities the majority of the year, but she had a developmental leap towards the end of the year. Throughout most of the year Brittany did not demonstrate knowledge of any of her letters or sounds, and she hesitated to use literacy in play. Towards the end of the year Brittany had a huge developmental leap and began to demonstrate knowledge of

letter/sound relationships as she used invented spelling in her play. Amy enjoyed playing with Brittany. She would often take the role of organizing the play scenarios that Brittany invented.

Trent was a class director. He often took on the job of designating the roles for play scenarios and assigning play props. Trent was five years, two months old when I began data collection. He had very well developed literacy skills that he often used in play. He knew most of his letters and sounds, and he used many letter stings or inventive spelling as he played. Trent was also the artist of our class. The other children often called on him to draw something they would then use in play.

Josh was the class loner. Josh was four years ten months when I began my data collection. He had a speech problem so he was very difficult to understand. Josh had very low literacy abilities, and he struggled with his motor skills. Josh knew none of his letters or numbers; he had very low oral language skills including simple naming of objects, and he did not take part in dramatic play. Josh usually played by himself. When he did play with a friend it was generally parallel play; he played in close proximity to other children, but rarely interacted with them. At times Amy and Katie would try to include Josh in their play.

Ms. Karen was our class assistant. She worked in our class part of the day. This year was the first time Ms. Karen ever worked with small children. She was the mother of one two-year-old boy. Our class was at play centers while Ms. Karen was in the classroom. She also had charge of the children at nap and outside play. While in the classroom, Ms. Karen helped the children with daily art projects and supervised the children at play. Ms. Karen was much more lenient in her discipline than I, but she was very open to suggestions and followed my lead for the most part.

To truly understand the context of the study the reader must also understand who I am as a teacher. My teaching philosophies helped to form the classroom environment. First, I believe all children can learn if they are presented with quality instruction that meets their developmental needs. Second, I believe that the main role of the teacher is to act as the facilitator, helping children find value and meaning in their own learning. Third, I believe the classroom atmosphere must be built around a community of trust and openness. Fourth, I believe high expectations for all learners must be communicated in a way that fosters confidence and enthusiasm in the learner. Fifth, I believe that literacy should be taught in a wholistic manner where the learner is given a variety of opportunities to

explore reading and writing with varying degrees of teacher support. Finally, I believe that the teacher must capitalize on learner interests in order to cultivate self-motivation and enthusiasm.

My personality made it easy for me to interact with the children in the play centers as a player. I have a fun loving, playful nature with children. I enjoy taking part in children's play and simply enjoying life for the fun it can bring. I set clear attainable expectations, and I expect all children to meet these expectations. These clear expectations keep discipline problems down to a minimum, allowing me to enjoy the children, while teaching.

Findings

The purpose of this study was to explore the use of play as a resource for examining children's emergent literacy development. The two related research questions were: What types of emergent literacy demonstrations do children exhibit while playing in a literacy-enhanced environment? What do these demonstrations reveal about children's knowledge of literacy? I address these questions by first provide several tables that present my findings by categories and codes. Then I give a narrative description of Amy's actions during play in each center.

Description of Categories

In developing the names of the categories and codes I drew extensively from the work of Vukelich (1994), Clay (1975), and Schickedanz (1986). These sources helped me to understand the behaviors Amy exhibited and provided labels for these behaviors. By using this common terminology, I hope the reader will be able to draw parallels between the findings in this study and the work of other researchers. After analyzing the data I discovered two categories and 22 codes that emerged from the data.

Functions of Print

Under this category, I describe instances where Amy demonstrated her knowledge of the many ways print can be used in the environment. As Amy played, she used the literacy props and other print sources in our classroom to meet many goals and needs. By carefully observing Amy in literacy-enhanced play centers, I soon discovered that Amy had a great deal of knowledge about how print functions in her environment. I developed questions to define which data should be included in this category. Questions related to the functions of print category include: In what ways is Amy using print? How is Amy using print to meet her goals and needs? How is Amy directing others to use print?

Amy demonstrated an understanding of fourteen different functions of print. She demonstrated her understanding that print could be used: (1) to gain instruction; (2) to provide others with information; (3) to provide a label; (4) to test skills of others; (5) to organize; (6) to identify ownership; (7) to tell a story; (8) to fill time or entertain; (9) as a resource for information; (10) to influence or direct others behavior; (11) to gain entrance or reserve space; (12) to designate money; (13) to convey feelings; (14) to record information. (See Table 4.1 for examples of each code.)

Concepts of Print

Under this category, I describe the instances where Amy demonstrated her knowledge of the many concepts of print. As Amy used literacy props and other print sources in literacy-enhanced play centers, she demonstrated her knowledge of the many concepts of print. As I observed Amy, I discovered that she possessed a great deal of knowledge about the concepts of print. I developed questions to guide my inclusion of data. Questions related to the concepts of print category include: What do Amy's actions tell me she knows about how print is organized? What do Amy's actions tell me she knows about the concepts of print?

Amy demonstrated her understanding of the following concepts: (1) print is made up of separate words; (2) print carries the message; (3) print has its own type of language; (4) print has directionality and orientation; (5) print holds a permanent message; (6) print has punctuation; (7) print and pictures are related; (8) print has special features. (See Table 4.2 for examples from the data, which describe each code.)

Tables of Category Descriptions

In the following section I present nine tables that describe Amy's behavior by categories and codes. In Table 4.1, I provide examples of how Amy demonstrated her knowledge of each of the functions of print. In Table 4.2, I provide examples of how Amy demonstrated her knowledge of each of the concepts of print. The tables provide a clearer understanding of the depth and scope of Amy's knowledge of literacy.

Table 4.1: Functions of Print

Code	Description of Amy's Behavior
<p>Print is used to gain instructions</p>	<ul style="list-style-type: none"> -Used cook book or recipe to prepare food -Used a map to look for places. -Followed the instructions on an electric type-writer to make it demonstrate its options. -Used the pictures on an instruction to figure out how to play a game.
<p>Print is used to provide others with information</p>	<ul style="list-style-type: none"> -Pretended to write down an address and a map and gave it to other children who were playing fire-fighter with her. -Helped to make a pizza menu for the other children to use while playing restaurant. -Wrote a letter to Katie's sister to tell her when to pick Katie up. -Wrote a note to give to a child playing the animal doctor telling him that someone had an appointment. -Wrote a letter to a friend to tell her what we did that day. -Wrote a note for medicine while playing in the animal hospital center. -Wrote 911 to instruct another child to call an ambulance.

Table 4.1 continued: Functions of Print

Code	Description of Amy's Behavior
<p>Print is used to provide a label</p>	<ul style="list-style-type: none"> -Labeled the rooms on a blueprint -Labeled the different parts of a picture. -Asked me to read the words on a "Children Around the World" puzzle because she wanted "to know all the kids names." -Asked me to label her flower pot.
<p>Print is used to test skill of others</p>	<ul style="list-style-type: none"> -Gave a parrot an eye test. -Gave a friend a letter identification test while playing school. -Had a contest with a friend to see who could read more names on the class mail-boxes.
<p>Print is used to organize</p>	<ul style="list-style-type: none"> -Used the labels on shelves and tubs to reorganize centers. -Instructed other children to put toys away according to labels. -Told another child that he was using the wrong folder to examine a dog in the Animal Hospital. -Told classmates to put work in their folder while playing school. -Looked through the animal folders to find the folder that corresponded to the animal she was examining.

Table 4.1 continued: Functions of Print

Code	Description of Amy's Behavior
<p>Print is used to identify ownership</p>	<ul style="list-style-type: none"> -Identified her room on a house plan by putting her name on it. -Told a friend she had to write her name on a check so the bank would know who wrote it. -Was able to identify a note as hers because her name was on it. -Told another child that a toy belonged to the teacher because the teacher's name was on it. -Identified her own art work by looking for her name. -Wrote the name of who she was sending a letter to on an envelope.
<p>Print is used to tell a story</p>	<ul style="list-style-type: none"> -Asked me to dictate a story to accompany a picture she had drawn. -Used sidewalk chalk to draw a picture and write a story about bubbles. -Told a friend to write words that tells about his picture. -Told me a story about a picture, and then decided to write about it. -Wrote a story to accompany the picture she had drawn.

Table 4.1 continued: Functions of Print

Code	Description of Amy's Behavior
<p>Print is used to fill time or entertain</p>	<ul style="list-style-type: none"> -Flipped through magazines while waiting in Animal Hospital center. -Went to read a story because she was "too tired to play." -Looked at a cook book with friends pointing out food she liked. -Entertained herself by playing with letter stencils. -Looked at books when she knew play-time was almost over saying, "We don't have time to play house." -Lounged on the sleeping bag and flipped through travel brochures.
<p>Print is used as a resource for information</p>	<ul style="list-style-type: none"> -Found the name of a crane in a book. -Copied words from book to make a pizza menu. -Referred to a picture menu to make an order -Looked at grocery store ads to see what items were on sale. -Looked at a book to see what animals were in a circus. -Referred to a book while examining a toy dog. -Copied the word tiger off a friend's shirt to include on a picture.

Table 4.1 continued: Functions of Print

Code	Description of Amy's Behavior
<p>Print is used to influence or direct other's behavior</p>	<ul style="list-style-type: none"> -Made a sign that read "No Dogs" so another child would quit playing dog and knocking down her blocks. -Pointed out the rules on the rule board to make another child share. -Showed another child a book to convince him that fire trucks were not black. -Tried to get another child to stop crashing her car by writing him a ticket. -Made a "Line Starts Here" sign to show the class where to line up. -Put "Do Not Touch" sign on circus toys in the block center.
<p>Print is used to gain entrance, or reserve space</p>	<ul style="list-style-type: none"> -Made children sign-in at the Animal Hospital. -Filled out a fishing licence. -Made a child sign a reservation book to get into the restaurant. -Told a child to call for an appointment at the Animal Hospital so she could write it down. -Wrote her name on a paper and placed it by the typewriter to save her place stating, "this means I'm next."

Table 4.1 continued: Functions of Print

Code	Description of Amy's Behavior
Print is used to designate money	<ul style="list-style-type: none"> -Told another child that the five on a dollar bill means it is a big dollar. -Told a child to write a check when she did not have enough play money. -Used checks and play money to play store.
Print is used to convey feelings.	<ul style="list-style-type: none"> -Wrote a letter to her mother to tell her she was mad at her. -Drew a picture of something that made her happy and asked the teacher to write a story. -Wrote a letter to the teacher to tell her that she does not like substitutes.
Print is used to record information	<ul style="list-style-type: none"> -Wrote an address while playing fire fighter. -Wrote a report about a fire to put out in the Fire Station center. -Wrote an order while playing restaurant. -Wrote marks on an information sheet while playing doctor. -Wrote a phone message in the office center. -Wrote an itinerary for a trip while playing travel agent.

Table 4.2: Concepts of Print

Code	Description of Amy's Behavior
<p>Print is made up of separate words</p>	<ul style="list-style-type: none"> -Used spaces between letter clusters in letter strings, then pointed at each cluster of letters as a separate word while reading the story. -Pointed to one word at a time while reading "Share with friends." rule off the board. -Pointed to one word at a time while retelling familiar stories.
<p>Print carries the message</p>	<ul style="list-style-type: none"> -Copied words off of environmental print cards to make a shopping list. -Told me that I read the words because I am the teacher, but she can only look at the pictures because she cannot read. -Asked me to read the story she wrote under her picture using a letter string. -Told me her picture was not a story because she did not write words.
<p>Print has its own type of language</p>	<ul style="list-style-type: none"> -Asked me to "read a book not just tell the pictures" when I was paraphrasing an unknown book to speed up the reading. -Begins telling stories she has written with the phrase "once upon a time." -Recognized rhymes in stories stating, "those words sound the same."

Table 4.2 continued: Concepts of Print

Code	Description of Amy's Behavior
<p>Print has directionality, orientation and return sweep</p>	<ul style="list-style-type: none"> -Pointed at words from left to right and top to bottem while retelling familiar stories. -Was able to indicate where to start reading a story and which direction to go. -Wrote letter strings from left to right and top to bottem.
<p>Print holds a permanent message</p>	<ul style="list-style-type: none"> -Asked me to read a poem I read the day before stating, "I know it says 'Jack and Jill' because we read it yesterday." -Was able to repeat the words of familiar stories using self-correction. -Informed Ms. Karen that she missed a page while reading a familiar book. -Got upset when the teacher read a her letter-string different on two readings.
<p>Understanding of punctuation.</p>	<ul style="list-style-type: none"> -Stated that the a dot means the end. (She did not indicate knowledge of a sentence.) -Used an exclamation mark in her "Happy Happy Happy" story. -Asked what a question mark was while reading a story.

Table 4.2 continued : Concepts of Print

Code	Description of Amy's Behavior
<p>Print and pictures are related</p>	<ul style="list-style-type: none"> -Stated that she had the wrong cook book because the pictures all had dinner stuff instead of desserts. -Used the pictures in a cook book to decide the ingredients in a cake. -Used the pictures to help decode words while reading Are You My Mother by P.D. Eastman. -Used the pictures on an instruction sheet to figure out how to play. -Predicted what a new book was about based on the pictures.
<p>Print has special features</p>	<ul style="list-style-type: none"> -Corrected another child, while reading the familiar book Are You My Mother by P.D. Eastman, when she read "tractor" instead of "snort" by pointing to a word that began with an "S". -Identified friends' mail boxes by finding the first letter in their names. -Worked to listen to sounds in words while writing with friends or the teacher. -Identified the capital letters A B C D E G H I J O P S T W X Y and Z while playing in the Animal Hospital. -Identified the capital letters A B C D E H I K L M N O P R S T U W X Y Z while playing with an ABC puzzle.

Narrative Description of Amy's Play

Amy demonstrated her knowledge of print each day as she naturally played in the literacy-enhanced play centers. In order to help the reader best understand how Amy incorporated literacy into play I first give a narrative description of Amy's play in each of the centers. In my description I will concentrate on explaining how Amy incorporated literacy into natural play activity. After each description I briefly describe what Amy's actions revealed about her knowledge of literacy.

Home-Living Center

The home-living center consisted of a variety of play items designed to provide children with opportunities to enact play schemes they might find at home. To facilitate literacy-directed play in the home-living center I added many literacy props. On the table, I set place mats that included pictures and labels of food items. I positioned a telephone message pad and telephone book next to the phone. With the dress-up clothing, I placed wallets and purses stocked with play money, checks, business cards, movie rental cards, appointment books, and pens. Near the baby dolls, I set baby care items such as a baby wipe container, formula can, baby food jars, and empty powder and lotion

containers. In the kitchenette area, I added cookbooks, a recipe folder, blank index cards, note pads, stationary, envelopes, catalogs, pens, and a calendar. I put store advertisements and laminated coupons in a holder in the grocery cart.

Amy enjoyed many different self-initiated play themes in the home living center including: cooking, restaurant, and grocery store. Her play in this center generally consisted of themed play that incorporated a great deal of literacy into the play. In this center Amy tended to engage in interactive play with one or more friends as she developed role defined play schemes. Amy and her friends took time to designate roles, set the scene, and assign props in order to facilitate the play.

Cooking Theme. Amy particularly enjoyed playing cook in the home-living center. An example of a cooking theme took place as follows. One morning Amy entered the classroom and went to the home-living center after greeting a few of her friends. Macy and Molly were already in this center playing with dolls. Amy asked the other girls if they wanted to play "cook," but they declined. Amy gathered a cookbook, large bowl, measuring spoons, and measuring cups and began flipping through the pages of the cook books. I asked if I could join the play. Amy replied that I could be the "dumper" handing me the measuring cups.

Amy continued to flip the pages of the cookbook. I asked, "What are you wanting to cook?" Amy replied, "I want to bake a birthday cake for my baby." She put that cookbook down and looked for a different one. Amy made the comment, "This book only has dinner food." I asked Amy how she knew that this book had dinner foods. Amy replied, pointing to the pictures, that, "The pages all have dinners stuff." Amy continued to look through the cookbooks. Finally, Amy picked another book stating that, "This one is better it has good stuff." I asked Amy how she knew this book was better. Amy replied by pointing to a word at the top of the book and stating, "This says cakes. See." The word actually said desserts, but a cake was pictured.

Amy began to hand me pretend ingredients and called out "three eggs (three eggs are pictured on page), one cup flour, one-half butter (pointing to the one-half symbol on the page), ten cups sugar." As she called out ingredients she pointed to the pictures on the page and the words occasionally. Then she pretended to mix the cake, put it in a pan, and place it in the oven. Amy returned to the book, pointed at the words and said, "Cook for three minutes then put frosting on." Amy paused for a brief moment then told Macy to take the cake out of the oven. Macy ignored her request so Amy pretended to take the cake out of the oven, spread on

frosting, and began to pass out pretend cake to her friends and baby dolls.

In this example Amy used a cookbook to support her pretend play. While looking at the cookbook Amy exhibited an understanding of the importance of both pictures and print in a text. When Amy refers to the picture to find out the type of food she wanted to cook she clearly exhibited an understanding that the pictures give a hint about the message. By pointing at the print when she directly stated that the book said something, Amy demonstrated that she knew the print held the message not the picture. The fact that Amy chose to use the cookbook demonstrates that she understood that print can provide instructions.

Restaurant Theme. Amy also enjoyed playing restaurant in the home-living center. This play theme consisted of Amy, and a group of friends playing the roles of waiter/waitress, cook, and customers. The restaurant scenario occurred many times while I observed. The props that supported the restaurant scenario included: an order pad, food sheets with pictures of food and labels, dishes, play food, an apron, and a kitchenette area. One example of this play scenario took place like this. Amy and Katie decided to play restaurant. Katie played the role of customer, and Amy was the waitress and cook. Katie tells Amy she will

have eggs, bread, and juice. Amy began to use the food sheet to copy the order. She copied the words "fried egg" and began to write "bread" then finished with a squiggle (see Figure 4.1). I asked Amy, "What are you writing?" Amy replied, "I am the waiter so I have to write what Katie wants to eat. I questioned Amy to discover if she knew why waitresses write things down. Amy replied, "So I can remember what to cook."

Amy then went to the kitchen and began to prepare the food, pretending to look at the order several times. After she prepared the food, she brought the play food back to Katie telling her, "Here is your eggs and bread." Katie then tells Amy that she wanted her bread toasted. Amy informs Katie that she did not order her bread toasted and points to the marks on the order form. Katie then tells Amy to toast it anyway. Amy made a mark (no letters) on her order pad and took the piece of pretend bread to the kitchen to put it in the oven.

In this play scheme Amy demonstrated that she understood that print is used to gain and record information and to influence others. Amy used print to gain information when she copied the order from the food sheet and referred to the order while pretending to prepare the food. She used print to record information when she wrote the order down. Amy tried to influence Katie using print when she showed Katie the order.

Fried EGGS

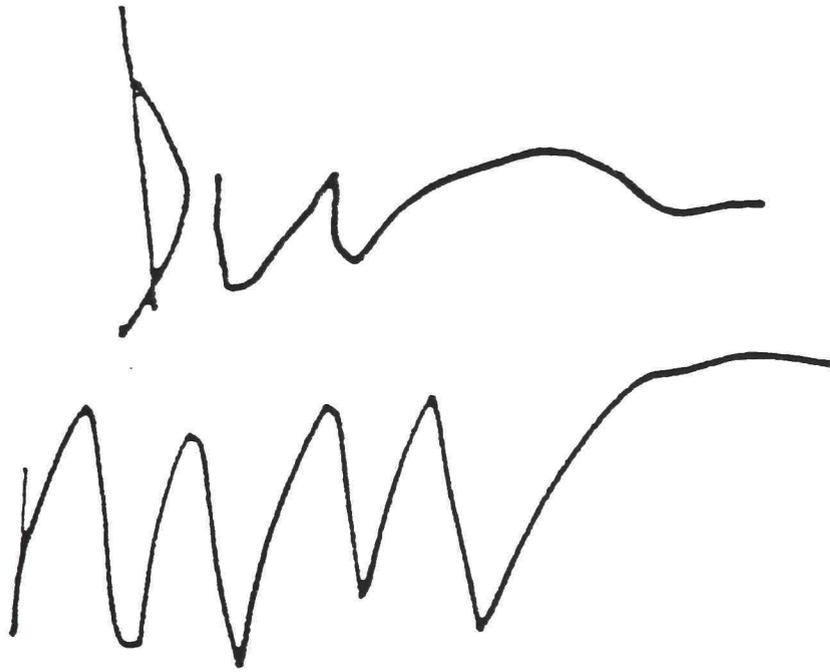


Figure 4.1: Amy's restaurant order.

Grocery Store Theme. Another recurring play scheme that occurred in the home-living center was the grocery store scenario. At times Amy pretended to go to the grocery store with the aid of a few props that were consistently present in the home-living center. At other times I rearranged the entire home-living center to resemble a grocery store with shopping carts, shelves with food, cash register, play money, coupons, grocery store ads, checks, purses, wallets, credit cards, and paper for lists. While playing grocery store the children designate two roles, "shopper" and "payer" (clerk).

One grocery store scheme occurred as follows. Amy entered the home-living center which was designed as a grocery store. Brittany and Steven were already playing grocery store. Amy asked if she could be "the payer." She then stands on the blue trunk in the manipulatives center which the children had designated the payer's bench, and began to punch on the toy cash register and accept money. Amy tells Brittany that she needed to pay twenty-five dollars for her food. Brittany tells Amy that she does not have that many dollars. Amy tells her to write a check. Brittany wrote some scribbles and a string of numbers on the check. Amy then tells her, "You have to put your name on the check so I know who wrote it." (Amy and I had discussed check writing several days

earlier) Brittany put her name on the check. Amy then told Steven he had to pay ten dollars for his food. Steven began to count out ten dollars, then Amy saw a five dollar bill and told him that was enough because "this one is a big dollar" (pointing to the five).

Amy and Steven then traded roles. Amy got a purse, checks, pretend money, coupons, and a store ad and began to shop. Amy looked at the grocery store ad and told Brittany that the meat was on sale at Albertson's (looking at a United grocery store ad). Brittany and Amy pretend to go shopping at Albertson's to buy meat. Amy then flips through her coupons and decides to write a list. She made a series of squiggly lines (see Figure 4.2). I asked Amy, what she was writing. Amy replied, "A pretend shopping list." I then inquired as to why Amy considered the shopping list a "pretend shopping list." Amy stated, "Because I am not using real writing. See." As Amy walked around putting items in her basket she flipped through her coupons and look at her list. When Amy was done she brought her basket to Steven who pretended to ring it up. Steven tells her that her food costs 13 dollars. Amy wrote a series of squiggles (no numbers) and her name on a check (see Figure 4.3).

In the grocery store play scheme Amy revealed a great deal of emergent literacy knowledge. Throughout these play schemes Amy demonstrated knowledge of how

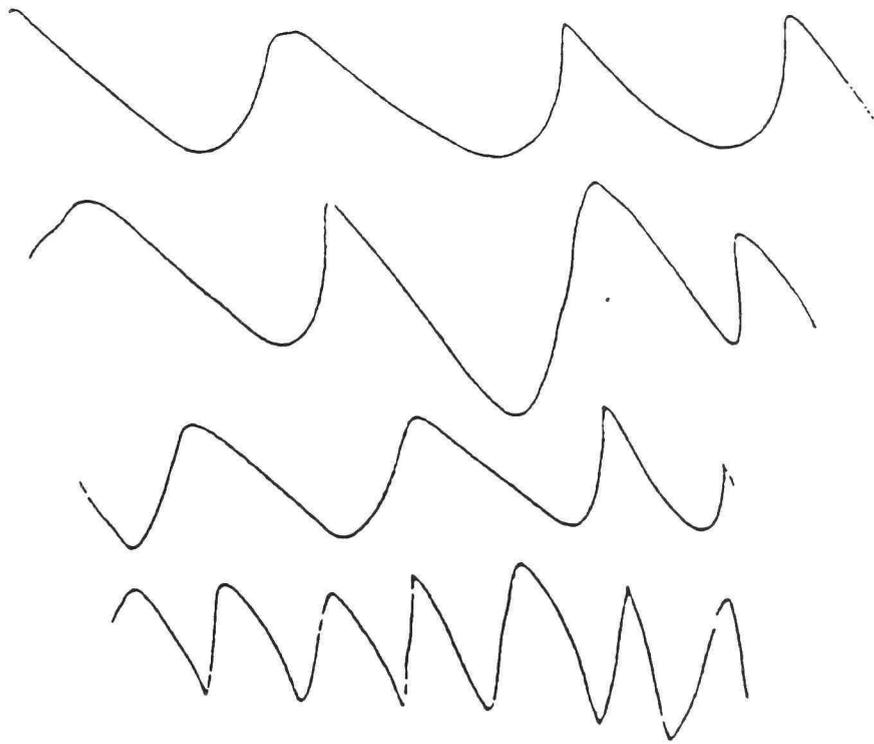


Figure 4.2: Amy's shopping list.

print designates money. She understood that the numbers have meaning on paper dollars and that a check can be used in place of money. Amy's use of the grocery store leaflet, coupons, and a list illustrates her understanding that print can be used to gain information and aid memory. The fact that Amy knew her list was pretend because she was not using "real" writing reveals her understanding that print is made up of special symbols.

Block Center

The block center contained various types of blocks and play props that changed according to the unit being studied. During the period of data collection the play props revolved around the following units: building and construction, auto repair, transportation, jungle animals, farm animals, and the circus. For example, when the class was studying buildings and construction, the literacy items included real blueprints, floor plans, tool catalogs, work orders, paper of various sizes, pens, pencils, and markers.

Amy did not play in the block center as often as she did the other centers. When in this center her play generally was less role defined and more rough and tumble in nature. For example, Amy might spend time in the block center building a tower of blocks as high as

she could and then knocking them down. Her rough and tumble play in this center was generally solitary in nature. Amy went to this center for solitary play when she seemed to be feeling particularly tired, grumpy, or frustrated with a friend.

Amy spent more time in the block center when the play props offered an explicit context for play which allowed her to color or draw. For example, during the period when we studied building and construction Amy played in the block center quite often. Amy enjoyed drawing "house plans" (blueprints) with her friends. They used the rulers and other blocks to draw squares and other connected shapes on large sheets of butcher paper. Some of these drawing included labels copied from house plans I had made.

On one of these occasions I asked questions to see if Amy understood the use of her drawing. When I asked what they were making Amy replied, "One of these things that tell builders how to make the house" (gesturing to a copy of blueprints). I then asked Amy, "How does this paper tell the builders how to make a house?" Amy replied, "This is just a small picture of what the big house will look like. See these squares and stuff tell us where all the rooms will be." (A contractor had visited our room previously and explained the blueprints, and I had read books on building that had

included a description of blueprints.) I then asked how the builders knew where the different rooms should go. Amy pointed at the words on the set of blueprints and stated, "See, this says what the rooms are. You can also see the pictures of the fans and stuff. This one even has a potty." The girls then used a set of blueprints I helped some other children label, to copy the names of the different rooms onto their blueprints.

Amy's use of blueprints demonstrated her knowledge that print is used to provide instructions and label. In her dialogue Amy explicitly explained the use of blueprints for instruction. She understood that the blueprints were a scaled down model of what the real house will look like. By pointing directly at the print in her explanation, Amy demonstrated that she understood that the print provided a label for the pictures.

While in the block center Amy often found it frustrating that other children would knock down her structures. One day Amy used an inventive way to get one child to stop doing this. Amy, Katie, and Dennis were playing in the block center. Katie and Amy were trying to build a town with the wooden blocks and road signs. Dennis kept pretending to be a dog and knocking down their buildings. The girls fussed at Dennis for a while then they came to me for help. I asked them what we could do to keep Dennis from knocking down the blocks.

Amy told me to make him play in a different center. I told the girls that they were going to have to work it out on their own.

Katie and Amy went in the reading center and sat in comfortable chairs. At first I thought they had given up on playing in the block center, but then I heard their conversation and realized that they were still trying to figure out a way to make Dennis stop knocking down their building. All of a sudden Amy declared, "We need to make a sign, just like Mrs. Michelle did for the water!" (I had just put a "do not touch" sign on the water faucet in the classroom sink because children had been playing with it.) Amy and Katie decided to write a sign that said "No Dogs" to tell him to stop. The girls got a piece of paper from the cupboard and began to write the sign. They were able to write "NO" quite easily. Katie was doing the writing but Amy was helping to dictate. Amy told Katie that dog started with a D and has a g, but she could not help Katie write a g. Katie wrote the D, and Amy went to ask Greg how to write a g. She then decided to tell Katie to look at the dog poster on the wall and copy the word dog. When they were finished I asked Amy what the sign said. She replied, "No Dogs" (see Figure 4.4). They hung the sign in the block center. (I asked Dennis read the sign and reminded him that it was not kind to knock over friends' buildings.)



Figure 4.4 Amy and Katie's "No Dogs" sign.

Amy's development and use of this sign revealed many things about her knowledge of print. By searching for a the way to make a "g" Amy demonstrated that she understood that print has a letter sound relationship and letters are made by special symbols. By using another print source to write "dog" Amy displayed her understanding that print can be used to gain information. By using the sign to keep Dennis from knocking down her building Amy is showing that she understands that print can be used to influence or direct others behavior.

At times, Amy did engage in interactive, role-defined, literacy-directed play in the block center. She engaged in higher levels of dramatic play in the block center when the play props provided an explicit context. One day, Amy and Katie planned a play scheme before they came to school. They designed their own play in the block center by requesting play props, recruiting players, and making items for play.

On this morning Amy entered the room and immediately asked if I would get the animals out so she could make a circus with the blocks. Katie had already made the same request when she entered. I told both girls I would go get the animals as soon as my assistant arrived. The girls then went to the art table which was stocked today with scented markers, crayons, colored

chalk, water colors, water color pencils, and various kinds of paper and began to work diligently on a project.

My assistant, Karen, arrived so I went to get the plastic animals. I got out all types: circus, jungle, and farm animals. I purposely dumped all three tubs into the middle of the block center. I wanted to see if the children could classify the animals. Amy, Katie, Molly, and Greg began to talk about the various animals and make a circus. They used the blocks to section off three large circles and what seemed to be fences to the side. I tried to ask questions but the girls told me it was a surprise.

Amy asked me for the book we read several weeks earlier about circuses. The children flipped through the pages of the book and made a few modifications to their circus. After discussing it among themselves they decided that gorillas are not in circuses only monkeys, and that the bear could be in the circus. (The book pictured a bear dressed as a clown but no gorillas.) By this point Brittany and Josh had joined the play. When the four children finished filling the cages and circles they had made out of blocks the group went to the art center to make things for the circus. Amy copied the "Do not touch" sign on the water spout to put on the circus toys. All the children worked together to make tickets

and clown faces for the circus (see Figure 4.5 for Amy's circus tickets). Macy joined the children when Amy told her she would be a good clown maker because she always colored very brightly. Amy showed Macy the pictures of the clowns in the circus book. Greg directed the completion of the tickets. Katie worked with the other children on clown masks. Amy made a sign for the circus. Amy copied the word "circus" from the book cover and drew a small animal picture. The children finished their work and went back to the block center. Three of the original four children Amy, Katie, and Greg handed out tickets and enacted a circus show. I was amazed by the fact that these children sustained one play theme for one hour and twenty five minutes.

The circus dramatization revealed Amy's knowledge of many functions of print. By using the book to decide what animals belong in the circus Amy demonstrated that she knows print can be used to gain information. The use of tickets reveals that Amy understood that print is used to gain entrance. The use of a circus sign illustrates that Amy knows that print is used to provide others with information. The use of the "Do not touch" sign shows that Amy knows that print can be used to influence or direct others behavior.



Figure 4.5: Amy's circus tickets

Puzzle and Manipulatives Center

The puzzle and manipulatives center contained puzzles, games, and manipulatives. Only three or four items were available in this center at a time and I changed them frequently. The items in this center were designed to encourage exploration, problem solving, letter identification, and small motor development. Only two to three children were allowed in this center at a time.

Amy enjoyed playing in the puzzles and manipulatives center. While playing in this center Amy had many opportunities to explore what she knew about letters and sounds. For example, one day Katie and Amy entered the puzzle and manipulatives center and began working on putting together two floor puzzles. One was a large alphabet puzzle and the other was a number puzzle. The two girls put together the number puzzle counting the numbers as they went. Then they started working on the alphabet puzzle. Amy told Katie that they needed to look at the picture on the box in order to see where the pieces go. They worked on the puzzle locating the letters on the box and saying the names of the letters together. Katie knew some of the letters; Amy knew others. They asked for my assistance on three letter neither of them knew (Q, G, Y).

On another occasion Amy took an inventory of the letters and numbers that she knew. Amy began by playing with an ABC puzzle. She then started dividing the puzzle pieces into two piles. When she was finished she asked Molly and Macy to look at her piles. She announced that "these are the letters I know and these are the ones I do not." (All the letters were capital letters. She reported to know A, B, C, D, E, H, I, K, L, M, N, O, P, R, S, T, U, W, X, Y, Z. She picked up each letter and correctly told the other girls its name. She did the same with the 0-10 number puzzle. She did not know the numbers zero or nine.

Amy also had the opportunity to explore her knowledge of environmental print with some teacher-made environmental print games in this center (see Figure 4.6). One game Amy enjoyed was "environmental go fish." This game consisted of small cards made with pictures found in coupon ads and other leaflets. There are two of every card, and the object of the game is to get matches by asking the other players for cards. The children have to ask for cards by the names on each card. They are all very familiar names like Coke, Gatoraid, and McDonalds.

On one occasion Amy and Greg played "environmental print go fish." Amy demonstrated her ability to read or recognize many environmental print items, such as McDonalds, Cheerios, Gold Fish Crackers, and Campell's

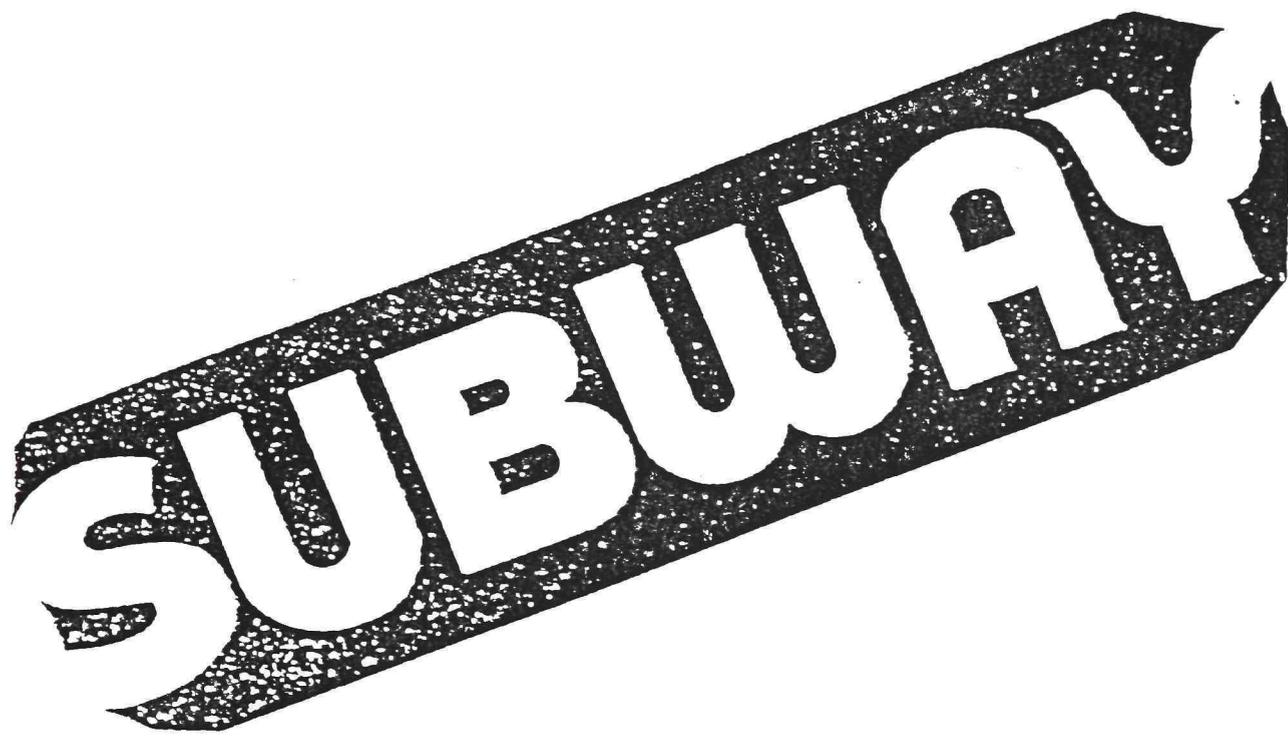
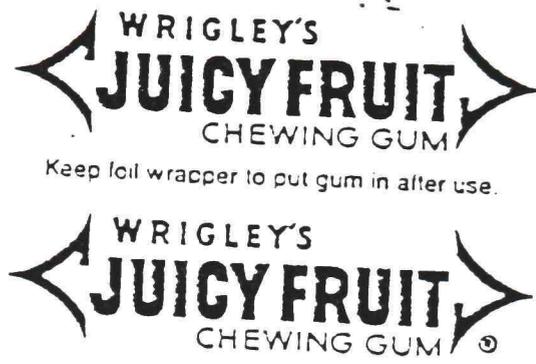


Figure 4.6: Examples of environmental print cards.

Soup. To ask for many of these cards she only had to look at the picture, but a few have no picture such as Coke and Sprite and Discover Zone. Throughout the play the two children consistently helped each other with different cards.

This center also gave Amy an opportunity to practice following written instructions. One day Amy, Katie, and Greg decided to play the "Scrambled Egg" game. This was a new game to our class and none of the children had played it before. I intentionally got busy so the children would try to figure out how to play the game on their own. Amy got out the instructions that were accompanied by pictures. The three children used the pictures and some problem solving to figure out how to play.

As soon as I seemed available, Amy asked me to read the instructions. I told Amy, "It looks like you figured out how to play on your own." Amy responded, "We looked at the pictures, but we could not read the words." I asked Amy to tell me what she thought the pictures were telling them to do. I then read the instructions, and the children were pleased to learn that their predictions were correct. Then the three continued to play the game.

The puzzles and manipulative center provided many opportunities for Amy to demonstrate her understandings

of print. The letter games and puzzles provided a means for Amy to identify the letters and numbers she knew. The opportunities she had to explore environmental print and instructions revealed that Amy understood that pictures give a hint about the message in a text. The clear distinctions that Amy made between looking at a picture and having the ability to read revealed her knowledge that the print carries the message not the pictures. Through playing the various games Amy demonstrated that she understood that print can be used to gain information or provide instructions.

Art Center

The art center consisted of a table stocked with art supplies that changed according to the daily projects. The center always contained: paper, pens, pencils, markers, crayons, glue sticks, and scissors. Other supplies were offered when needed for a project. The daily projects centered around the units being studied. The projects were designed to encourage creativity and initiative. Children were encouraged, but not required, to include writing in their art. Amy used many emergent-writing skills as she incorporated writing into her art projects. The art center gave Amy many opportunities to practice her emerging literacy skills.

At times Amy asked me to write her stories for her. (I did this for the children often during art.) One day Amy began to tell me a story of a fun thing she liked to do with her dog. I asked her to draw a picture of the story. When she finished, Amy asked me to write the words to her story. I told Amy that she needed to speak slowly because I was going to write exactly what she said. I then read the dictation back to her. She said that it sounded funny. I told her she could tell it again and I would rewrite the story and paste it over the other version. She told the story again very slowly, asking me to read it several times as we worked. In the end the story read, "I likes to jump in a hooly hoop with my dog. My brother holds and moves it." In this example Amy demonstrates that she understands that print is used to tell someone a story. She also demonstrates that she understands that print has to have a special language when she made me rewrite the story because it sounded "funny."

At other times Amy would attempt to do the writing herself, utilizing many different print sources and asking for assistance when needed. On another day in the art center the children were provided with a number of different construction paper shapes and pictures of different kinds of signs. We talked about each of the signs. Amy choose a red circle and copied the word

"stop" from one of the signs. I asked her what her sign said, and she replied "stop." She then choose a yellow triangle and began to copy the word "yield" (see Figure 4.7). Soon Amy looked up at me and said, "I don't know what this is" (pointing to her sign). I told her the word and explained and what it meant. I then told the children to look around the room and make up their own sign that could be used in our classroom. I gave them a few examples like the "Do Not Touch" sign on the water fountain. Amy got up and walked around room. Then she came back very excited. She had decided that she wanted to make a "Line Starts Here" sign (see Figure 4.8). Amy and I worked together to interactively write the sign by saying the words slowly and listening for the sounds. I provided a high degree of support and letter formation modeling.

In this example Amy revealed her knowledge of several functions of print. When she copied the stop sign she demonstrated her understanding that print can be used as a resource for information. When she asked about the meaning of yield she demonstrated that she understood that the print has meaning or provides information. When she made the "Line Starts Here" sign she demonstrated that she understood that print is used to direct other people's behavior.

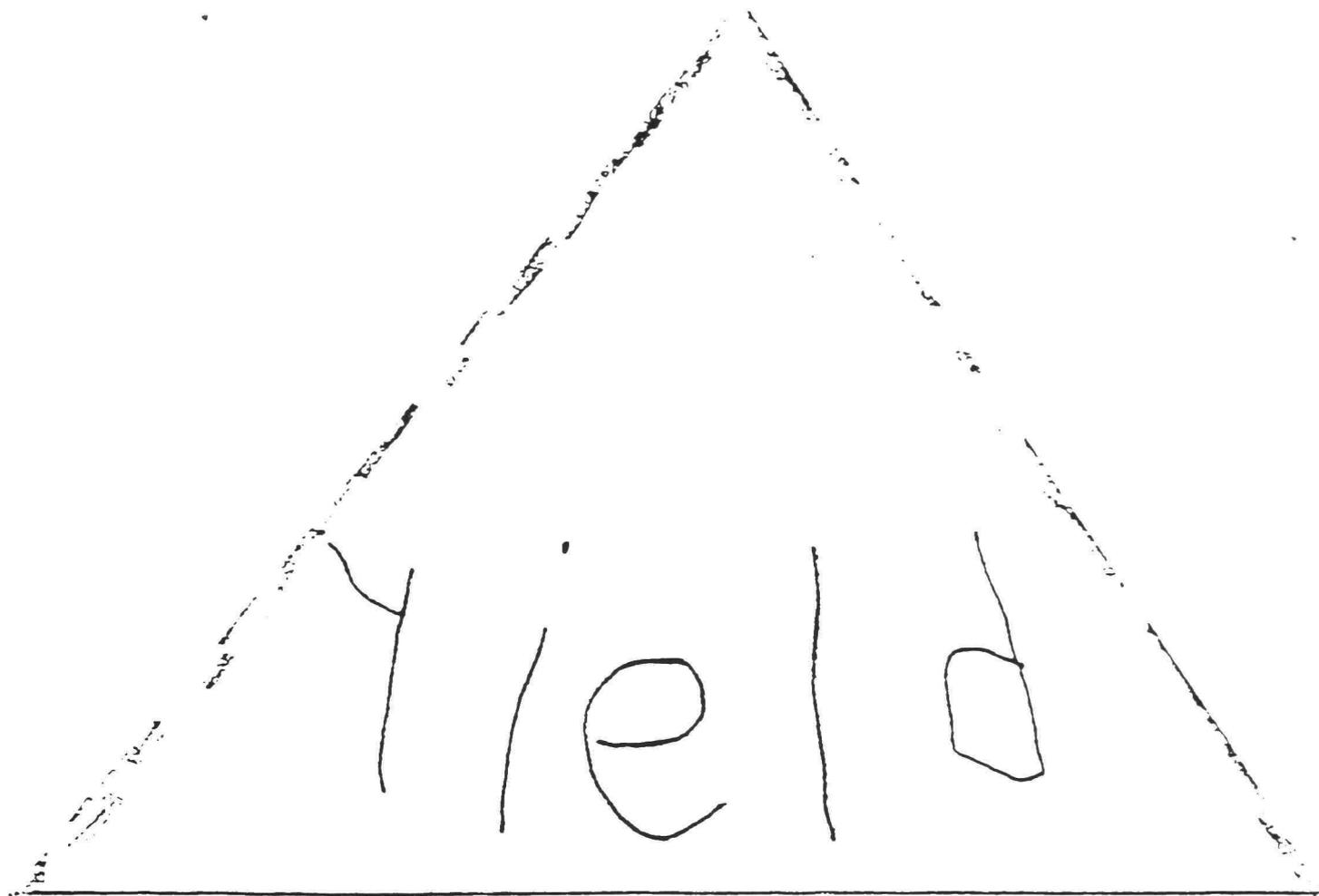


Figure 4.7: Amy's yield sign.

L i A d
S t a r t s
H e r e

Figure 4.8 Amy's "Line Starts Here" sign.

Amy often used information from books or other sources of print while working in the art center. One day I suggested that the children draw pictures of different colored fire trucks. There were many pictures of different kinds and colors of fire trucks and several books provided for the children to read and consult. We had read a few informational books on fire trucks the previous day. Amy and Macy both drew pictures of fire trucks and made them lots of different colors. Amy looked at a few books to see if fire trucks could be green. We then talked about why fire trucks might be certain colors. Amy said it was, "So they can get by a bunch of cars and people." I asked her what she meant by that. She responded, "You know, so them can be seen like how you told us in the book yesterday." Dennis then tried to color a fire truck black. Amy told him it could not be that color. She made him look at the book. After looking at the book, he decided that he agreed with her.

In this example Amy demonstrates that she understands that books can be used as a resource for information. She first used print as a resource for information when she checked the books to see what colors fire trucks can be. She also used print as a resource for information when she answered my question by referring to information she had learned in a book. This example also shows that Amy know that print can be

used to influence someone else's behavior when she used a book to convince Dennis that fire trucks cannot be black.

Amy often used the supplies in the art center to write letters. Our class had written many different kinds of letters. Some examples of letters we had written include: thank you letters to class visitors, get well letters to sick classmates, and a letter to our director asking for balls our class could play with. I encouraged letter writing by having a class post office and a place to put out-going letters. I also solicited letters from class visitors, parents, and other classes that we could read and enjoy.

One morning Amy came to school very upset. She went to the art center and began to draw and write. She wrote a long string of letters with spaces. I asked her what she was writing, and she replied that it was, "A letter to my mom. I am very mad." She was writing from top to bottom and left to right. As she wrote she said the words slowly and scanned the ABC strip in front of her. She read the note as, "You are mean because I want chocolate milk cake" (see Figure 4.9). I got her an envelope and helped her write "mom" on the front, and then she put the note in her notebook to take home (see Figure 4.10).

AN ECS AEC
ACEA ECHOF
MOA CXCE
AEEONE

Figure 4.9: Amy's letter to her mom. Read as, "You are mean because I want chocolate milk cake."

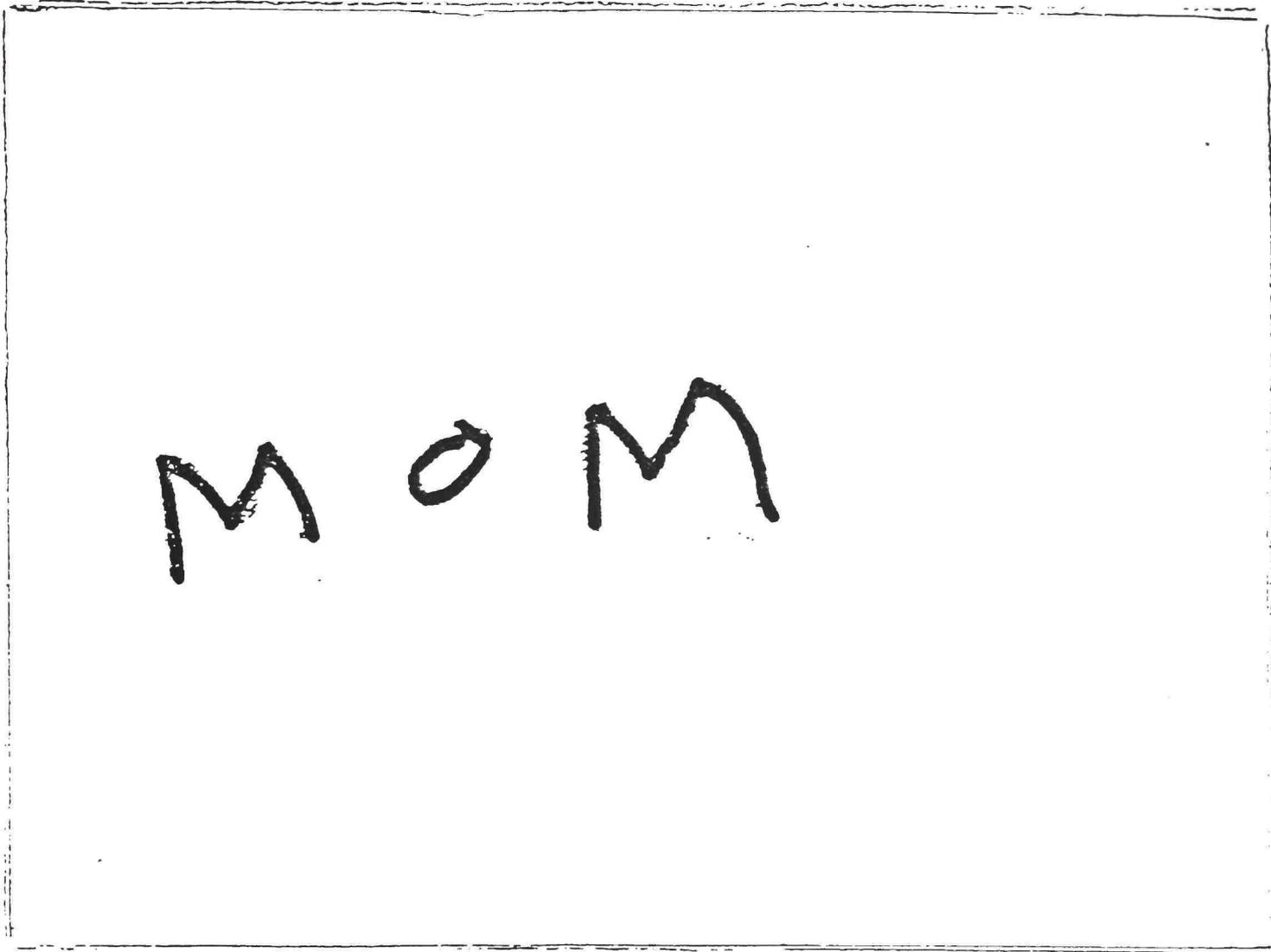


Figure 4.10 Envelope.

On another occasion Amy wrote a letter to her friend Katie, who was absent. The text consisted of a variety of random letters. Amy made sure to put spaces and a period at the end of each letter string. Then she folded the paper and brought it to me (see Figure 4.11). I asked her, "What do you have there?" Amy replied, "A letter to Katie." I asked Amy to read the letter, but she said it was a secret. I inquired as to why she chose to write the letter instead of waiting until Katie came back. Amy replied that, "I did not want to forget." Amy then asked me to help her pick Katie's mail box. She had chosen two boxes that had the same beginning and ending sound as Katie's (remember pseudonym) name. I helped her decode the rest of the word, the two names were very similar.

Through her letter writing Amy revealed her knowledge of many functions of print. She wrote letters for a variety of purposes to varied audiences. Amy's letter to her mother demonstrated that she understood that print could be used to convey feelings. Amy's letter to Katie revealed that Amy understood that print could be used to provide information. Amy also wrote a letter (with my assistance) to another classmate asking him to stop calling Katie names. This example revealed that Amy knew that print could be used to direct others behavior. In her letter writing Amy also revealed her

DEPOSIT TICKET

Amy

19

MAY NOT BE AVAILABLE FOR IMMEDIATE WITHDRAWAL

SIGN HERE FOR CASH RECEIVED (IF REQUIRED)

FNB
THE PLAINS NATIONAL BANK
of West Texas
Lubbock, Texas 79408-0771

CASH	CURRENCY		
	COIN		
<small>LIST CHECKS SEPARATELY</small>			
TOTAL FROM OTHER SIDE			
TOTAL			
LESS CASH RECEIVED			
NET DEPOSIT			

80-2299/1113

USE OTHER SIDE FOR ADDITIONAL LISTINGS

BE SURE EACH ITEM IS PROPERLY ENDORSED

Figure 4.11: Amy's Letter to Katie.

knowledge of many concepts of print. including: orientation, directionality, word spacing, word formation, some letter sound correspondence, and punctuation.

Reading Center

The reading center contained a bookshelf stocked with various books. Some of the books centered around the unit topic and others were familiar, repetitive, predictable books. This center also contained either pillows and blankets, or child-size lounge chairs, in which the children could relax. Play props such as stuffed animals, puppets, and magnetic story strip pictures were also available in this center.

The reading center provided a time that Amy could spend simply enjoying books. Amy played in this center most often at the end of a play period when she knew the time left to play was limited. Amy generally chose to look at books with a friend. They would look at books together or sit with one another while reading separate books. Amy often asked my assistant and me to read books to her in this center.

I often used the relaxed setting of the reading center to question Amy about her knowledge of literacy. As Amy and I read together I would ask her questions about the book. For example one day I asked Amy, "Where

do we start reading?" Amy pointed to the beginning of the passage. I also asked her, "How do I know when one word stops and the other starts." She replied, "Because of the dots" (pointing at a period). Then I asked if I read words or pictures. Amy replied, "Silly you're the teacher; you read the words. I can't read I look at the picture." I asked Amy to "show me the first of the story and the last of the story." Amy flipped to the first of the book and the last of the book. When ask where I start to read Amy pointed at the beginning of the passage and move left to right with a correct return sweep. Amy also told me what page to start reading on when presented with a two page spread. In addition Amy could point to each word as I read the text.

When Amy read a book in that contained memorized sections she was able to apply simple decoding and self-correction strategies. Amy self-corrected an error and reread the passage when she read "follow" as "fly" but realized her error when she came to the word "fly." She often looked at a picture to help her decide what a word was. When helped by a friend, Amy was able to use the concept of rhyme to decode a word. Greg told Amy that she had to look at all the letters to read. Amy knew the word "wobble," but she could not figure out "hobble." Greg told her she could read it, because the word was the same as "wobble" but with an "H" sound, modeling the

sound an "H" makes. Amy was able to use this information to figure out that the word was "hobble." In this example Amy demonstrated an understanding of letter sound correspondence when she was able use the information Greg provided to change "wobble" to "hobble."

Amy and her friend would often read a book together supporting each other's emerging literacy skills. Amy, Brittany, and Katie worked together to read Are You My Mother? by P.D. Eastman. Each girl took a turn reading. Amy pointed to the words as she read. She looked at the picture to know what animal to say. On one page Brittany said "tractor" instead of "snort." Amy told her the word was "snort" not "tractor." Brittany pointed to the picture and said it was a "tractor." Katie told her the bird calls it a "snort." Amy said "See this word has an 's' not a 't'." (She was actually pointing at the word said, but Brittany accepted this and said "snort" instead of "tractor".) In this example Amy supported her knowledge of the familiar text by attempting to make a letter sound association. Though Amy pointed at the wrong word, she still demonstrated an understanding that "snort" begins with an "s."

At times Amy would surprise me with some knowledge she shared while we were reading. For example, one day I was reading to Macy and Amy. They chose a very long

book, and it was getting close to clean up time. I began by reading every word of the text, but I soon start paraphrasing the book to finish it more quickly. Amy then asked me, "to read the book not tell it." I asked her what she means and she told me that she wanted me to "read all the words don't just tell the pictures." This was a new book to the class and Amy's mom confirmed that she had never read it at home. Through this conversation I concluded that Amy had an understanding that books have a special type of language, which is different from telling a story.

Another common type of activity in the reading center was "playing school." The children would use the books and other items to pretend to be the teacher. On one day Amy was playing the teacher. She began by telling the girls to sit down for story time. Then she pretended to read a very familiar story. She pointed to one word for every word she said. She moved from top to bottom left to right, but paid no attention when she had too many words or ran out of words. She simply started at the top of the page again. Amy then got some work sheets out of the scrap box. She told the girls to read the instructions. She pointed to a picture of a crayon and said, "this means color," and then she pointed to a picture of a circle and said, "this means circle."

Amy had many opportunities to demonstrate her knowledge of the concepts of print while playing in the reading center. The context of the reading center also provided many opportunities for me to ask questions about specific concepts of print. Through these questions Amy was able to reveal her knowledge of orientation, directionality, return sweep, one to one pointing, picture verses print distinctions, and first and last of a passage concepts. She also demonstrated some simple decoding strategies such as rereading, checking the picture, and meaningful word attempts. While working with friends Amy demonstrated other concepts print such as letter sound knowledge, rhyming concepts, one to one correspondence, and the use of pictures to provide meaning clues.

Themed Play Centers

The themed play center changed periodically according to the unit being studied. The design of this center provided an explicit context for play that encouraged the use of literacy as a natural outgrowth of the play. During the course of data collection the following themed play centers were available: office, fire station, animal hospital, travel agency, and camp site.

Office center. The office center consisted of two tables stocked with various office paraphernalia. A working type-writer and adding machine were placed on one table. The other table contained items one might find in an office, including: message pads, pens, pencils, calendar, phone book, desk blotter, paper clips, yellow memo pads, desk planner, and a rolodex. We toured the church office as a concept building activity for this center.

Amy enjoyed playing in this center. She especially liked the typewriter and adding machine. The play in this center generally consisted of quick literacy demonstrations or exploration of the novel equipment that is not generally available to children. For example, one day Amy came in and wandered around the room waiting for the typewriter or adding machine to become available. Finally, Amy decided to write her name on a paper and put it by the typewriter. Amy told Katie, "This says I am next to write with the typer." Then she sat down and began to doodle on a piece of paper. Katie soon left the typewriter. Trent tried to sit down at the typewriter while Amy was getting a new sheet of paper, but Amy pointed to the paper and said, "I wrote this to say I am next." Trent tried to argue with her, but I told him it was Amy's turn.

Amy began to type on the electric typewriter. The auto return was set so all she had to do was type. There was a sticker on the typewriter that explained how to get the typewriter to demonstrate its features. The children thought this was fun because the typewriter types by itself adding in the child's name several times after the child types in his/her name. For the typewriter to operate in this manner the typist has to press code Q and type in his/her name when prompted to do so. Amy had done this many times and she did this now. When this was done Amy typed letter strings and her own name several times. She said it was a note to her sister, and she got an envelope to put it in. Then she wrote her sister's name on the outside. She then carefully looked at each letter on the type writer, typing some and skipping others. I asked Amy what she was doing. Amy replied, "I am typing all the letters I know the name of." This ended this play episode.

Amy did a great deal of writing in the office center that was not connected to a direct play scheme. She enjoyed writing on the various different kinds of paper available. When I asked Amy what she was doing she replied, "I'm making grownup paper work." Through this exploration Amy had the opportunity to use her developing writing skills on a variety of self-initiated projects (see Figures 4.12 and 4.13).

Urgent

Date: _____ Time: _____

While You Were Out

M: _____

Of: _____

Phone: _____

AREA CODE NUMBER EXTENSION

Telephoned <input type="checkbox"/>	Please Call <input type="checkbox"/>
Came To See You <input type="checkbox"/>	Will Call Again <input type="checkbox"/>
Returned Your Call <input type="checkbox"/>	Wants To See You <input type="checkbox"/>

Message

Signed: _____

9711

ADAMS BUSINESS FORMS

Urgent

For: _____

Date: _____ Time: _____

While You Were Out

M: _____

Of: _____

Phone: _____

AREA CODE NUMBER EXTENSION

Telephoned <input type="checkbox"/>	Please Call <input type="checkbox"/>
Came To See You <input type="checkbox"/>	Will Call Again <input type="checkbox"/>
Returned Your Call <input type="checkbox"/>	Wants To See You <input type="checkbox"/>

Message

Signed: _____

9711

ADAMS BUSINESS FORMS

Req. No.	Description	Account Forwarded
1.	_____	
2.	_____	
3.	_____	
4.	_____	
5.	_____	
6.	_____	
7.	_____	
8.	_____	
9.	_____	
10.	_____	
11.	_____	
12.	_____	
13.	_____	
14.	_____	
15.	_____	

This Account Statement Book is for use in and around the office only.

Figure 4.12: Items produced in office center.

Handwritten scribbles and a signature at the top of the page.

Initials

Prepared By

Approved By

2 3 4 5 6 7 8

Handwritten scribbles in the top row of the grid.

Handwritten characters: O, P, O, Z

Handwritten characters: 9, 3, 0, 0, 5

Figure 4.13: Items produced in office center.

While playing in the office center Amy had the opportunity to demonstrate her understanding of the functions and concepts of print. Amy's use of a note by the typewriter demonstrates her understanding that print is used to reserve space. When Amy made the typewriter demonstrate its functions she demonstrated her knowledge that print is used to gain instructions. When Amy used the typewriter to write her sister a letter she was demonstrating that she understood that print is used to provide others with information. Amy demonstrated her understanding of letter features when she made a list of all the letters she knew.

Fire Station Center. This center corresponded to the community helpers unit. The fire station center contained various play props associated with a fire station including toy fire trucks, fire hats, fire coats, play axes, play hoses, sleeping bags, and pillows. The center also contained various literacy props including paper of various sizes, pens, pencils, small note books, maps, telephone, telephone book, and message pads. This center was separated from the rest of the room using a table and cupboard. I arranged for a fire-fighter to visit the school for a tour as a concept building activity.

The fire station center provided an explicit context that encouraged Amy and her friends to engage in

interactive dramatic play. Amy used literacy as a natural outgrowth of the play in the fire station. One day Amy, Katie, Steven, and Greg decided they wanted to play in the fire station. Steven and Greg decided that they needed to pretend they were all sleeping, then the alarm would ring, and they would have to go to the fire. Amy thought someone had to stay awake to listen for the alarm and fire. Greg, Steven, and Katie pretended to go to sleep. Amy pretended to answer the phone. She wrote a squiggly lines on a paper. Then she sketched a quick map (see Figure 4.14). (We had studied maps and used rulers to draw many different kinds of maps the previous class day.) Amy rang the bell and told Steven, Greg, and Katie that they needed to wake up because there was a fire. Amy handed Greg the piece of paper and told them that this was the address and a map. She told them they needed to hurry. They put on the pretend hats and coats and pushed the fire trucks to another part of the classroom. Then they used the pretend hoses and axes to put out the fire. When the fire was out they returned to the play center and pretended to clean and put away their equipment. Amy told Greg that he put his hat in the wrong place. (Shelves were labeled.) Katie told Amy that they had to write a report about the fire. Amy and Katie sat down and began to write in notebooks (see Figure 4.15 for Amy's report). (We had read a book that

described the action of fire fighters and it included report writing. I emphasized this point and showed the children the small spiral notebooks I put in this center so they could write reports.)

On another occasion Amy orchestrated a different play scheme in the fire station after seeing an episode of 911 where children were caught in tree. Amy, Macy, and Katie pretended they were going to rescue some "kids out of a tree." They used a real map of Lubbock to act out how to get to the house by walking around the room pretending to drive a fire truck. Macy said they needed to cut the tree down, but Katie decided that the children would get hurt if they did that. Amy tried to tell the girls "they need a special truck to get the kids out," but she could not remember its name. She then went to look it up in a book. The three girls found the picture of a crane then continued to play.

While playing in the fire station center, Amy exhibited an understanding that print is used to provide other with information when she gave the other children an address and a map. Amy's use of a map revealed her understanding that print provides instructions. Amy's written report demonstrates that she understood that print is used to record information.

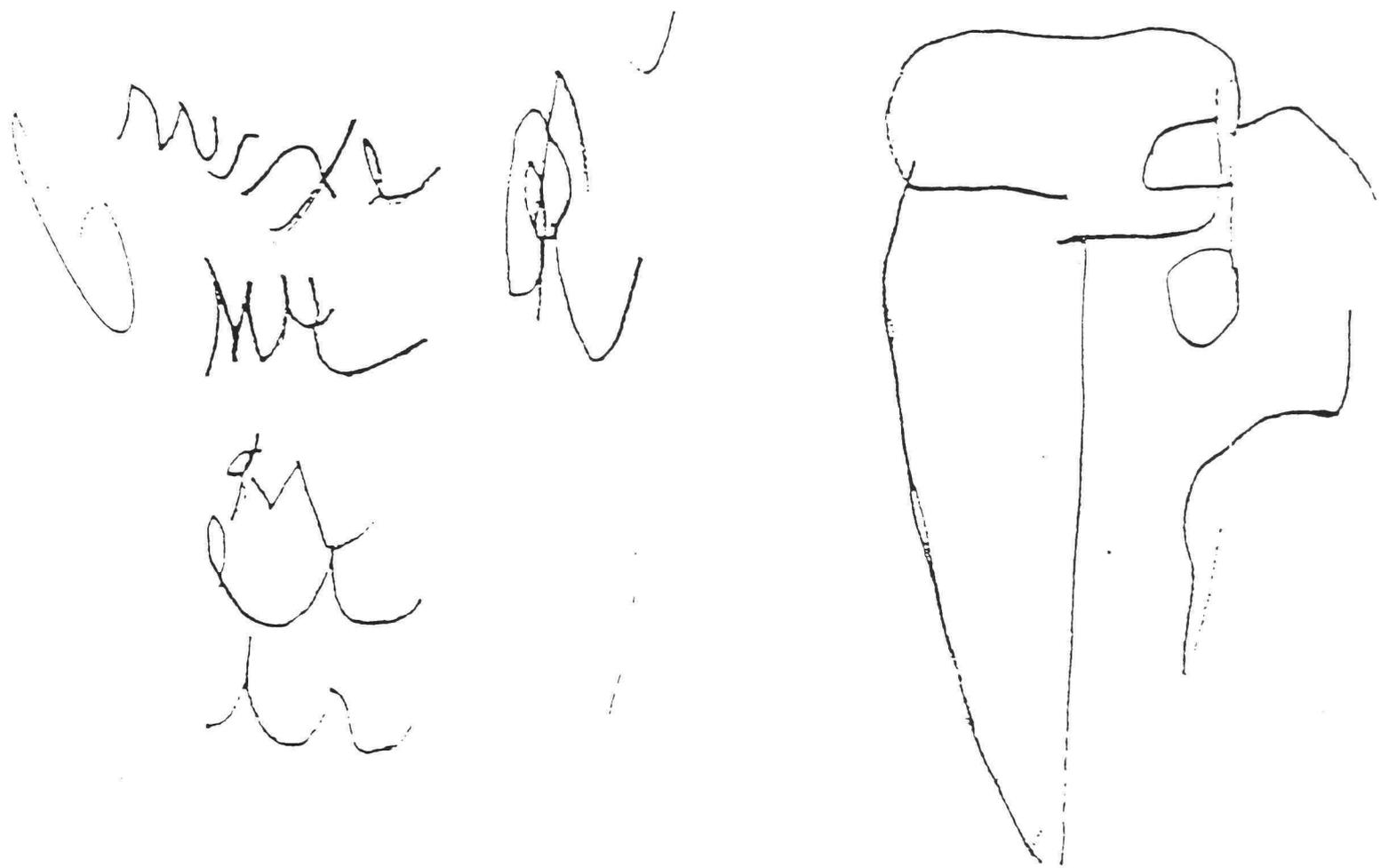


Figure 14: Amy's address and map.

Figure 4.15: Amy's fire report.

Animal Hospital Center. The animal hospital had three parts: a waiting room, receptionist desk, and doctor's office. The animal hospital provided the context for sustained dramatizations that incorporated literacy throughout the play. Amy incorporated literacy into every aspect of her play in the animal hospital. This center was present while we studied animals.

The waiting room consisted of chairs filled with stuffed animals and a book shelf filled with animal books, magazines, and pamphlets. Amy's play in the waiting room generally consisted of time filler activities while she waited for the doctor. For example, Amy went into the waiting room. She got the sign-in clipboard and began to doodle on it. I asked Amy what she was writing. Amy replied, "I'm putting my birdy's name down." I asked her where she wrote her birdy's name (see Figure 4.16). Amy pointed to a "B" and her name written on the sheet. Then she got a bird magazine and began to read it. This play revealed that Amy understood that print could be used to gain entrance and fill time.

The receptionist's desk held a typewriter, adding machine, desk blotter, telephone, message pads, sign-in sheet, medical information sheets, paper of various sizes, pens, and pencils. The receptionist area provided many opportunities for Amy to demonstrate her emerging literacy skills. One morning Amy came to school late and

went to the Animal Hospital. She first sat in the waiting room and flipped through magazines, but then she decided to be the receptionist. She told Katie, who was in the kitchen, to call and make an appointment. Katie pretended to call. Amy answered the phone and put Katie's name on the calendar. She then wrote a note with Katie's name and several mock-letters resembling K's and brought it to Steven (see Figure 4.17).

Amy noticed that Steven was using the dog folder to examine a bird. She took that folder away from him and gave him the bird folder. Amy then began to stick number stickers on a small piece of paper and put it in an envelope. I asked her what she was doing and she replied, "Making Greg his money paper so he knows how much money to pay." She then gave the bill to Greg who pretended to pay it. As the receptionist, Amy was also very sure that each patient put his or her name on the sign-in sheet.

Amy's play as the receptionist revealed her understanding of many functions of print. Amy's use of the appointment book and her insistence that everyone sign-in reveals her understanding that print is used to gain entrance or reserve space. Amy revealed her knowledge that print is used to provide others with information when she wrote a note and handed it to the child playing doctor and when she made another child a

Sign In Sheet

Owner Name	Animal Name	Animal Type
C.K.	/	[scribble]
[scribble]	[scribble]	[scribble]

Figure 4.16: Example of sign-in sheet from Animal Hospital Children's names have been covered to protect their anonymity.

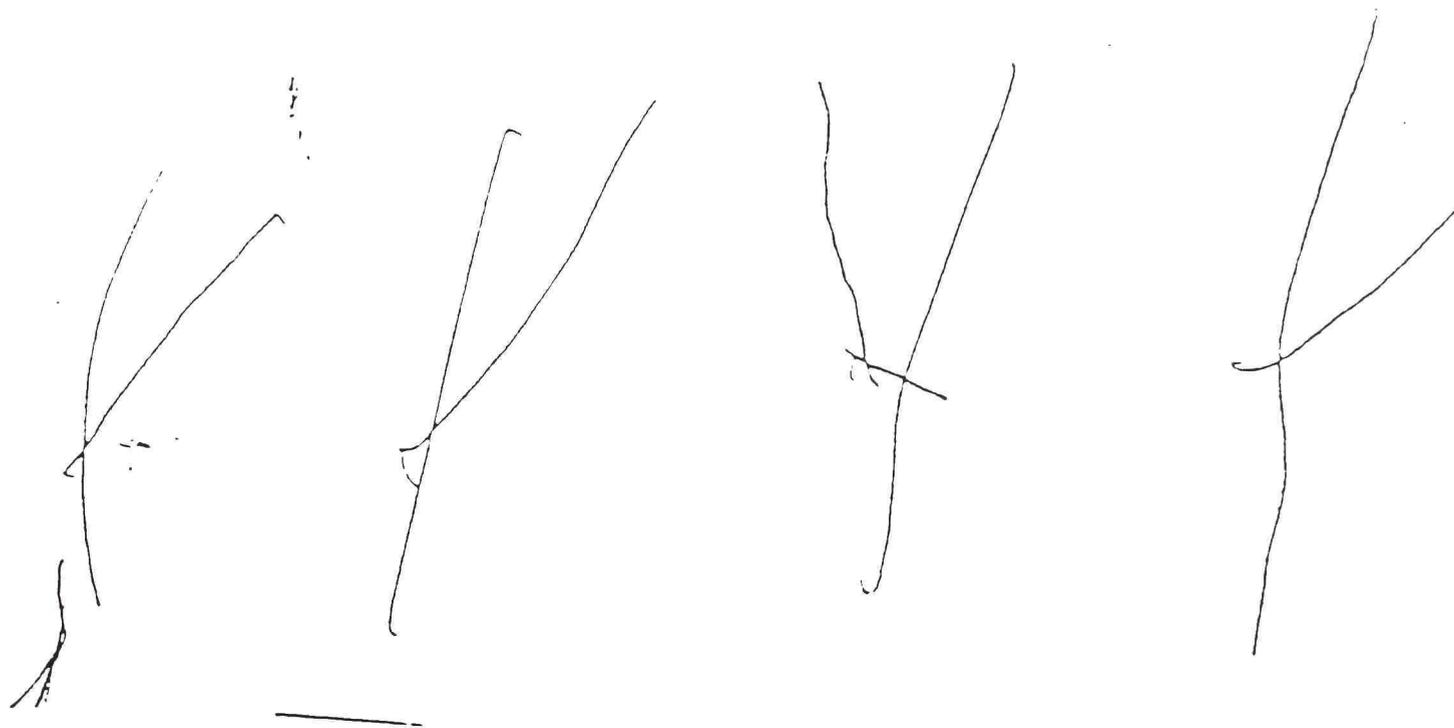


Figure 4.17: Amy's note about Katie's appointment. Katie's real name has been covered to protect her anonymity.

bill. In addition, Amy revealed her knowledge that print is used to organize when she made another child switch folders when she noticed the child was using the wrong folder.

The doctor's office contained a doctor's bag with equipment, a scale, height chart, eye test chart, file folders with information sheets, small pads of paper, pens, and pencils. There were three roles that could be taken inside the doctor's office: doctor, nurse, and patient. As the patient Amy usually gave a very dramatic display. One day Amy ran into the doctor's office area saying her bird was very sick. Steven took the bird from her and began to examine it. Amy pretended to cry. Greg decided its wing was broken. The three children used the doctor tools to "fix the bird." Amy told them that they needed to write things in the folder. Greg took the job of writing. Amy told him to write that the bird was a ten-year-old blue jay. (We frequently sang a song about blue jays.) Steven gave Amy a paper with squiggles that he read as, "Make bird not fly for 15 days and give pink medicine nine times a day." Amy took the bird out. When Amy told Greg he needed to "write things down" she demonstrated that she understood that print is used to record information.

Amy enjoyed playing the role of nurse. One day as the nurse, Amy began to scribble write on a small pad.

She gave the note to Katie who was the doctor. Katie told Amy to write down the dog's blood pressure and temperature. Amy made a quick note in the dog folder (see Figure 4.18). Amy wanted to give the dog an eye test. Greg told her that was silly because dogs cannot talk. Katie said the parrot could do an eye test. Macy entered the scene. She and Greg continued to doctor the dog while Katie and Amy gave the bird an eye test. Katie pointed at letters while Amy pretended to talk for the bird. Amy identified the capital letters A B C D E G H I J O P S T and Z.

In this example Amy revealed a great deal about her literacy knowledge. When Amy gave Katie a scribble note she was demonstrating her knowledge that print is used to provide others with information. When Amy wrote in the dog folder she was demonstrating her knowledge that print is used to organize and record information. While giving the parrot an eye test Amy revealed her knowledge of letter concepts.

The favorite role in the Animal Hospital was that of doctor. Amy seldom played this role because it was a challenge to get this position. She often bid for this position, but other more aggressive children usually won the part. One day Amy and Katie entered the Animal Hospital. No one else was playing. Amy took the role of doctor and Katie was the nurse. Amy got a polar bear

Patient Name: _____

Animal Type: _____

Doctor: _____

Vital Signs:

Height

Weight

Temperature

Blood Pressure

11/12

100

120/80

Diagnosis:

Ear Ache

Stomach Ache

Sore Throat

Runny Nose

Rabies

Broken Leg

Sore Tail

Rash

Cold

Flu

Heart Attack

Having Babies

Diarrhea

Figure 4.18: Check list Amy filled out in Animal Hospital.

folder and gave it to Katie. Amy began to doctor the bear while Katie pretended to make notes. She took the bear's temperature, height, and weight. She then listened to his heart and looked in his ears. Finally, she proclaimed that the bear had a bad ear infection. She got a small pad and scribble wrote. She handed the note to Katie and stated, "Give this to his mommy and tell her to give him ten spoons of pink medicine until he feels better." Amy use of a written note reveals her understanding that print is used to provide other with information.

Travel Agency Center. The travel agency corresponded to our unit on transportation and moving around. The travel agency consisted of a table stocked with office supplies such as a desk blotter, telephone, file folders, paper of various sizes, pens, pencils, message pads, child-size scissors, and tape. Travel books, brochures, old plane tickets, and maps were also available. In addition, this center had a pretend plane made out of a box, suitcases, play clothes, and other travel items. As a concept building activity we mapped out the trip our assistant Ms. Karen went on during this time. She brought many brochures, maps, and an itinerary for us to use. Katie and Amy were also planning on going to Disney Land together the upcoming summer. Their mothers had planned their itinerary.

Amy and Katie were very excited about their upcoming trip. They spent a great deal of time in the travel agency center planning the trip. Amy entered the travel agency where Katie and Molly were playing. She told them they needed to "make a traveling list." Molly decided to leave the center. Katie asked me to play with them. One of the plane tickets had a grid of the seats. Katie asked me what this was and I explained it to her. The girls then decided where each member of their families would sit where. Then they talked about "the coupons they have to eat." (Their mothers had a coupon book provided by their travel agent.) Amy flipped through a travel brochure and pointed at pictures that looked like restaurants. Katie pretended to write the names down. Amy looked for places she recognized but when she could not find any she just pointed at pictures that looked like restaurants and gave them familiar names. At times she would find pictures of food and switch to stating what they would eat instead of where they would eat.

Then the girls decide what they were going to do on each day. Katie was the scribe, but both girls worked to sound out letters. They referred to the days of the week sign we had interactively written, as a class, several times to figure out the first letter of each day. Amy told Katie to put M for Monday. T for Tuesday

etcetera. Both girls sang the days of the week song in order to decide what day comes next. The girls needed help on the letter to use for Thursday. They asked for my assistance and I told them "th"; they did not ask why so I gave no explanation. Then they began to decide where to go. Katie asked me to write the places. I agreed because I wanted to keep the play flow going. The girls said, "On Monday we are going to go to Disneyland. On Tuesday we are going to the beach." I asked Amy to point to where I should write that. She said the word Monday makes the "mmm" sound and told me to write Disneyland by the "mmm". I asked her to point to the "M" for Monday, but she looked at me blankly. Katie quickly points at the "M." Amy was able to show me where to write for Tuesday and Wednesday, but she did not recognize Thursday or Friday.

Amy's trip plan reveals a great deal about her literacy knowledge. The development of an itinerary demonstrates her understanding that print can be used to record information and organize. By referring to other print sources to make the list Amy was demonstrating her understanding that print can be used as a resource for information. Amy's use of picture cues demonstrates her understanding that pictures give hints about the meaning of print. Amy also demonstrated an understanding of letter sound relationships.

M - Disney Land.
T Beach
W - Knots
Island
(Knot's Berry
Farm I think.)
T - Disney Land.
SS Ocean
Zoo
Place

Figure 4.19: Amy and Katie's trip plan.

After making their plan, the girls got two suitcases and began to pack. Then they recruited Molly, Dennis, and Greg to play their brothers and sister. The children pretended to fly and go to the various places and sleep. The travel plans and other papers they packed were never referred to again.

Camp Site Center. This center was added when we began to study nature. The campsite and travel agency were both available at the same time. The children often integrated the play in the two areas. The campsite contained toy campers, toy boats, a small tub of water, a real canteen, a set of camp cookware, a fishing pole, and a toy lantern. The literacy props included paper, pencils, pens, fishing licences, books on fishing. One day Amy and Katie were in the travel agency making a "working and buying list for camping." I questioned Amy about her buying list. She read her list, "food, tent, fire, and climbing boots." (The list only contained scribble writing.) I asked Amy why she needed a list. Her reply was, "So I can buy the things." In further probing she stated that a list "tells you what you need." The girls then packed two suitcases and went to the campsite.

At the campsite I enter the play as a game warden. I asked them if they would be doing some fishing. The girls pretended to fill out a fishing licence

application and I handed them a fishing licence. (Greg had told the class about fishing licences so I added this item to the play center.) The girls played campsite by fishing, pretending to cook, laying on sleeping bags, and talking. They talked for a long time. Then they went to get some travel brochures from the travel agency. They laid back down on the sleeping bags and looked at the brochures. They find a pretty picture of a wooded area with a lake. Amy asked me, "What is this place called?" I told her it was in Wyoming. Amy told Katie, "Let's pretend we are going here." Then Amy and Katie went to talk to Greg, who was in the travel agency. Amy told Greg, "We need a ticket to Wyoming." Greg handed them each a blank index card. The girls then walked around the room pretending to drive to Wyoming. The use of a fishing licence and "ticket to Wyoming" demonstrates Amy's understanding that print is used to gain entrance.

Functions of Print

In my narrative description I described how Amy demonstrated her understanding of the functions of print. Amy demonstrated an understanding of fourteen different functions of print. She demonstrated her understanding that print could be used: (1) to gain instruction; (2) to provide others with information; (3)

to provide a label; (4) to test skills of others; (5) to organize; (6) to identify ownership; (7) to tell a story; (8) to fill time or entertain; (9) as a resource for information; (10) to influence or direct others behavior; (11) to gain entrance or reserve space; (12) to designate money; (13) to convey feelings; (14) to record information. (See Table 4.1 for examples of each code.)

Concepts of Print

In my narrative description I also described how Amy demonstrated her understanding of the concepts of print. Amy demonstrated her understanding of the following concepts: (1) print is made up of separate words; (2) print carries the message not pictures; (3) print has its own type of language; (4) print has directionality and orientation; (5) print holds a permanent message; (6) print has punctuation; (7) print and pictures are related; (8) understanding of letter features. (See Table 4.2 for examples from the data, which describe each code.)

Summary

In chapter IV I presented the findings of my study. First, I described each of the categories and listed the codes. Second, I present several tables that give

examples of how Amy demonstrated her knowledge of each code. Third, I give a fuller narrative description of how Amy incorporated literacy into her play in the literacy enhanced play centers. After each narrative description I explain what these behaviors reveal about Amy's literacy abilities.

CHAPTER V
DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND
RECOMMENDATIONS

Introduction

In Chapter V, I discuss the study's limitations. Then, I discuss the findings of my study, Next I offer conclusions, implications, and recommendations from my study. Finally, I address the study's significance.

Limitations of the Study

This study contains some of the limitations inherent in doing research where young children are the participants (Hatch, 1995). My presence in the setting may have affected how the children incorporated literacy into their play. Children have been culturally programmed to act in a certain way in the presence of adults, and my position as teacher automatically placed me in an authority role. As a result, the children may have tended to modify their natural play behavior due to my presence. This may have affected the naturalness of the play, but it did not seem to adversely affect Amy's literacy demonstrations. The fact that Amy may have used more literacy demonstrations due to my presence in the centers allowed me to learn that much more about her literacy development.

An additional limitation of this study involved the research site. The research site was one pre-kindergarten classroom consisting of eleven children that was a part of a two-day a week Southern Baptist church program in the southwestern United States. This site may restrict the way in which readers who work in a five-day-a-week program with a larger class size can apply the results.

Discussion of Findings

This study demonstrated that a literacy-enhanced play environment provides an excellent resource for examining children's knowledge of the functions and concepts of print. I found that within the context of a well developed literacy-enhanced play environment Amy was able to demonstrate her extensive knowledge of literacy. By carefully observing Amy in the literacy-enhanced play centers, I discovered that Amy had a great deal of knowledge about how print functions in her environment and the many concepts of print.

Amy's Emergent Literacy Demonstrations

Purposes of Literacy Use. In my observations I found that Amy used literacy consistently in her play in many ways for a variety of purposes. She used literacy as she: worked on solitary projects, interacted with

friends, developed items for play, communicated with herself and others, developed play schemes, and extended her knowledge of play topics.

Amy used literacy as she worked on solitary projects. There were times when Amy enjoyed working by herself on a project. These literacy demonstrations were generally shorter in length and involved less complex processes. These activities included reading a book, writing a letter, doing art projects, working literacy-based puzzles, or playing literacy-based games. Some of Amy's favorite literacy-based puzzles included sequencing or alphabet puzzles. Her favorite games were environmental print matching and letter picture matching games. While playing these solitary games, Amy demonstrated her emerging literacy skills.

Amy also used literacy as she interacted with her friends. These literacy demonstrations tended to be longer in length and involved many elaborate literacy demonstrations. As Amy worked with her friends in the literacy-enhanced centers she used literacy for authentic purposes that served to meet personal needs. These demonstrations were both purposeful and situated. The literacy demonstrations served a direct purpose in ongoing self-initiated play schemes. Amy's literacy demonstrations with her friends were also highly interactive and goal-oriented. As the children played,

they collaborated to set up play schemes that incorporated literacy to meet their specific goals or objectives.

Amy used literacy to make items to be used in play. For example, in Chapter IV I described one day when Amy and her friends spent the entire play time playing circus. As a part of this play, Amy and her friends made circus tickets and signs to advertise the circus. Amy made other literacy props as well. She made a pizza menu and birthday cards in the home-living center. She also made drivers' licences for children playing cars. The items Amy generated had authentic purposes related directly to the play.

Amy used literacy in play to communicate with herself and others. Amy used literacy to communicate to herself by using literacy to meet a variety of personal needs. For example, she made inventories of her own knowledge, wrote grocery lists, wrote down food orders, or used print sources to enhance her own knowledge. Amy used literacy to communicate with her friends and meet a variety of her communication goals. For example, Amy used literacy to communicate with others when she wrote letters, shared books, wrote reports, and used literacy sources to influence other people's behavior.

Amy used the literacy props available in the centers to develop play schemes. The literacy props

served to encourage play infused with literacy demonstrations. The block center is a fine example of a setting in which this occurred. Play in the block center tended to be less dramatic in nature and more rough and tumble. With the availability of literacy props, however, Amy and her friends often engaged in behavior involving literacy in the block center. For example, during our unit on building and construction Amy and her friends pretended to be contractors and used literacy skills to make blue prints and write work orders. The literacy props available in the play centers served to provide the resources Amy needed to incorporate literacy into her play in an authentic fashion.

Amy used literacy in play to extend her knowledge of play topics. While developing play schemes and using literacy in play Amy often referred to print sources to gain information on a play topic. For example, while playing in the fire station Amy referred to a book to extend her rescue theme by including a crane. Amy also referred to a cookbook to figure out the ingredients she needed to make a cake. On another occasion Amy examined a book on circuses to gain information for her own circus. The availability of print sources provided a resource Amy used to extend her knowledge of play topics.

Functions of Print. Amy demonstrated her knowledge of the many ways print can be used in the environment. As Amy played, she used the literacy props and other print sources in our classroom to meet many goals and needs. Specifically, Amy demonstrated an understanding of fourteen different functions of print. She demonstrated her understanding that print could be used: (1) to gain instruction, (2) to provide others with information, (3) to provide a label, (4) to test skills of others, (5) to organize, (6) to identify ownership, (7) to tell a story, (8) to fill time or entertain, (9) as a resource for information, (10) to influence or direct others behavior, (11) to gain entrance or reserve space, (12) to designate money, (13) to convey feelings, and (14) to record information.

Concepts of Print. Amy also demonstrated her knowledge of the many concepts of print as she used literacy props and other print sources in the literacy-enhanced play centers. Specifically, Amy demonstrated her understanding of the following eight concepts of print: (1) print is made up of separate words, (2) print carries the message not pictures, (3) print has its own type of language, (4) print has directionality and orientation, (5) print holds a permanent message, (6) print has punctuation, (7) print and pictures are related, (8) understanding of letter features.

Literacy Enhanced Environment

In order for Amy to demonstrate her extensive knowledge of literacy, a literacy-enhanced environment was critical. Building from the extensive research (e.g., Christie, 1990, 1991; Christie & Enz, 1992; Morrow & Rand, 1990; Neuman & Roskos, 1990) that has been done to help teachers develop literacy-enhanced play environments, I set up a play environment that gave Amy the opportunity to use her existing literacy knowledge and extend this knowledge. The research provided me with wonderful advice on how to set up the physical classroom environment. I infused the play centers with literacy props (as suggested by Morrow & Rand, 1990) that provided Amy with an explicit context for literacy-directed play. The design of the play centers was consistent with the literature that describes literacy-enhanced play centers, especially the work of Neuman and Roskos (1990) and Morrow and Rand (1990). (See Chapter III for more information on how I developed the physical classroom environment.)

Research in the area of play has determined that as children experiment with literacy they begin to develop an understanding of the functions and concepts of print (Schickedanz, 1986; Clay, 1975 & 1986). Recognizing that much of this experimenting occurs in play has caused researchers to reconsider the role of play in literacy

development (Christie & Enz, 1992). In my study I found that Amy needed the less structured, authentic setting of play to engage in literacy exploration in the classroom. When Amy first entered my classroom she made no attempt to use her emerging literacy skills during teacher-led projects. It was only after I gave Amy the opportunities to use literacy during play that she began to use her emerging skills.

One clear example of Amy's hesitation to use her emerging literacy skills on teacher-led tasks was her initial refusal to attempt any writing on her artwork. Before I began data collection, while I was still developing the environment, I did not include the art center as one of the play centers. The class did art projects as a whole group, and I offered help and instructions throughout the process. I always encouraged the children to write something about their artwork. Most of the children were hesitant to attempt any writing, but they soon began to write when they realized that all of their efforts would be celebrated. Amy, on the other hand, never made a mark on her art work during this time. She firmly stated that she could not write.

When I set up the art center as one of the literacy-enhanced play centers, Amy began to include writing on her artwork. The basic set-up of the art projects was the same. The children were all asked to go

to the art center during the play period. There was always a suggested art activity that followed the classroom theme we were studying. My assistant or I were usually present at the center to offer instructions or assistance as the children worked. I still encouraged the children to use writing and praised all of their attempts. The only differences between the whole group art projects and the projects in the art center was the fact that a smaller group of children were working on the projects and the projects were being done during our free-play period. Yet, Amy began to enthusiastically use her emerging literacy skills on her art work in the art center. This enthusiasm was also evident in Amy's use of literacy in all the play centers.

Assessing Literacy Skills

To help children develop their emergent literacy skills, a teacher must first assess the children's understandings of the functions and concepts of print. Teale (1990) contends that young children's literacy development begins with an understanding of the functions of print. Vukelich (1992) states that the, "knowledge of print functions is instrumental in encouraging children to learn about the strategies for encoding speech in print, recognizing words, and analysing word structure" (p. 154). Further, the

importance of determining children's understanding of the concepts of print cannot be ignored. Hall (1987) states that a child's background knowledge in the area of literacy directly impacts his or her future success in reading and writing. Clay's (1993) Observation Survey of Early Literacy Achievement can provide one means by which to assess this information, but, as my study demonstrates, some children need a less structured, authentic context to demonstrate more accurately their abilities.

When I compared the knowledge Amy exhibited while she played and the results shown on the Observation Survey of Early Literacy Achievement (OS), I noticed a huge discrepancy. While playing with Amy in the literacy-enhanced play centers I asked Amy many questions about her knowledge of literacy that were very similar to those on the OS. I found that Amy was often able to answer these questions in the play setting, but failed to answer the same questions on the OS.

On the Letter Identification observation task, Amy only reported to know twelve uppercase and six lower case letters (A-B-C-D-H-K-L-O-S-X-Y-Z-c-i-k-o-s-z). While she played, however, Amy was often able to identify and name many more upper case letters. For example, while playing with an upper case letter puzzle in the puzzles and manipulatives center Amy identified

twenty upper case letters (A-B-C-D-E-H-I-K-L-M-N-O-P-R-S-T-U-W-X-Y-Z). On another occasion Amy identified seventeen uppercase letters while pretending to give a parrot an eye test in the Animal Hospital (A-B-C-D-E-G-H-I-J-O-P-S-T-W-X-Y-Z). I have no example of Amy reciting lower case letters, but she used many lower case letters when she copied words from texts, made word strings, and wrote known words.

On the Word Test, Amy made no attempt to read any of the words. The list of words included some words that Amy often read and could pick out while reading favorite books in the reading center. These words included the words "I," "Mother," and "me." While playing Amy also read many other words that held meaning for her. She could read her friends' names. She could read the animal names on posters in the Animal Hospital. She could read the food posters in the Home Living Center. She could read names of objects posted up around the room. Amy also demonstrated the ability to read environmental print while playing environmental print games.

On the Writing Vocabulary portion of the OS Amy made no attempt to write any words beyond her name even after I prompted her to write some known words. In play, Amy often attempted to write words for a variety of purposes, including the words "dog," "mom," and "Katie's name" (pseudonym) which she always spelled correctly.

Amy also refused to make any attempt on the Hearing Sounds in Words portion of the OS. This was in sharp contrast to the many times Amy worked diligently to hear the sounds in words as she wrote stories to accompany her art work or some other authentic purpose. It is interesting to note that one of the words on this OS subtest was "dog" which was a known word for Amy. She wrote the word in the play context several times but refused to make any attempt to write in this more structured format.

In the Concepts of Print portion of the OS, Amy was unable to demonstrate her knowledge of many concepts of print of which she had clearly demonstrated knowledge in play. Amy was unable to demonstrate her knowledge of directionality, orientation, or return sweep on the OS. In play, Amy demonstrated her knowledge of each of these concepts. While Amy read simple stories or pretended to read unknown text, she often pointed at the words demonstrating her knowledge of these concepts. Amy was also unable to point out a letter, word, or a capital letter when she took the OS. When I asked these same questions while we were at play, Amy was able to point out each of these components. Amy also demonstrated her understanding of these concepts in her authentic attempts to write. Clearly Amy was able to more fully demonstrate her emerging abilities while playing in

literacy-enhanced centers that gave her authentic reasons to use reading and writing.

My study demonstrates that play observations offer a clear sense about what children know about literacy. Some children need a less structured, authentic setting in order to demonstrate their literacy skills to the fullest. Through "kidwatching" (Goodman, 1978) in a literacy-enhanced environment the teacher has the opportunity to observe children engaging in literacy demonstrations to meet a variety of authentic purposes. The supportive literacy environment gives the child the opportunity to use their developing language skills in a variety of contexts to meet authentic goals. The teacher then has the opportunity to watch the child explore in this environment in order to learn what he or she knows about language literacy use.

Feasibility of Play Observations

Throughout this study I tried to keep in mind the question of the feasibility of play-based emergent literacy assessment for classroom teachers. I believe that it is feasible for a classroom teacher to employ play-based emergent literacy assessment. Developing and maintaining the literacy-enhanced play centers takes few resources beyond time. Early childhood settings generally have a stock of play items available. Altering

the play setting to include literacy-related materials takes no more than a few changes to the physical layout of the classroom and the addition of literacy props to the play centers. (See appendices.) The development of the dramatic play center takes more ingenuity but is well worth the time.

The greatest resource used in play observations in a literacy-enhanced environment is that of time. A great deal of classroom time must be devoted to play. In addition, the teacher must devote time to developing and maintaining the environment and observing the children or kidwatching. Developing the literacy-enhanced play environment does take a considerable amount of teacher time. It takes time to gather the materials, rearrange the classroom, and set procedures in place. Once the physical environment is in place there is little maintenance if well developed clean-up procedures are in place. The greatest time demand involves observing the children and taking time to play with them and model literacy behaviors. The feasibility of these time demands, however, must be viewed in light of the benefits gained by employing play-based assessment.

Theoretical Framework

In my observations I found Amy was hesitant to use her emerging literacy skills on more structured tasks,

but in play she freely used many emergent literacy skills. The literacy-enhanced play environment provided Amy with a less structured setting in which to practice her emerging literacy skills on authentic tasks. My observations were consistent with Piaget's theory of development. According to Piaget, play provides a non-threatening environment where children enact their emerging cognitive abilities. In play, children exercise and experiment with skills they have not completely mastered, without the constraints of correctness. Both Piaget and Vygotsky believed that it was through play that children develop symbolic, abstract levels of thought. Piaget (1967) considered play to be a time when children exercise their developing cognitive abilities. Vygotsky (1978) viewed play as a transition between concrete thought and full symbolism. A child's first experience with the use of symbols is within the act of play (Piaget, 1962; Vygotsky, 1967). In play, children often use objects to stand for something outside of the immediate context.

The literacy-enhanced play centers in my classroom encouraged Amy to participate in role-defined dramatic play that was infused with literacy. As Amy enacted roles using literacy materials in an interactive manner, she used a great deal of symbolism in her play. Understanding the concept of symbolic representation is

a very important element in the development of literacy skills. To gain a true understanding of the functions and concepts of print, children must be able to manipulate symbols; play provides an excellent forum for this development. The development of symbolic thought through play is an important step in the development of literacy skills.

Conclusions and Implications

I concluded that two aspects of the environment were very important to determining the results of this study. First, I concluded that a risk-free environment must be maintained for children to feel free to explore their emerging literacy abilities without the constraints of correctness. Second, I concluded that an environment must be maintained that provides children with opportunities to explore their emerging literacy skills on authentic tasks. To develop a risk-free and authentic environment, particular aspects of the environment must be considered. These include teacher attitudes, teacher modeling, the context of play, the available props, and concept building activities.

Teacher Attitudes

The risk free environment was an important element that led to the results of this study. In play, Amy

demonstrated her understanding of literacy through authentic uses of literacy in a non-threatening context. Play by its very nature lends itself to a non-threatening climate. Play time generally consists of a time when children can relax and have fun with no performance expectations attached. Adding a teacher, who has specific goals for the play time, does hold the hazard of taking some of the risk-free element out of play. The teacher must consistently monitor his or her own behavior to ensure that he or she maintains a child-centered attitude in the play centers.

When I began this study, I was acutely aware of the risk of altering the child-centered goals of play, therefore, I took conscious steps to assure that the play time remained risk-free and authentic to the child. First, I took the role of a player not a leader. When I entered a child's play I took my play cues from the child, modeling literacy usage when it fit naturally into the child's play scheme. Second, I tried to separate my roles as teacher and player by maintaining a child-like attitude while I played. I did this by avoiding teacher interactions such as disciplining children and providing direct instruction in the play centers. When I did have to take a disciplinary role, I removed myself and the child from the play center before I began the interaction.

Teacher Modeling

While playing in the centers I had the opportunity to provide authentic modeling of social skills and literacy use that served to enhance the risk-free, authentic environment. By modeling social skills, I increased the amount of positive interaction occurring among the children, therefore cultivating the risk-free environment. By modeling literacy usage I provided the children with cues on authentic uses of literacy in their play.

While I played with the children I consciously modeled encouraging statements and attitudes of tolerance, sharing, conflict resolution, and acceptance of others. Through this modeling the children developed positive social interaction patterns that encouraged emergent literacy exploration. The children came to know that their attempts at literacy use would be accepted, admired, and encouraged not only by the teacher but also by their peers. Through this modeling the risk-free environment was cultivated that gave children an opportunity to explore literacy more freely.

While I played with the children I also had the opportunity to authentically model the use of literacy. As I played I interjected literacy demonstrations into the play when they fit naturally into the play scheme the child had developed. This modeling expanded Amy's

knowledge of how the literacy props could be used in play. Amy could then take this knowledge and develop new play schemes in which she authentically used these literacy demonstrations.

Context of Play

The literacy-enhanced play centers provided a context for Amy to engage in role-defined dramatic play, which was infused with authentic literacy demonstrations. The literacy-enhanced play centers were designed to encourage Amy to enact roles using literacy materials in an interactive manner. For example, the basic format of the animal hospital encouraged each child to take on a role and interact with one another to enact a play scheme. This type of role-defined dramatic play encourages increased interactions among the children. These interactions allowed Amy to learn from her peers, which extended her knowledge of literacy and conversely expanded the knowledge of her peers.

Literacy Props

The literacy props in the play centers provided the tools for Amy to use on authentic literacy tasks. These tools both supported the play and acted as resources for Amy. For example, the grocery store advertisements and coupons supported the play by providing literacy items

that could be used while playing. The advertisements and coupons also acted as a resource for Amy to use when making a shopping list. The availability of literacy props gave Amy the opportunity to demonstrate her knowledge of literacy through authentic tasks.

Concept-Building Activities

Throughout the study, our class took part in activities that served to build background information the children used to develop play schemes infused with authentic literacy demonstrations. These activities included taking field trips, interacting with classroom visitors, participating in hands-on class activities, watching videos, and reading selected children's literature related to play topics. For example, during the time when the props in the block center revolved around building and construction we took part in many activities that supported this theme. We took a walk to a construction site. A builder came in to talk about his job. He described the use of blueprints and gave our class some real blueprints. In addition, we used real tools (e.g., hammers, screw drivers, sanders) on a variety of projects during classroom activities. Finally, we watched videos and read books that discussed building and construction. These activities helped build the children's background knowledge about building and

construction, which they needed to incorporate literacy into their play.

Benefits of Play-Based Assessment

By carefully designing a risk-free, literacy-enhanced play environment, a teacher gives children an opportunity to engage in play that is infused with authentic literacy demonstrations. By observing children in this context, a teacher gains a clearer sense of what children know about literacy. The teacher can then use this information to plan instruction based on students' strengths and weaknesses. By employing play-based observations, a teacher can maximize instructional time and better meet the needs of students.

Classroom Recommendations

The use of play centers and other unstructured times for children to engage in literacy activities in their own way is becoming scarce in many early childhood classrooms. Authentic, meaning-driven activities need to be put back into all classrooms where children are on the road to learning how to read and write. This study has demonstrated the many advantages of incorporating play in literacy-enhanced environment into a class schedule. Classrooms that focus on direct instruction and reading only for the sake of learning to read may

produce children who are able to read and write but do not. Amy is a prime example of this type of child. When Amy started preschool, she possessed many emergent literacy skills, but she did not use these skills until she was presented with a meaningful context.

I have developed four recommendations from the my study. First, early childhood teachers should include time for unstructured play in literacy-enhanced play centers in their daily schedule. Play in literacy-enhanced environments gives children the opportunity to interact with one another using their emerging literacy abilities in a risk-free setting. Literacy-enhanced play centers give children an opportunity to use literacy in an interactive fashion that encourages children to act as more knowledgeable others for one another. Play in literacy-enhanced centers provides an excellent time for children to explore literacy because they do not feel any constraints for correctness. Literacy-enhanced play centers also provide meaningful contexts for the children to use literacy for their own purposes.

Second, concept building activities that enhance children's knowledge of authentic literacy usage should be built into the early childhood curriculum. The activities should include taking field trips, interacting with classroom visitors, participating in hands-on activities, watching informational videos, and

reading a wide variety of children's literature related to play topics. These activities serve to build background information the children can then use in play.

Third, early childhood teachers should use play observations as an assessment device to determine children's knowledge of the functions and concepts of print. Play observations provide a clearer sense of what children really know about the functions and concepts of print. Play is an excellent setting for emergent literacy assessment because the risk-free nature of play gives children a time to explore literacy without the constraints of correctness. Some children will be able to demonstrate more about their knowledge of literacy when they are presented with authentic reasons to use literacy for their own objectives. Information gathered from play observations provides an excellent tool for planning instruction, because it informs the teacher of the types of emergent literacy concepts with which the children are currently experimenting.

Fourth, early childhood teachers should take an active role in the play, using modeling to demonstrate authentic uses of literacy and desired social behavior. Through modeling teachers can demonstrate the various functions and concepts of print. Play offers a wonderful opportunity for teachers to advance children's literacy

development by providing meaningful demonstrations of emerging literacy skills. Teachers also have the opportunity to model desired social behavior. By modeling social behaviors teachers have the opportunity to shape the classroom environment.

Recommendation for Future Research

Additional naturalistic studies are needed to further examine the use of play observations for emergent literacy assessment in regular classroom settings. Researchers need to determine the usefulness of play observations for literacy assessment in kindergarten and first grade classrooms.

In addition to the results reported in Chapter IV, I also observed some interesting differences in my students' social interactions compared to the students in the other classroom. Through my observations and comments made by my assistant, I noticed that the children in my classroom seemed to work together better in their play than the children in the other preschool classroom. The children in my classroom tended to be more inclined to work together towards a common goal. They were also much more inclusive in their play by including all interested players and shared play items equitably. In addition, they seemed to possess more well-developed conflict resolution skills and a greater

empathy for each other's feelings. Many variables could have contributed to these social behaviors, but it would be interesting to examine what effects teacher modeling during play has on the social atmosphere of a class.

Significance of Study

Practice

Researchers have discovered that as children experiment with reading and writing they develop an understanding of the concepts and features of print (Clay, 1975, 1986; Schickedanz, 1986). My study describes how one teacher developed an environment that encouraged literacy exploration in the classroom. This study offers implications for practitioners about the importance of including literacy-enhanced play centers and time for play in classrooms.

The importance of determining a child's understanding of the functions and concepts of print cannot be ignored (Clay, 1975; Hall 1987; Teale, 1990). This study describes how play observations are a useful resource for assessing a child's knowledge of the functions and concepts of print. This study further describes how some children more clearly demonstrate their emerging literacy abilities in less-structured, authentic settings than on more structured literacy assessments.

Methods

As the classroom teacher in this study, I had the opportunity to act as both researcher and teacher. In Chapter III I describe how I dealt with ethical questions concerning my dual roles and how I balanced these roles. This description provides information for other teacher-researchers who wish to conduct research in their classrooms.

Research

In my review of the existing literature, the need for additional studies on the use of play observations for emergent literacy assessment became apparent. Vukelich (1992) states that many studies have investigated children's graphic and phonemic awareness in writing and reading but far fewer have explored children's understandings of the functions of print. Vukelich (1992) conducted a study that explored one child's understanding of the functions of print. She called for further qualitative research that examines pre-literate children's understanding of the functions of print in order to come to a fuller understanding of children's development. My study addresses this call. I also expanded on Vukelich's work by demonstrating how this setting can be used to assess children's knowledge of the concepts of print.

Summary

In Chapter V, I described the limitations of my study. Then, I discussed the findings of my study, Next I offered, conclusions, implications, and recommendations from my study. Finally, I addressed the study's significance.

REFERENCES

- Applebee, N.A., & Langer, J.A. (1983). Instructional scaffolding: Reading and writing as natural language activities. Language Arts, 60, 168-175.
- Bergen, D. (1988). Play as a medium for learning and development. Portsmouth, NH: Heinemann.
- Bissex, B. (1980). A child learns to write and read. Cambridge: Harvard University Press.
- Bogdan, R., & Biklen, S. (1992). Qualitative research for education: An introduction to theory and methods. (2nd ed.) Boston: Allyn and Bacon.
- Bryan, J.K. (1995). Kindergarten children's uses of oral language and social interaction in literacy activities during unstructured play: A qualitative study. Unpublished doctoral dissertation, Texas Tech University, Lubbock.
- Cairney, T. & Langbien, S. (1989). Building communities of readers and writers. The Reading Teacher, 42, 560-567.
- Christie, J.F. (1982). Sociodramatic play training. Young Children, 37(4), 25-32.
- Christie, J.F. (1983). The effects of play tutoring. Journal of Educational Research, 76, 326-330.
- Christie, J.F. (1991). Play and early literacy development. Albany, NY: State of University of New York Press.
- Christie, J.F., & Enz, B. (1992). The effects of literacy play interventions on preschooler's play patterns and literacy development. Early Education and Development, 9, 205-220.
- Christie, J.F. & Johnson E.P. (1989). The constraints of setting on children's play. Play and Culture, 2, 317-327.
- Clay, M. (1975). What did I write? Portsmouth, NH :Heinemann Educational Books.

- Clay, M. (1977). Exploring with a pencil. Theory Into Practice, 15(5), 334-341.
- Clay, M. (1979). Constructive Practices: Talking, Reading, writing, art, and crafts. Reading Teacher, 39(8), 764-770.
- Clay, M. (1979). Reading: The patterning of complex behavior. Auckland, NZ: Heinemann Educational Books.
- Clay, M.M. (1991). Becoming literate: The construction of inner control. Auckland, NZ: Heinemann.
- Cox, A., Dresden, J., Galda, L., & Pellegrini, A. D. (1991). A longitudinal study of the predictive relations among symbolic play, linguistic verbs, and early literacy. Research in the Teaching of English, 25, 219-233.
- Frost, J.L. & Sunderlin, S. (1985). When children play. Wheaton, Md: Association for Childhood education International.
- Galda, L., & Pellegrini, A.D. (1985). Play, language and stories: The development of children's literate behavior. Norwood, NJ: Ablex.
- Gehlbach, R.D. (1991). Play, Piaget, and creativity: The promise of design. The Journal of Creative Behavior, 25, 137-144.
- Glesne, C., & Peshkin, A. (1992). Becoming qualitative researchers: An introduction. White Plains, NY: Longman.
- Goelman, A. Oberg, & F. Smith (1987). Awaking to literacy. (pp. 161-175). Norwood, NJ: Ablex.
- Goodman, Y. (1978). Kidwatching: An alternative to testing. National Elementary Principal, 57(4), 41-45.
- Goodman, Y. (1984). The development of initial literacy. In H. Goelman, A. Oberg, & F. Smith (Eds.), Awaking to literacy. (pp. 161-175). Norwood, NJ: Ablex.
- Goodman, Y. (1985). Kidwatching: Observing children in the classroom. In A. Jagger & M. Trika Smith-Burke (Eds.), Observing the language learner, (pp. 9-18). Newark, DE: International Reading Association.

- Gordon, D.E. (1993). The inhibition of pretend play and implications for development. Human Development, 36, 215-234.
- Hall, N. (1987). The emergence of literacy. Portsmouth, NH: Heinemann.
- Hatch, J.A. (1995). Qualitative research in early childhood settings. Westport, CT: Praeger.
- Jacobs, L.B. (1991). The authority of childhood. Teaching K-8, 29, 110-113.
- Johnson, J.E., Christie, J.F., & Yawkey, T.D. (1987). Play and early childhood development. Glenview, IL: Scott, Foresman.
- Kantor, R., Miller, S., & Fernie, D. (1992). Diverse paths to literacy in in a preschool classroom. Reading Research Quarterly, 27, 185-201.
- Lincoln, Y., & Guba, E. (1985). Naturalistic inquiry. London: Sage.
- Moffett, J. & Wagner, B.J. (1993). What works is play. Language Arts, 70, 32-36.
- Morrow, L.M. (1989). Literacy development in the early years: Helping children read and write. Englewood Cliffs, NJ: Prentice Hall.
- Morrow, L.M. (1990). Preparing the classroom environment to promote literacy during play. Early Childhood Research Quarterly, 5, 537-554.
- Morrow, L.M. & Rand, M.K. (1991). Promoting literacy during play by designing early childhood classroom environments. The Reading Teacher, 44, 396-402.
- Morrow, L.M., & Smith (1990). Assessment for instruction in early literacy. Englewood Cliffs, NJ: Prentice Hall.
- Neuman, S.B. & Roskos, K. (1990). Play, print, and purpose: Enriching the play environment for literacy development. The Reading Teacher, 44, 214-221.
- Neuman, S.B. & Roskos, K. (1991). Peers as literacy informants. Early Childhood Research Quarterly, 6, 233-248.

- Neuman, K.R. & Roskos, K. (1992). Literacy objects and cultural tools: Effects on children's literacy behaviors in play. Reading Research Quarterly, 27, 203-225.
- Neuman, K.R. & Roskos, K. (1993). Descriptive observations of adults' facilitation of literacy in young children's play. Early Childhood Research Quarterly, 8, 77-97.
- Nicolopoulou, A. (1993). Play, cognitive development, and the social world: Piaget, Vygotsky, and beyond. Human Development, 36, 1-23.
- Pappas, C.C. & Brown, E. (1987). Learning to read by reading: Learning how to extend the functional potential of language. Research in the Teaching of English, 21, 160-177.
- Perrone, V. (1991). Position paper on standardized testing. Childhood Education, 67, 132-142.
- Piaget, J. (1962). Play, dreams, and imitation in childhood. New York: Norton.
- Roskos, K. (1990). Literacy at work in play. The Reading Teacher, 41, 562-567.
- Roskos, K. (1990). A taxonomic view of pretend play activity among preschoolers. Early Childhood Research Quarterly, 5, 495-512.
- Rowe, D.W. (1989). Author audience interaction in the preschool: The role of social interaction in literacy learning. Journal of Reading Behavior, 21, 311-349.
- Schickedanz, J.A. (1986). More than ABC's: The early stages of reading and writing. Washington: NAEYC.
- Schickedanz, J.A. (1990). Adam's righting revolutions: One child's literacy development from infancy through grade one. Portsmouth, NH: Heinemann.
- Schrader, C.T. (1990). Symbolic play a curricular tool for early literacy development. Early Childhood Research Quarterly, 5, 79-103.
- Schrader, C.T. (1990). Written language use within the context of young children's symbolic play. Early Childhood Research Quarterly, 4, 225-244.

- Sinclair, A. Jarvella, R.J., & Levelt, W.J.M. (1983). The Children's Concept of Language. New York: Springer-Verlag.
- Sirotnik, K.A. (1991). Critical inquiry: A paradigm for praxis. In E.C. Short (Eds.), Forms of curriculum inquiry. (pp. 243-258). Albany, NY: SUNY Press.
- Teale, W. & Sulzby, E. (1986). Emergent literacy. Norwood, NJ: Ablex
- Teale, W. (1987). Emergent literacy: Reading and writing developed in early childhood. In J.E. Readence, R.S. Baldwin, J.P. Konopak, & H. Newton (Eds.), Research in literacy: Merging perspectives thirty-sixth yearbook of the National Reading Conference (pp. 45-74). National Reading Conference.
- Vukelich, C. (1991). Materials and modeling: Promoting literacy during play. In J.F. Christie (Ed.), Play and early literacy development (pp. 215-232). Albany, NY: State University of New York Press.
- Vukelich, C. (1994). Effects of play interventions on young children's reading of environmental print. Early Childhood Research Quarterly, 9, 153-170.
- Vygotsky, L.S. (1967). Play and its role in the mental development of the child. Soviet Psychology, 5, 6-18.
- Vygotsky, L.S. (1978). Mind in society. Cambridge: Harvard University Press.
- Woodard, C. (1984). Guidelines for facilitating sociodramatic play. Childhood Education, 60, 172-177.

APPENDIX A
BASIC LITERACY PROPS IN ALL CENTERS

Theme related books

Theme related posters

Labeled storage containers

Paper (various sizes and types)

Note pads (various sizes and types)

Pencils, pens, markers (various colors)

Index cards (various sizes and types)

Post-it-notes (various sizes and types)

APPENDIX B
LITERACY PROPS IN HOME LIVING CENTER

Familiar books

Cookbooks

Envelopes

Recipe cards

Magazines

Telephone book

Calendar

Food coupons

Labeled place mats

Menus

Order pads

Tax Forms

Play money

Check books

Business cards

Old utility bills

Store advertisements

Grocery packages

Baby powder container

Baby wipes container

Letter stationary

APPENDIX C

LITERACY PROPS IN MANIPULATIVES CENTER

Pipe cleaners

Play dough

ABC puzzles

Number puzzles

ABC games

Number games

Instructions

Magnadoodle

Etcha sketch

Dry erases boards

Magnetic ABC's

ABC tiles

Word cards

Simple word books

Environmental print games

APPENDIX D
LITERACY PROPS IN BLOCK CENTER

Tool magazines

Car magazines

Car repair manuals

Home improvement books

Tool catalogs

Hardware store ads

House plans

Blueprints

Invoices

Work orders

Adding machine tape

Masking tape

Scissors

APPENDIX E
LITERACY PROPS IN ART CENTER

Word card box

Picture Dictionary

Letter stencils

ABC desk strips on table

Pictured instruction sheets

APPENDIX F
LITERACY PROPS IN OFFICE CENTER

Desk blotter
Calendar
Desk calendar
Appointment book
Message pad
File folders
Business cards
Forms
Ledger book
Type writer
Adding machine
Telephone
In/out basket
Paper clips
Tape
Ruler

APPENDIX G

LITERACY PROPS IN ANIMAL HOSPITAL CENTER

Office items

Sign in sheet

Medical forms

Telephone book

Appointment book

Calendar

Animal magazines

Animal pamphlets

Appointment cards

Checkbooks

Play money

Bandage containers

Prescription pads

File folders

ABC eye chart

Insurance forms

APPENDIX H

LITERACY PROPS IN FIRE STATION CENTER

Spiral notebooks

Maps

Calendar

First aid posters

First aid kit

Telephone

Telephone book

Ruler

APPENDIX I
LITERACY PROPS IN CAMP SITE CENTER

Fishing licence

Application

Maps

Post cards

Notebooks

Stationary

Camping magazines

Fishing magazines

Travel brochures

APPENDIX J

LITERACY PROPS IN TRAVEL AGENCY CENTER

Office items

Calendar

Daily planner

Air plane tickets

Travel brochures

Pamphlets

Maps

Telephone book

Travel Coupon Books

PERMISSION TO COPY

In presenting this thesis in partial fulfillment of the requirements for a master's degree at Texas Tech University or Texas Tech University Health Sciences Center, I agree that the Library and my major department shall make it freely available for research purposes. Permission to copy this thesis for scholarly purposes may be granted by the Director of the Library or my major professor. It is understood that any copying or publication of this thesis for financial gain shall not be allowed without my further written permission and that any user may be liable for copyright infringement.

Agree (Permission is granted.)

Michelle Baker
Student's Signature

11/15/98
Date

Disagree (Permission is not granted.)

Student's Signature

Date