

THE USE OF POPULAR CULTURE ENVIRONMENTAL PRINT TO INCREASE
THE EMERGENT LITERACY SKILLS OF PREKINDERGARTEN CHILDREN IN
ONE HIGH-POVERTY URBAN SCHOOL DISTRICT

A Dissertation

by

DEBBIE VERA

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2007

Major Subject: Curriculum and Instruction

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Approved by:

Co-Chairs of Committee,	Norvella Carter Stephanie Knight
Committee Members,	Patricia Larke Diane Kaplan
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ABSTRACT

The Use of Popular Culture Environmental Print to Increase the Emergent Literacy Skills of Prekindergarten Children in One High-Poverty School District. (May 2007)

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Limited studies have focused on using popular culture environmental print in the literacy curriculum to teach early literacy skills to prekindergarten students. This study examined whether using popular culture environmental print to explicitly teach alphabet knowledge and print concepts increased the achievement of these skills. After a nine-week intervention was implemented, data were collected from 56 urban prekindergarten children in a control and experimental group.

The use of popular culture environmental print appeared to increase the achievement of print concepts and alphabet knowledge in prekindergarten children from one urban high-poverty school district. Data revealed an increase in the mean rank of the experimental group on the post-test of alphabet knowledge. Additionally, English as a second language learners expanded their knowledge of alphabet letters after the popular culture environmental print intervention. Also, a statistically significant difference appeared to exist between the control and experimental groups' means on the knowledge of print concepts. Descriptive statistics revealed increases in print concept means of the control and experimental groups from the time of the pre-test to the post-test as tested by the Preschool Word and Print Awareness Assessment (PWPA).

A statistical significant difference between the groups the children were in and the early literacy skills of alphabet knowledge and print concepts were determined at the end of the popular culture environmental print intervention. The increase in print concepts and alphabet knowledge appeared to be due to utilizing popular culture characters children observed at home. The popular culture characters garnered the attention of the children and became a source of motivation for increasing emergent literacy skills. Also, through explicit teaching of print concepts and alphabet knowledge with the popular culture environmental print, the children expanded their knowledge of these emergent literacy skills.

DEDICATION

To my dad

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CHAPTER I

INTRODUCTION

Reading has been a vital component for students to achieve academic success (Morrow, 2000). Yet according to a study by the National Association of Educational Progress (NAEP), 32 percent of children in the fourth grade scored below grade level in reading (United States Department of Education [USDOE], 2001a). Furthermore, young children from high-poverty homes scored five to seven points below the national average on emergent literacy skills when they entered kindergarten (Denton & West, 2002). To develop reading skills by third grade, instruction should start early (Halle, T. , Calkins, J., Berry, D. , Johnson, R. , & Child Trends, 2003; Morrow, 2000).

Emergent literacy skills for prekindergarten children have been identified as alphabet recognition, print awareness, phonemic awareness and oral language (International Reading Association [IRA] & National Association of Early Childhood [NAEYC], 1998; Kuby, 1999; Neuman, 2000, 2004; Scanlon & Vellutino, 1996; Schuele, Bourdreau, Justice, Kaderavek, & Ukrainetz, 2004; Smith, 1997; Snow, Burns, & Griffin, 1998). For a strong foundation of emergent literacy skills to develop, interventions for prekindergarten children should have occurred prior to their entering kindergarten (Halle et al., 2003; Strickland & Schickendanz, 2004).

Constructs of alphabet knowledge and print concepts have been identified as significant for young children in developing literacy (Adams, 1996; Kuby, 1999; Kuby

& Aldridge, 1997; Kuby, Aldridge, & Snyder, 1994; Neuman & Roskos, 1993; Smith, 1997; Snow et al., 1998). Alphabet knowledge has been acquired through story book reading and explicit teaching of alphabet letters (Justice & Ezell, 2000). In a longitudinal study, Smith (1997) noted that the better readers in third grade had been familiar with alphabet letters when they were four years old.

Additionally, Smith (1997) noted that the same prekindergarteners that were familiar with letters could read environmental print. Environmental print has been used to read print found in the community (Purcell-Gates, 1996; Taylor & Dorsey-Gaines, 1988). Environmental print studies have focused on the ability of the child to read print in and out of context (Neuman, 2000; Neuman & Roskos, 1993; Roskos & Christie, 2001; Vukelich, 1994). According to Goodman (1986), environmental print includes print found in the home, on food packages, in restaurants, on logos and on signs. The interventions using environmental print have focused on developing concepts of print through direct and indirect instruction (Kuby, 1999; Kuby et al., 1994; Neuman & Roskos, 1993; Vukelich, 1994).

With an increase in media availability in the twenty-first century, (Gentile & Walsh, 2002; Rideout, Vandewater, & Wartella, 2003; Woodward & Gridina, 2000), popular culture print from television and video programs has emerged as an extension of traditional environmental print. This new form of environmental print, popular culture environmental print (PCEP) has appeared on clothing, food, toys, posters and games found in the home (Marsh, 2003a, 2003c, 2004). However, the use of PCEP in the

schools for developing emergent literacy skills has been limited (Dyson, 1999; Marsh & Thompson, 2001).

Socio-cultural Theory

Vygotsky's socio-cultural theory explained that children acquired knowledge through their culture (1978). Further, he stated that "every function in the child's cultural development appears twice: first on the social level, and later, on the individual level; first, between people (inter-psychological) and then within the child (intra-psychological)" (p. 57). Vygotsky explained that children acquired new knowledge through communicating with others (1978). Language then became the primary tool for the child to solve future problems. Vygotsky (1978) stated that "all the higher functions originate as relationships between individuals" (p. 57).

Another component of Vygotsky's sociocultural theory was the requirement of social interaction (Vygotsky, 1978). Social interaction involved learning through communication and working with peers. This process occurred through interplay of the child with a more capable peer or an adult. Through a collaboration between the adult and child, the more experienced participant transmitted knowledge of the child's culture to increase his or her understanding. Vygotsky posited that the potential for cognitive development depends upon the Zone of Proximal Development (ZPD) (1978).

Vygotsky defined the ZPD as the difference between the two levels of learning; the actual and potential levels (1978). The actual or independent level included activities the child could accomplish alone, and the potential level included learning more challenging concepts while being guided by an adult or capable peer. Vygotsky

(1987) explained that learning challenging concepts were assisted through adult interaction involving “demonstration, leading question and by introducing elements of the task’s solution” (p. 209). Vygotsky hypothesized that as the child accomplished these tasks; new knowledge became internalized within the child’s cognition or became part of the child’s independent learning level (Vygotsky, 1978).

This adult interaction with the child occurred through the use of language. Vygotsky believed that thought and language coexisted and through that existence learning occurred (1978). One method for incorporating language was through scaffolding. Scaffolding was the process used by the adult to guide the child’s learning within the ZPD by altering the level of adult assistance according to the identified need of the child. This process provided the framework to elevate the child to a higher independent level of knowledge (1978).

Situated Learning Theory

The situated learning theory states that the acquisition of knowledge is dependent on the activity or context of the learning (Lave & Wenger, 1991). The experiences and the context of those experiences became the basis of the knowledge a learner brought to the learning experience.

Lave and Wenger (1991) discussed how informal life experiences of the learner’s sociocultural world teach the learner a myriad of skills through the situated learning theory. Learning occurred naturally through activities, contexts and cultures. New information was presented in an authentic context. Situated learning theory utilized the

knowledge from the learners' experience to understand the new information presented (Lave & Wenger, 1991).

Community of Practice

Social relations are a critical component of the situated learning theory. Lave and Wenger (1991) explained that social interaction occurs within a community of practice. Within this community, certain beliefs, rules or behaviors are acquired. Within the learning circle, the expert was centered in the middle, while the beginner was situated on the outside when learning a new skill. As more of the community knowledge became a part of the beginner's cognition, the beginner moved toward the center of the learning circle closer to the expert. As the beginner gained more information, he or she took the place of the expert. Lave and Wenger described this learning process as unintentional (1991).

Cognitive Apprenticeship

Brown, Collins & Duguid (1989) developed the concept of cognitive apprenticeship which aligned with the theory of situated learning (Brown, Collins, & Duguid, 1989). In cognitive apprenticeship, the learner was supported with "cognitive tools in an authentic domain activity" (Brown et al., 1989, p. 39). The development of these tools occur through a realistic activity that evolves into a "culture of practice" (Brown et al., p. 39) that is relevant and contextual to the learner (Brown et al., 1989).

In the beginning of the learning, teachers supported scholarship through explicit teaching, modeling or activities that reflected an intended result (Brown et al., 1989). Scaffolding was arranged for students to attempt their new learning under the

observation of a supportive environment (1989). The teacher modeled and coached the students through the new task (1989). As students proceeded through this phase, they learned from each other through social interaction (1989). As the teachers' support faded, the children applied their learning of the new skill (1989). Through this process, the learners' cognitive skills and their motivation for independent learning are enhanced.

Guided Participation

Rogoff (1990) used the term "guided participation" to describe the role of the adult in the learning process. Guided participation was defined as the process in which caregivers and children collaboratively interact within the guided interaction. The caregiver provides the support for learning to occur using the tools of the child's culture (Rogoff, 1990). Rogoff gave an example of a toddler crying and pointing to the floor under an ironing board. The mother asked the child what was wrong and looked where the child pointed. The mother saw a favorite book of the child, gave it to the child and the child stopped crying. Rogoff described this process as "building bridges between what children know and the new information to be learned" (Rogoff, 1990, p. 8). These experiences occurred through various learning situations that were determined by both caregivers and children collaboratively (Rogoff, 1990). This process was also explained by Vygotsky as the social cultural theory (Vygotsky, 1978).

Adults jointly participated in the task to providing focus and motivation for the child (Rogoff, 1990). Utilizing this process, the task became more manageable for the child in learning new skills. Adults then evaluated the child's skill level to determine whether the child could proceed independently with part or completing the whole task

without risk of failure. Rogoff (1990) explained that too much guidance could inhibit the problem-solving process. Rather, Rogoff (1990) posited that when children proceeded without guidance, they learned from their mistakes.

Statement of the Problem

Studies have identified the use of environmental print in prekindergarten classrooms for developing emergent literacy skills of print awareness and motivation to read (Kuby, 1999; Neuman & Roskos, 1993; Smith, 1997; Vukelich, 1994). Past environmental print research focused on signs, logos of businesses and food containers (Adams, 1996; Goodman, 1986; Kuby, 1999; Kuby & Aldridge, 1997; Kuby et al., 1994). Previous studies also described how environmental print was being read in and out of context (Neuman & Roskos, 1993; Vukelich, 1994) to increase awareness that the spoken word corresponds to the printed word.

Within the past ten years, media usage in the home has increased (Gentile & Walsh, 2002; Rideout et al., 2003; Woodward & Gridina, 2000). The use of popular culture from the media has been utilized in the classroom to motivate the development of early literacy skills (Dyson, 2001, 2003a; Marsh, 2003a, 2004; Marsh & Thompson, 2001). Yet, popular culture print has experienced limited utilization as environmental print to explicitly teach emergent literacy skills in the early childhood classroom.

Statement of the Purpose

No Child Left Behind (NCLB) (USDOE, 2001a) focused attention on developing emergent literacy skills (United States Department of Education [USDOE], 2001a). The pre-literacy skills of alphabet recognition and print concepts have been identified as pre-

cursors for future reading achievement (Halle et al., 2003; Morrow, 2000; Smith, 1997; Snow et al., 1998). Further, environmental print has been utilized for teaching emergent literacy skills (Justice, & Ezell, 2000; Morrow, 2000; Neuman, 2004).

One form of environmental print identified as significant in the homes of the twenty-first century children has been print related to popular culture television and video characters (Dyson, 1999, 2001, 2003a; Gee, 2003; Kenner, 2000; Makin, Hayden, & Jones-Diaz, 2000; Marsh, 1999b, 2003a, 2003b, 2003c, 2004; Marsh & Millard, 2001; Marshall, 1997; Melton, 2001; Morrell & Duncan-Andrade, 2002; Orellana, 1994; Rodriguez, 1999).

The purpose of this study was to investigate whether explicit teaching of popular culture environmental print [PCEP] in the prekindergarten curriculum increased the literacy achievement levels of prekindergarten children. Specifically, this study examined whether a statistically significant difference in the alphabet knowledge and print awareness scores of high-poverty prekindergarten children existed when PCEP was purposefully incorporated into the prekindergarten curriculum in an urban district.

Significance of the Study

This study expanded the existing knowledge of the utilization of PCEP to increase emergent literacy scores of prekindergarten children. However, previous environmental print studies have been limited to using business logos, food packages and street signs to enhance print awareness skills in prekindergarten children (Goodman, 1986; Kuby, 1999; Kuby & Aldridge, 1997). Further, environmental print studies have also identified the importance of adult interaction with a child when reading environmental print in

context (Kuby & Aldridge, 1997; Neuman, 2004; Neuman & Roskos, 1993; Vukelich, 1994). With the increase of media usage in the homes (Gentile & Walsh, 2002; Rideout et al., 2003; Woodward & Gridina, 2000), the amount of PCEP has also increased in the home (Marsh, 2003b; Marsh & Thompson, 2001). However, limited studies have focused on PCEP.

Therefore, this study expands the knowledge of an accepted literacy practice of incorporating environmental print into the instruction of the prekindergarten classroom to include knowledge about PCEP. Through this study, information about the utilization of PCEP provides educators a possible intervention to assist young children in acquiring alphabet knowledge and print concepts.

Research Questions

1. Is there a statistically significant difference in the increase of the alphabet knowledge of prekindergarten children at high-poverty urban schools when popular culture environmental print is incorporated purposely within instruction?
2. Is there a statistically significant difference in print concepts of prekindergarten children in high-poverty urban schools when popular culture environmental print is incorporated purposely within instruction?

Definitions of Terms

1. Adult intervention - the teacher or instructional aide assisting in literacy-related play that was used to stimulate literacy skills (Vygotsky, 1978).
2. Alphabet knowledge – alphabetic letter or letters identified by the student (Adams, 1996).

3. Print concepts - literacy skills including the constructs of understanding that meaning comes from print, where one begins reading, left to right progression, return sweep, identification of a letter and a word.
4. Emergent literacy – Early knowledge and skills of phonemic awareness, alphabet letters, print concepts and early writing that precede conventional reading and writing (Teale & Sulzby, 1986).
5. Environmental print - text found in the home and community that includes religious materials, recipes, newspapers, cards, magazines, mail, signs, logos of businesses, food and household items (Goodman, 1986).
6. Literacy-related play – games or educational manipulatives placed in a learning center to stimulate reading, writing and speaking (Neuman & Roskos, 1993; Vukelich, 1994).
7. Media - television programs, videos, video games, computer games and websites (Gentile & Walsh, 2002; Rideout et al., 2003; Woodward & Gridina, 2000).
8. Popular culture environmental print (PCEP) - print from popular culture singers, cartoon characters, actors or animated characters from television programs, movies, video games, computer games, posters, clothing, shoes, backpacks, snack containers, toys, cards, bedding or comics (Marsh, 2004; Marsh & Thompson, 2001).
9. Explicit teaching – using examples of PCEP to teach emergent literacy skills
10. Balanced Literacy – The school district for this study adhered to the balanced literacy characteristics of Fountas and Pinnell (1996). Specifically, this school

district utilized the components of guided reading, literacy centers, shared reading and shared writing.

Summary

This chapter presented a plan to guide the researcher through the research process. The socio-cultural theory of Vygotsky(1978) and the situated learning theory of Lave and Wenger (1991) guided this study. The following chapter will address the literature which supported the study's theoretical and conceptual framework.

CHAPTER II

REVIEW OF LITERATURE

“By linking the reading of words to the reading of worlds that children know best, we can spark their enthusiasm for literacy learning in school” (Orellana & Hernandez, 1999, 2003).

Children of the twenty-first century have encountered various forms of print before entering school. The environmental print found on signs, logos, food and restaurants (Goodman, 1986; Lomax & McGee, 1987; Purcell-Gates, 1996) have continued to be a source of text for young children. But, as the media has permeated the American home (Rideout et al., 2003), another form of environmental print has become significant. Popular culture print from the characters of television and videos has been observed in books, toys, clothing and home furnishings (Marsh, 2004). The following paragraphs reviewed the research on the significance of including popular culture environmental print as the impetus for teaching school-based emergent literacy.

Environmental Print

Environmental print has been utilized in classrooms as a strategy to develop emergent literacy skills since the 1980s (Goodman, 1986; Lomax & McGee, 1987; Purcell-Gates, 1996). Adams (1996) explained that when children attend to environmental print, a fundamental step toward reading has been achieved. Studies have focused on using environmental print during the prekindergarten years to first grade. The following paragraphs described the studies in order of grade level.

Prekindergarten Studies

Scholars reported that reading behaviors begin before children entered public school (Mason, 1980). Mason determined that the reading of signs and labels in the environment assisted children in reading words (1980). In Mason's study, the more parental instruction given when reading labels in the environment, the stronger was the reading foundation before entering school. Clay (2002b) concurred with Mason (1980) that the more literacy activities encountered by preschool children, the better prepared they were for their kindergarten year (Clay, 2002b). Lomax and McGee (1987) determined that prekindergarten children were "expert environmental print readers" (p. 251).

Goodman (1986) identified environmental print as one of the "roots" of literacy. Goodman and Altwerger (1981) studied the ability of children from age three to five to read environmental print (p. 2). They concluded that reading print in the environment occurred before reading a printed book (Goodman & Altwerger, 1981). Goodman (1986) determined that 60 percent of the 3-year-olds and 80 percent of 5-year-olds read environmental print when logos were included. For example, the children read a restaurant sign using the colors and logo, rather than focusing on the print when identifying a restaurant. Reading the print in a different color or when the print was separated from the logo was determined to be more difficult (Goodman, 1986).

In addition to Goodman's studies with prekindergarten children, Neuman and Roskos (1993) studied prekindergarten children and the effects of including an adult

within literacy-related play. This study observed the use of functional and environmental print in the classroom of 177 children attending Head Start (Neuman & Roskos, 1993). Functional print was defined as print used to accomplish everyday activities, such as reading a recipe or the phone book. The children's ethnic composition of this study was 98 percent African American and two percent Hispanic living in an urban area. Each of the eight Head Start classrooms contained similar centers and curriculum. Parents were selected to work with the children in the center that contained environmental and functional print (Neuman & Roskos, 1993).

The 177 children in this study were randomly assigned to two groups, one that received the intervention and one that lacked the intervention. The experimental group was subdivided into two groups. One of the intervention classrooms consisted of an office play setting using a parent or teacher to stimulate the play. The second experimental group consisted of two classrooms that offered an office play setting and included a parent or teacher only monitoring the play. Three classrooms were assigned as the control group in which the children participated in free-play during center play. The children were tested before and after the intervention with the Test of Early Reading Ability (TERA). An analysis of variance (ANOVA) of the pre-test scores indicated a statistically insignificant difference between the groups (Neuman & Roskos, 1993).

This intervention provided literacy-related materials. Seven labels or signs common to office settings, such as EXIT and OPEN, were incorporated as environmental print (Neuman & Roskos, 1993, p. 104). In addition, examples of functional print, such as a calendar and phone book were included. The adults, assisting

with the intervention, were trained to contribute to the play, rather than teach concepts. The intervention lasted five months. However, the children attended this center only when an adult was present, which was three days a week.

Data were collected through transcribed video recordings (Neuman & Roskos, 1993). After the intervention, two print measures were administered to individual children. Environmental print was assessed through the children's ability to read labels and signs from the context of the play setting. Further, functional print was measured by identifying a page in a phone book, calendar, letter, message pad and catalog.

Tallies of literacy-related activities revealed that the experimental group had more literacy-related behaviors than the control group (Neuman & Roskos, 1993). Because this intervention extended over five months, the results were unaffected by the novelty of the new center. An analysis of variance (ANCOVA) revealed significant results when testing the reading of environmental print from children in the group with adult mediation $F(2, 135) = 17.16, p < .001, \eta^2 .46$ (Neuman & Roskos, 1993). Therefore, it appeared that including an adult to interact with the children in the classroom was important in stimulating literacy.

Dunn, Beach and Kostos (1994) also studied prekindergarten children and the use of environmental print within the classroom. Dunn et al. (1994) focused on environmental print utilized in daycare settings with prekindergarten children. They found that both environmental and functional print were absent from the 24 centers observed (Dunn et al., 1994).

Justice and Ezell (2002), on the other hand, observed prekindergarten children at a Head Start center. These researchers measured print concepts, word and print recognition and alphabet knowledge after children participated in a book reading session with a “print focus” (Justice & Ezell, 2002, p. 17). The prekindergarten children were grouped according to chronological age and then separated into control and experimental groups. The control group’s attention centered on reading a book using the pictures, rather than reading print during a reading session. Post tests revealed that the children, who participated using the “print focus” (Justice & Ezell, 2002) reading sessions, increased their alphabet knowledge, word recognition and print recognition more than the children assigned to the control group.

In addition to these prekindergarten studies, Purcell-Gates (1996) studied the home environment of high-poverty children, ages 4-6 in a year long qualitative study. The research questions of this study posited understanding the usage of print used in the children’s homes, the knowledge about print written and the relationship existing between the home literacy environment and literacy knowledge. Literacy knowledge was measured qualitatively through observations, interviews and testing the children’s literacy skills (Purcell-Gates, 1996).

Purcell-Gates (1996) found that literacy knowledge was acquired most frequently either through everyday living activities or when the family was involved in entertainment. The examples read most frequently were coupons, ads and printing on containers. The amount of print in the children’s homes and the interactions with that print correlated with higher literacy scores. Through the use of functional print and

observing reading in the home, children learned about the mechanics of reading. Reading the "TV Guide" (Purcell Gates, 1996, p. 423) and observing board game rules stressed the significance of reading for information and the importance of using the alphabetic principle. The usage of environmental print found in the home was noteworthy since the children's interactions with parents correlated with higher literacy scores.

Researchers have also studied how children read environmental print (Reutzel, Fawson, Young, Morrison, & Wilcox, 2003). Reutzel et al. (2003) focused on reading eight examples of environmental print in and out of context for prekindergarten children. Each time an example of environmental print was shown to the children, one aspect was changed. The environmental print was first presented in the original format; then the color of the logo was changed. Next, the logo was separated from the print; then the spelling of the word was changed. Last, the font of the environmental print was altered. The findings from this stage of the study divided the children into levels according to their scores when reading the environmental print in and out of context. Once these capabilities were understood, Reutzel et al. (2003) analyzed whether print knowledge, alphabet knowledge or phoneme knowledge assisted the children's ability to decipher environmental print in and out of context.

Reutzel et al. (2003) found that children, who were able to read the environmental print in all of the five presentations, possessed a greater knowledge of print concepts. Based on this exercise, Reutzel et al. (2003) labeled these children as "conventional readers" (p. 131). Additionally, this study focused on understanding the

print concepts that assisted reading environmental print in and out of context. Reutzel et al. (2003) determined that the concept of a word, a letter and punctuation assisted children in reading environmental print out of the original context. Younger children were able to read environmental print using the color and logo visual cues. From the study, Reutzel et al. (2003) concluded that environmental print should be utilized within the literacy curriculum to teach specific letter and word concepts.

Kindergarten Studies

Kindergarten students have also been the subject of research on environmental print. Purcell-Gates (1996) and Reutzel et al. (2003) studied kindergarten children in conjunction with prekindergarten children. Both studies determined the significance of environmental print usage in the home and at school to teach emergent literacy skills. The following paragraphs described kindergarten children and their relationship with environmental print.

Finn and Aldridge (1991) studied 12 children with special literacy needs. These kindergarten children were asked to bring environmental print from home for a “reading treasure box” (Finn & Aldridge, 1991, p. 414). Multi-level activities were employed using the print brought from home. Students wrote about the examples of their environmental print, studied the letters employed in the environmental print, separated words from the logo and played games with the environmental print (Finn & Aldridge, 1991). Finn and Aldridge (1991) found that incorporating print from home increased the children’s attention span. Additionally, the children appeared to be more confident of their reading ability when they read environmental print at school that had been brought

from home (Finn & Aldridge, 1991).

On the other hand, Vukelich (1994) examined the effect of exposure to environmental print on kindergarten children with the assistance of an adult (1994). In this study, 56 high-poverty children with ethnicities of 78 percent European American, 13 percent African American, 7 percent Hispanic and 2 percent Native American were randomly assigned to three kindergarten classes. Each kindergarten class had a different variable to be tested: a non-enriched setting, a print-enriched setting and a print-enriched setting utilizing an adult. The fifteen week intervention was preceded by a pre-test on print awareness skills and followed by the administration of a post-test. Specifically, environmental print was assessed in-context and out-of-context. The in-context print testing consisted of individual children reading print in the original form. Out-of-context print was printed by hand and also read by the kindergarten students (Vukelich, 1994).

The print-enriched settings with an adult mediating the play settings consisted of a restaurant, a post office, a shoe store, a veterinary hospital and a camp site (Vukelich, 1994). Each center was enriched with environmental print commonly observed at these locations. As the children played, the researcher interacted with the children when appropriate, while an assistant transcribed the communication that occurred. The activities consisted of reading print or identifying initial sounds to decipher the print in the center area. In addition to the notes taken by the assistant, video tapes of the interactions provided data for the study (Vukelich, 1994).

The print-enriched group experienced the same examples of environmental print and centers as the other experimental group (Vukelich, 1994). However, an adult

intervened in the play to resolve disputes. If a question arose about how to read the print, the adult told the child to ask a peer for help. The non-enriched classroom followed this same procedure, but the intervention of using environmental print experienced by the other two groups failed to be provided.

The assessment required the children to read environmental print in and out of context in a variety of settings (Vukelich, 1994). While the analysis of variance (ANOVA) for a pre-test on print concept among the three groups revealed few significant differences [$F(2, 53) = .88$], the experimental group's post test of reading words out-of-context, while including adult mediation, was greater than the other two groups [$F(2, 53) = 4.82, p = .01$]. Additionally, children in the experimental group read more environmental print in-context, than the print-enriched group. Further, the print-enriched group read more environmental print in-context than the non-enriched print group. Specifically, children participating in the print-enriched post office center, utilizing an adult mediator scored a mean of 7.47 and standard deviation of 2.87. The print-enriched group had an overall mean of 3.94 and a standard deviation of 2.87, while the non-enriched group had a mean of 1.48 with a standard deviation of 2.66. An analysis of each play setting showed that the play setting provided an environmental context to assist children with learning to identify the printed words (Vukelich, 1994).

Another kindergarten study was completed by Kuby and Aldridge (1997). Kuby and Aldridge (1997) examined whether or not direct or indirect instruction enhanced the reading of environmental print. The sample was composed of 106 inner-city kindergarten children (Kuby & Aldridge, 1997). In the quasi-experimental design, two

classes received direct instruction, two classes received indirect instruction and two classes were assigned to the control group. After an eight month intervention, the children were evaluated with the Test of Early Reading Ability (TERA). Children in the group receiving indirect instruction scored higher than children receiving direct instruction and those in the control group.

Further, Kuby and Aldridge (2004) also observed kindergarten children using environmental print to learn print concepts through the use of indirect and direct instruction. The Environmental Print Checklist (EPC) was employed for the pre and post-test in the study (Kuby & Aldridge, 2004). Indirect instruction consisted of guidance by the teacher before play began in the centers. Once play began, the teacher allowed the learning to continue without interruptions. The EPC assessed whether the print was recognized in the original color of the word, in black and white color of the word, in the manuscript form of the word, in a typed copy of the word and in a manuscript written sentence. The findings from Kuby and Aldridge determined that indirect instruction allowed the children to discover print concepts in a constructivist manner (2004).

First Grade Studies

Orellana and Hernandez (1999, 2003) studied environmental print found in the community in which first grade children attended school. Orellana and Hernandez (1999, 2003) were interested in strategies that utilized the neighborhood's environmental print to teach literacy in the classroom. The researchers questioned children, who spoke Spanish as their first language, as to whom they thought wrote the signs, what the signs

signified and why the signs were in that location in their neighborhood (Orellana & Hernandez, 1999, 2003).

At first, the children appeared disinterested in the questions of the study (Orellana & Hernandez, 1999, 2003). However, during one of the walks around the neighborhood, the children encountered a video store and they began reading video titles. Another form of print that encouraged conversation was examples of graffiti on the buildings. The children identified gangs by the letters written within the graffiti. At the end of the first walk, Orellana and Hernandez concluded that the environmental print had specific meanings to some children, while it meant nothing to others (1999, 2003).

On the second walk, Orellana and Hernandez (1999, 2003) focused on “reading the world” (p. 616). Rather than focusing on the print, the children located environmental print that had personal meaning. Examples of this print included a preschool attended by one child, a parent’s workplace and a grocery store frequented by the family. Pictures were also taken of any signs of interest to the children. The photographs later became the impetus for stories within the classroom. The resulting stories revealed ways that literacy activities connected to the environmental print found in the neighborhood of first grade urban children (Orellana & Hernandez, 1999, 2003).

To summarize, these studies noted that environmental print was associated with beginning literacy skills in the classroom. Prekindergarten children were “experts” at reading environmental print (Lomax & McGee, 1987, p. 251). However, their attention focused on the color, font and logo of the environmental print (Reutzel et al., 2003). Reutzel et al. (2003) determined that explicit print instruction using environmental print

should be an implication for future studies. Literacy-related behaviors of prekindergarten children were increased using indirect instruction and with the assistance of an adult (Neuman & Roskos, 1993). Vukelich (1994) and Kuby and Aldridge (1997) found similar findings of Neuman and Roskos (1993), while conducting a study of kindergarten children. Kuby and Aldridge (1994, 2004) found that using environmental print with indirect instruction, rather than direct instruction improved children's literacy skills. Orellana and Hernandez (1999, 2003) studied second language learners in first grade. These researchers established that the local environmental print children observed on their walk to school became the impetus for children to write personal narratives in the classroom (2001).

Technology in the 21st Century

The preceding studies were focused on traditional environmental print found in signs and labels. However, the community and family environments, which previously provided the traditional environmental print, have now become immersed with a vast number of technological advances including videos, television programs and computer games. With each new form of technology or media, an alternative text entered. The following section explains how videos, television and computer games have evolved into a significant form of print now present in home and community environments.

Media Usage

Media usage in the United States has become a phenomenon. Rideout, Vandewater and Wartella of the Kaiser Foundation (2003) identified the amount and usage of technology in the American home. Rideout et al. (2003) surveyed 1,065

parents of children ages six months to six years regarding the family's electronic media usage. Children, who were less than six years old, watched a television or video related media two hours a day (Rideout et al.). Also, children as young as six months old had encountered digital media, such as television or videos. This generation of children began their lives surrounded by media (Rideout et al.).

Surveyed parents believed that watching television was a benefit to their child's cognitive growth (Rideout et al., 2003). Forty-two percent of the parents reported that watching television facilitated learning (Rideout et al., p. 8). Specifically, parents felt that educational television shows, educational videos and computer games benefited their child's academic skills. Of the media surveyed, computers were considered most helpful to the children's academics (Rideout et al.).

According to Rideout et al. (2003), watching movies at home has been identified as a regular activity in American homes. Ninety-five percent of the homes with children from zero to six years owned at least one piece of technology used to view home videos. This technology was located in the child's bedroom in one out of four children (Rideout et al., 2003). Rideout et al. determined that video games were played less often by children ages zero to six than children over six years of age. Specifically, thirty percent of the children from ages zero to six played video games with boys utilizing them more often than girls.

Further, the Kaiser Foundation examined the "digital divide" as related to media usage in the United States (2004, p. 1). The term "digital divide" (p. 1), described the demographic gap of computers and Internet usage by families. The Kaiser Foundation

found that 75 percent of the children from affluent families, those earning \$75,000, have used the Internet on a computer (Kaiser Foundation, 2004). On the other hand, 37 percent of the children from families, earning under \$20,000 a year, had also utilized the Internet. However, children under the age of six attending high-poverty schools, lacked computer experiences (Kaiser Foundation, 2004).

Moreover, the Kaiser Foundation further determined that the gaps for computer usage were related to racial inequities (2004). Forty-one percent of the children, under the age of six representing non-white families, lacked familiarity with a computer. The Kaiser Foundation also reported that children attending high-poverty schools had fewer computers per student (2004).

Gentile and Walsh (2002) conducted a study of children ages 2 to 17 in the United States. They reported the children on average watched television or video media for 25 hours a week (Gentile & Walsh, 2002). They further noted that Hispanic American and African American children engaged in more media activities than European American children. Additionally, the study found children from high-poverty homes viewed media for longer periods of time than children from affluent families (Gentile & Walsh, 2002).

Gentile and Walsh (2002) concurred with Rideout et al. (2003) as to the number of televisions located in a child's bedroom. Gentile and Walsh (2002) found that 20 percent of 2 to 7 year olds watched televisions in their bedrooms. Additionally, they noted that Hispanic American and African American families had a greater number of televisions in their bedrooms than European American families (Gentile & Walsh, 2002)

Further, lower income families more frequently placed televisions in their child's bedroom than affluent families.

Likewise, Woodward and Gridina (2000) surveyed 1,235 parents of children, ages 2 to 17, in the United States. Further, they interviewed 416 children, between the ages of 8-16, regarding their viewing habits. Forty-eight percent of the surveyed sample possessed four pieces of media such as television, video recorder, video games or computer in their home (Woodward & Gridina, 2000). Additionally, 57 percent of this sample watched a television located in their bedroom. Thirty-nine percent operated video games in their bedroom, while 30 percent viewed videos in their bedrooms.

Woodward and Gridina (2000) report similar results as the Gentile and Walsh (2002) and Rideout et al. (2003) studies with respect to the relationship between socio-economic status and media usage. Parents, who earned less than \$30,000, were less likely to have computer and Internet access (Woodward & Gridina, 2000). Additionally, they reported that children from high-poverty homes viewed television or video tapes and played video games more than children from middle and high socio-economic families.

Woodward and Gridina (2000), Rideout et al. (2003) and Gentile and Walsh (2002) agreed that young children were often occupied by media usage for several hours during the day. Woodward and Gridina (2000) found that children spent 6 ½ hours a day observing television and videos as well as interacting with computers. Additionally, Woodward and Gridina (2000) reported that children from high-poverty homes viewed television 54 minutes more, videos 30 minutes more and video games 27 minutes more

than affluent children. However, they also noted that all parents were concerned about the media's influence on their children (Woodward & Gentile, 2000). Further, Woodward and Gentile (2000) identified that 86 percent of the parents perceived that excessive media usage decreased the amount of time children read books.

Studies on media usage have also occurred in the United Kingdom. The findings of Livingstone and Bovill (1999) were similar to studies conducted in the United States regarding television viewing habits. Livingstone and Bovill (1999) reported that 99 percent of the families with children, ages 6 to 17, owned a television and watched it an average of two and a half hours a day. Viewers, who watched the most television, were between the ages of six to eight years old (Livingstone & Bovill, 2001), while videos were observed by the children under the age of eight.

Additionally, Livingstone and Bovill's (1999) results correlated with studies in the United States. They determined that children representing high-poverty families were watching more videos and television than middle-class children. Only four percent of the families in the United Kingdom reported lacking a video recorder in their homes. Further, children watched videos an average of 39 minutes per day.

Moreover, computer ownership was found more often in affluent families (Livingstone & Bovill, 2001). Livingstone and Bovill (1999) reported that 60 percent of working class families failed to own a computer. If the working class family owned a computer, it was used for "leisure" rather than non-game activities (Livingstone & Bovill, 1999, p. 23). However, Livingstone and Bovill (1999) stated that computer

games were played by 64 percent of the surveyed families an average of 79 minutes per day.

In addition to the usage survey in the United Kingdom, Marsh (2004) expanded the research by surveying parents regarding the value placed on the media used to teach emergent literacy skills. The sample of the Marsh (2004) study focused on a Sure Start community in Great Britain. This population consisted of Caucasian working class families. In this study, a questionnaire was piloted with five families and later sent to 260 randomly selected families (Marsh, 2004). Forty-four families responded to the questionnaires, while twenty-six agreed to be interviewed. The questionnaire examined the range of popular media environmental print represented in television, computer games, cell phones and music. Parents were also asked about their interactions with their children and the student activities incorporated when these forms of literacy were practiced (Marsh, 2004).

The findings indicated that television was a significant source of visual literacy in these homes (Marsh, 2004). Forty-five percent of the children watched between three and five hours of television. Also, forty-three percent of the families reported that while viewing the programs, the children were involved in pretend play, dance, song and conversation. Parents also discussed ways their children developed academic skills from watching the programs. Marsh (2004) concluded that children had engaged in a form of literacy that had previously been undervalued in the schools.

In conclusion, widespread media usage has characterized the twenty-first century. Surveys in the United States described ways media usage has been immersed in

the culture across age, ethnic and demographic variables. Rideout et al. (2003) discovered that children under the age of six viewed television programs two hours a day. Televisions, video recorders, video games or computers were owned by 48 percent of the parents surveyed by Woodward and Gridina (2000). Based on the ethnicities surveyed, African Americans, Hispanic Americans and European Americans all possessed forms of media and engaged in media usage. However, Hispanic and African American children viewed media for longer periods of time (Gentile & Walsh, 2002).

The significant amount of time expended on media usage by children under the age of six was also prevalent in the United Kingdom (Livingstone & Bovill, 1999; Marsh, 2004). Marsh (2004) found similar results regarding the amount of time spent viewing television. Rideout et al. (2003) described today's children as "immersed in the media" (p. 4). Children in these studies appear to be enamored with their favorite video and television characters (Marsh, 2004). Researchers posited that utilizing environmental print within classrooms increases emergent literacy skills (Kuby, 2004; Kuby et al., 1994; Orellana & Hernandez, 1999, 2003).

Popular Culture

Studies in both the United States and the United Kingdom identified significant amounts of time children viewed media daily in homes. Through observing the media, children were bombarded with print from the television screen rather than the page. An important facet of the media has been the print that accompanies and describes popular

culture characters from television programs, video programs and Internet websites (Marsh, 1999a).

Marsh (1999b) described popular culture for children in Western society as “largely based around toys and television” (p. 154). She argued that the child’s culture should be reflected in the literacy practices and materials in the classroom (Marsh, 1999b). Marsh (1999b) continued by stating that working class children in the United Kingdom experienced a “dissonance between the home and school literacy practices” (p. 155). Therefore, working class children found few examples of their home culture represented upon entering the classroom.

The following paragraphs describe studies that used popular culture to connect home and school literacy experiences. Specifically, the first section details research that linked the home culture to the school-based learning. The following sections focused on using popular culture to increase writing skills, enhance motivation and augment oral language of second language learners.

Linking the Home Culture to School Learning

The importance of the home culture and the literacy that pervades everyday practices within family life has been a topic of interest to researchers since the 1980s (Heath, 1983). Heath uncovered the dissonance between the home and school environment while studying the communities of Roadville and Trackton (1983). From this study, researchers realized that many forms of literacy were prevalent in the home, but undervalued in the schools (Heath, 1983).

Twenty years after Heath's study (1983), researchers have continued to observe the dissonance between schools and the home environment (Marsh, 2003b). Marsh (2003b) studied the beliefs of both parents and school personnel regarding the connection of school culture to popular culture in the home. She (2003b) asked the headmaster of a nursery school to underline the forms of literacy emphasized at their school (Marsh, 2003b). Marsh (2003b) found few of the noted literacy examples at the school reflected the child's home environment. The headmaster acknowledged incorporating six forms of environmental print, eight forms of home and environmental print, but only three types of popular media, such as texts with games, toy catalogues and books within the literacy examples (2003b).

To analyze the connection between the home and school, Marsh (2003b) used the "literacy worlds" diagram (Kenner, 2000). Kenner developed this diagram by observing three bilingual children while recording multiple layers of literacy that encompassed their world (2000). From these observations, Kenner constructed a diagram with the child in the center surrounded by the literacy circles of popular culture, the home, the community and the environment (2000).

Examples of popular literacy from Kenner's diagram included comic books, text associated with games and toys, television and film, books, computer games and stickers (Kenner, 2000). Kenner reported that literacy from the home involved newspapers, catalogues, cards, recipes, forms, parents writing examples, books, junk mail, letters, leaflets, food labels, magazines, video and compact disc covers (2000). Community examples of literacy consisted of the Bible and greeting cards, while environmental print

was comprised of maps, street names, bus numbers, advertisements, signs, notices, labels, and shop names (Kenner, 2000).

Additionally, Makin, Hayden and Jones-Diaz (2000) studied the dissimilarity between the home and school environment. Makin et al. (2000) examined perceptions of the early childhood school staff and the parents of five-year-old Australian children. After surveying families and the staff, Makin et al. (2000) noted that most of the staff had insufficient knowledge of the popular culture available in the home and the subsequent impact on literacy.

Marsh and Thompson (2001) also identified the social and cultural practices of the home and ways they differed from those found in the school. Marsh and Thompson (2001) studied how television texts were utilized within the homes of young children. The goal of Marsh and Thompson was to determine the types of popular literacy used at home to create literacy boxes for the children to check out for the evening (2001). Literacy diaries were also employed literacy diaries for parents to record the usage of printed and television texts (Marsh & Thompson, 2001). In addition, interviews regarding the value of popular culture in the home were included. From the data collected, the researchers created media boxes reflecting those examples of popular culture found in the children's homes (Marsh & Thompson, 2001).

The parent's literacy diaries identified numerous video and television programs watched, computer games played as well as books and comics read by the families (Marsh & Thompson, 2001). This data supplied additional information regarding the books necessary to complete the media boxes. Once the boxes were completed, the

families who checked them out were then motivated to use them. Parents indicated in the diaries they were more comfortable reading and interacting with the texts based on television and video programs. Parents believed the inclusion of popular media characters enhanced the dialogue they had with their child. In addition to supplying the staff with valuable information about the home culture, the children and family became more involved in literacy development (Marsh & Thompson, 2001).

Further, Marsh studied pre-service teachers in the United Kingdom and their use of popular culture (2005). The data were recorded from two sets of interviews that occurred within the student's first and third years of undergraduate coursework (Marsh, 2005). Marsh (2005) found that the experiences of pre-service teachers with popular culture affected their attitudes toward whether it's implemented within the classroom. Pre-service teachers also learned that the use of some popular culture in the schools was considered "taboo" (Marsh, 2005, p. 171). One teacher interviewed by Marsh (2005) utilized *Pokeman* to motivate a student's reading, while the student was being tutored outside the classroom. After the tutoring session, the pre-service teacher told the student "you mustn't go back into class all excited about this because we'll be in trouble" (Marsh, 2005, p. 171). The pre-service teacher appeared to be concerned about using popular culture texts to teach literacy skills due to the attitudes pervasive at the school (Marsh, 2005).

On the other hand, the dissonance evident between the school and home environments was absent in an Australian study involving after-school childcare (Vered, 2001). The philosophy of these childcare centers was to provide "recreational facilities

play spaces and child-centered spaces where children's leisure and pleasure are paramount" (Vered, 2001, p. 3). In this study, Vered (2001) identified the relationship of viewed cartoon and video characters and the integration of these characters in pretend play. Parents commented that the staff's positive attitude regarding the children's favorite characters "provided a space away from home where *Pokeman* can be valued and their children's interests and skills can be validated by peer recognition" (Vered, 2001). By understanding the culture of the home, the dissonance between the school and home environment appeared to be less.

To summarize, these studies identified a dissonance between the school's and home's environment in relation to utilizing popular culture print. The home environments were identified as possessing examples of popular culture print (Kenner, 2000; Marsh, 2003a; Marsh & Thompson, 2001), while early childhood staff lacked an understanding of the importance of integrating popular culture print within the classroom (Makin et al., 1999). Further, Vered (2001) reported the significance of validating home values at school.

Popular Culture and Writing

The studies of Makin et al. (2000), Marsh (2003b, 2005), Marsh and Thompson (2001), and Vered, (2001) found that a dissonance existed between the school and home environments. Gay (2000) described valuing the home culture in the classroom as providing instruction relevant to the child's culture. The culture of the child has also been included in writing curriculum of older children (Mahar, 2003; Millard, 2002, 2003). The following paragraphs illustrate studies that utilized popular culture in the

classroom to enhance the cognitive and affective domains. These studies utilized the culture of the child to create a meaningful school curriculum.

Dyson (2003a, 2003b), a leading United States researcher in the use of popular culture within the classroom, illustrated this process qualitatively. Dyson (2003a, 2003b) recorded data as children used popular culture to frame invented games and stories. During an observation, the children asked their teacher to let them watch the video, *Space Jam*. In the middle of the video, the teacher turned it off and questioned the children about the sequence of events. The children discussed the events and also described the characters and storyline (Dyson, 2003a, 2003b).

During another observation, Dyson (2003a, 2003b) recorded how children fused popular culture songs within their writing. Two girls had been singing songs during recess and the girls used this dialogue to produce a radio play. Both students became a character in their story and then took turns writing passages from popular love songs. The girls performed their songs on the playground, but believed the teacher “wasn’t used to this style of song” (Dyson, 2003b).

Dyson (2003b) observed another child, Noah, during writing workshop. Noah included a text about the movie *Space Jam* (Dyson, 2003b). Dyson observed lively conversations about the characters of this video. Dyson (2003b) recorded how Noah “could scarcely contain his giggles as he shared his facts about *Space Jam*” (Dyson, 2003b, p. 21). Dyson (2003b) concluded that the curriculum of high-poverty children reflected cultural texts familiar to them.

Additionally, Dyson (2001) expanded literacy by including texts familiar to the children. Dyson (2001) stated that relating the children's prior knowledge with the infusion of popular culture into literacy activities allowed them to be "playful" (p. 36). The children were observed utilizing the video game, *Donkey Kong* (Stampler, 1986) in their stories (Dyson, 2003). After reading the literature selection, *Little Bear* (Minark, 1957), Noah created a story about the character, Little Bear, who lived in "Donkey Kong Country" (Dyson, 2003, p. 27). Noah's resulting story was derived from his cultural perspective of playing Donkey Kong woven within a school-based literature selection.

Moreover, Dyson (1999) observed different kinds of popular culture that occurred in the writing of young children. Specifically, Dyson (1999) found of 20 children, 15 wrote about films, while 9 children wrote about sports media. Of the nine children who wrote about sports media, eight were boys (Dyson, 1999). When writing about sports media, the children included text about the players, game results, team symbols and dialogue from the team (Dyson, 1999).

Dyson (1999) observed one student, Marcel, who frequently chose football as his writing topic. Dyson (1999) noted that two-thirds of Marcel's writing in January referred to the media and half of those examples focused on sports media. During science, Marcel and his classmates were instructed to write about planets. After Marcel completed that assignment, he began listing sports teams and their locations within their respective states (Dyson, 1999).

Later in the year, Marcel's knowledge of states, gained through his awareness of sports media, was transferred to an interest in weather (Dyson, 1999). After learning

about tornados, Marcel became interested in locating the states on a map. The knowledge Marcel gained through the location of sports teams enhanced his map knowledge and also became the impetus for an interest in weather (Dyson, 1999).

In addition to using sports media, Marsh (1999a) incorporated popular culture characters, *Batman and Batwoman*, into the literacy curriculum. A Batman and Batwoman Headquarters were created in two classrooms for six and seven-year-old students in Sheffield, England. Literacy materials such as a Bat Cave were placed in this area for socio-dramatic, literacy-related play. The researcher utilized observations, interviews, video-taping and statistical analysis to observe the effect of including a popular culture literacy play area (Marsh, 1999a).

Seven hundred, twenty-eight literacy-related events were recorded during the 10 days of observation (Marsh, 1999a). Specifically, children were writing signs, messages and letters during dramatic play. The children also wrote stories, comics and newspaper articles that referred to Batman and Batwoman. A boy, who was reluctant to write, became intently involved in writing while playing at the Bat Cave. Marsh (1999) described this activity as a “non-threatening situation that provided the child with an increased confidence in his literacy skills and he volunteered to undertake writing tasks in the classroom during this project” (Marsh, 1999a, p. 125).

Further, Marsh (2000a, 2003a) utilized the cartoon *Teletubbies* to motivate prekindergarteners to write. The researcher utilized Teletubbies cartoon characters in big books, writing, art and literacy-related activities in the classroom. Marsh (2000a, 2003a) observed the reactions of the children as they participated. Students, previously

uninterested in writing, were motivated to write about their favorite cartoon character. Marsh found that incorporating Teletubbies was significant in developing literacy skills (2003a). Through her qualitative research study, Marsh concluded that prekindergarten children's literacy skills developed due to the interest in the subject and the activities that involved Teletubbies (Marsh, 2000a, 2003a).

In addition to enhancing the children's writing expertise, researchers have utilized popular culture to understand the children's personal beliefs (Alvermann, Moon, & Hagood, 1999). Alvermann, et al. (1999) stated that engaging students in discussing their favorite superheroes enhanced their critical thinking skills. This group of researchers studied children illustrating themselves as the perfect superhero (Alvermann et al., 1999). Before the children began, Alvermann et al. discussed characteristics of the perfect superhero. They noted that the students had personal views and appeared to be the "experts who gave one another information and feedback, while I, the teacher was very much an observer" (Alvermann, et al., p. 51). Moon acquired additional information of the children's personal and social values (Alvermann et al.). For example, Maria was captivated with Leonardo DeCaprio and transformed her superhero to have the head of the actor. This assignment allowed the teacher, Moon, to understand the "fantasies" of the children in her class (Alvermann et al., p. 56).

Additionally, Alvermann et al. (1999) suggested that superheroes lessons for young children be extended to encourage critical thinking. The female subjects in this study chose male superheroes as their perfect superhero (Alvermann et al., 1999). Since, as role models, fewer female superheroes existed (Alvermann et al., 1999), the girls had

fewer superheroes for girls to personally identify. Alvermann et al. posited having a discussion of male and female superheroes, their powers and their differences.

Alvermann et al. explained that educators should be interested in including popular culture texts, but realized that using them for instruction affected the children's perceptions of themselves (Alvermann et al., 1999). Thus, educators should maintain an appropriate balance between all forms of environmental print and use the popular culture text to develop critical thinking skills (Alvermann et al., 1999).

Further, researchers have examined the integration of popular culture within literacy curriculums (Xu, Perkins, & Zunich, 2005). Xu et al. (2005) observed primary teachers, who had implemented popular culture within their curriculum, and described the results. The first primary teacher observed in the study was Jean. Jean questioned her students about whether or not female superheroes existed, but the children were unable to identify any. Xu et al. concurred with Alvermann et al. (1999) in that stereotypical attitudes were prevalent in children's knowledge of superheroes. Additionally, Xu et al. noted that standards identified by the International Reading Association (IRA) and National Commission on Teachers of English (NCTE) standards were the objectives taught to the children during the unit on superheroes (Xu et al., 2005).

Xu, et al. (2005) also observed a primary teacher, Sherry, who taught third grade children reading below grade level. Sherry wanted to motivate these third grade children to read. Thus, a survey regarding their popular culture interests was given to the children. Their popular culture interests included rap and Latino music. The children

were allowed to choose favorite songs for a research project (Xu et al.). After listening to the lyrics and observing the children with the music, Sherry realized that the children appeared more interested in the rhythm than the lyrics. To enhance their enjoyment and teach research skills, the children investigated the song writers' lives. Additionally, the third graders and their teacher learned to dance "La Cumbia". To conclude the unit, the children compared the two songs, "Azucar" and "Who Let the Dogs Out?" (Xu et al., p. 35), while educational standards were mastered during the unit. Further, Xu et al. noted that an additional outcome that arose was building a closer relationship between Sherry and her students (Xu et al., 2005).

The last primary teacher Xu et al., (2005) observed was April, who taught 20 third grade students from migrant families. Xu et al. noted that the teacher also surveyed her students to determine their interests, but chose the cartoon character, *Scooby-Doo* because of her personal knowledge of this character (2005). The children read the first few pages of a Scooby-Doo book and then created an ending to the story. The children cooked Scooby-Doo Snacks and then created a recipe book of their favorite recipes. This unit also correlated with mandated standards for teaching literacy skills. April also integrated popular culture by having students compare and contrast Scooby-Doo with *Inspector Gadget*. The students also identified character traits of both the cartoon characters and then compared them in a written assignment (Xu et al.).

Xu et al. (2005) concluded from these primary vignettes that more learning had occurred during units which included popular culture characters familiar to students, than only teaching mandated standards. Jean enhanced the children's knowledge of their

biases while studying superheroes. Sherry's students attained knowledge of the Hispanic and Bahamian culture in their literacy unit. April's students created a cookbook to enjoy and read after the Scooby-Doo unit. Popular culture units appeared to enhance the affective domain of the children, while assisting the teachers in building relationships with their children.

Likewise, Hall and Thompson (2004) identified ways that popular culture facilitated relationship building in the classroom. In this narrative study, the researchers observed students discussing dreams (Hall & Thompson, 2004). This discussion encouraged a student, Maxine, to describe her dreams of how "Nanna" (Hall & Thompson, 2004, p. 227) died. While explaining her dreams, Maxine referred to two films, *Pet Semetary* (Lambert, 1989) and *Ghost* (Zucker, 1990). The films assisted Maxine in communicating her feelings to her peers, since it appeared that they were familiar with these popular culture films. Her peers also expressed shared memories of departed family members; thus enhancing the teacher's knowledge of the socio-cultural aspect of the children's lives (Hall & Thompson, 2004).

These studies described using popular culture as the vehicle for teachers to better understand the students in their classroom (Dyson, 1999, 2001; Marsh, 1999a, 2003a; Xu et al., 2005). Alvermann et al. (1999) explained that popular culture texts affected the perceptions children have of themselves. According to researchers, when popular culture was utilized, better relationships developed within the classrooms and instruction became more relevant (Dyson, 1999, 2001; Marsh, 1999a, 2003a; Xu et al., 2005).

Popular culture has been woven into teaching educational skills. Marsh (1999a, 2003a), Dyson (2003), Hall and Thompson (2004), Xu et al. (2005) utilized popular culture to teach language arts skills of reading, writing, speaking and listening. Alvermann et al. (1999) found that the use of popular culture text developed critical thinking skills, while Dyson (1999) concluded that a primary reason for including popular culture within the curriculum was the familiarity of the children. Utilizing the children's prior knowledge of popular culture has become the impetus for attaining many school-based skills.

Motivation and Popular Culture

In addition to popular culture providing more relevant instruction to the children, research on popular culture has determined how it motivates reading. Motivation has been described as a key concept to transfer learning (Bransford et al., 2000). Keller (1987) established a model for achieving motivation, Attention, Relevance, Confidence and Satisfaction (ARCS), in which each of the four components have specific characteristics (Keller, 1987). To increase attention, Keller advised varying instruction and activities (Keller, 1987). Relevance is developed by employing objects and language that relates to the children prior knowledge (Keller, 1987). Confidence occurred through activities designed for success, while satisfaction is an outcome when children are given the opportunity to use their new skills (1987).

Alvermann et al. (2005) noted that the children became more motivated when popular culture was included in the school setting. As the teacher described the superhero project with the second graders, "their eyes lit up and a smile came across the

faces of these students who a moment earlier were sitting with dull and uneasy expressions” (Alvermann et al., p. 43). The following paragraphs described studies fusing popular culture with teaching literacy standards that have been proven to motivate children to attain literacy skills (Marsh, 2000a; Millard, 2003; Millard & Marsh, 2001; Norton, 2003; Worthy, Moorman, & Turner, 1999).

Millard and Marsh (2001) conducted a two-phase study focusing on using comic books to motivate five- and six-year-old children to read. The first survey identified reading choices of 254 boys and girls in the United Kingdom (Millard & Marsh, 2001). The second phase of the study examined the responses from parents, teachers and students using a lending library of comic books. Children checked out comic books for a week from the lending library during the project (Millard & Marsh, 2001).

Children were then interviewed individually and in groups (Millard & Marsh, 2001). Eighty percent of the five-year olds were surprised that comic books were available in the school library. Viola, age 6, commented that the library was important because (Millard & Marsh, 2001, p. 28) “we read ‘em lots of times and it’s good for your reading” (Millard & Marsh, 2001). Further, teachers observed improvement in the children’s reading achievement level. They attributed the increases to the children’s interest level (Millard & Marsh, 2001).

Likewise, Norton (2003) found similar results when popular culture comics were included within the reading instruction of older elementary students. Norton (2003) interviewed, observed and utilized questionnaires to understand the appeal of *Archie Comics*. Norton found that the pleasure derived from reading the comic books resulted

in students' self-assurance when reading and also increased the commitment to read daily. Therefore, Norton (2003) advised educators to consider incorporating comics into school literacy practices to encourage reading.

In addition to comics providing motivation to master literacy skills, videos have also been utilized. Millard (2003) focused on older elementary students composing narratives of life in the middle ages. Within their narrative, students were to choose settings, companions, enemies, people to be rescued and objects to retrieve. The students' choices were drawn from various videos. The *Hobbit* (Bass & Rankin, 1977) video and book were reflected in one boy's story. Another child recalled memories from the "*Chocolat* (Hallstrom, 2001) video recently watched with her mum" (Millard, 2003, p. 6). Millard (2003) reported that girls chose to rescue animals based on *Harry Potter* (Columbus, 2002) and Princess Diana. In the boy's narratives, they chose the *Hobbit* and *Darth Vader* to be a companion character (Millard, 2003).

Millard (2003) defined this utilization of popular culture within standards-based curriculum as "transformative pedagogy of literacy fusion" (p. 6). This process was explained as combining the mandated objectives with popular culture content that was interesting to the children (Millard, 2003). For such an endeavor to be motivating and successful, Millard identified six characteristics (2003); access, arena, agency, affordance, appropriateness and accountability (p. 7). Access was defined as determining the appropriate popular culture character for the objective as well as the character being appropriate for school. Arena was identified as the method of sharing presentations about the popular culture unit. The teacher also examined the materials for

any hidden biases based on the popular culture characters' and modeled suitable responses when using the characteristic of agency. To fuse popular culture into school-learning, teachers had to develop an understanding of the texts, which defined affordance. Appropriateness determined popular culture examples that aligned with the objective and school policies. Accountability was described by Millard (2003) as "transforming what they already know into stuff that will give them agency and allow them to become more critical of their own and others' meanings" (p. 7).

Moreover, in an additional study focusing on motivating children to engage in literacy activities, Marsh (2000b) developed a Bat Cave with literacy materials for the children to become involved in pretend play. Marsh (2000b) discussed both male and female superheroes and their roles in the bat cave. Once it was completed, the students were excited about entering the cave. Marsh (2000b) found that superhero play also motivated girls to engage in literacy activities. Marsh (2000b) noted that even the girls, who seemed uninterested in the female superhero, Batwoman, were excited to enter the cave and interact with these activities.

Each girl, who chose to go to the Bat Cave, pretended to be either Batwoman or another female superhero (2000b). Marsh (2000b) reported that even though gender role-play was evident; there was no evidence of any hegemonic dialogue. Both the boys and girls were involved in literacy activities supplied in the Bat Cave (Marsh, 2000b).

Data were recorded during the 10 days of the intervention. The girls were involved in 371 literacy events, while the boys interacted with literacy activities 357 times (Marsh, 2000b). Diaries were also available for the boys and girls to write during

their play. The diaries were separated by gender with boys writing in Batman's diary, while the girls wrote in Batwoman's diary (Marsh, 2000b).

At the end of the study, the boys wrote six stories about Batman, while the girls wrote ten stories about Batwoman (Marsh, 2000b). Three of the stories written by the girls, pretending to be Batwoman, listed Batman in their story. On the other hand, none of the boys mentioned Batwoman in their stories. Marsh posited that the reading and writing aspect of the center may have been the catalyst in attracting the girls to become actively involved (2000b). Therefore, Marsh (2000b) concluded that the girls were "agents of action rather than passive onlookers" (p. 219) and were motivated to enter the play.

Worthy, Moorman and Turner (1999) also researched reading preferences and motivation. Worthy et al. (1999) investigated reading preferences of middle school students and how these were related to gender, socio-economic status, attitudes and achievement. Additionally, Worthy et al. (1999) wanted to correlate reading preferences with the availability of popular culture reading materials at school or home.

In the reading preferences survey (Worthy et al., 1999), 66 percent of the students favored comics and scary stories. Of the 123 students interested in "other" (Worthy et al., p. 19) forms of literacy, 99 named popular culture magazines as their preferred reading material. However, when the availability of popular culture was researched in the school libraries, selections were limited (Worthy et al.).

Librarians explained that often the popular culture selections were limited because the books were always checked out, lost or unreturned (Worthy et al., 1999).

They also reported that some popular culture selections were inappropriate or limited monies were appropriated for reading materials (Worthy et al.). Classroom libraries were also studied. Teachers offered several reasons for the exclusion of popular culture selections, which included the teachers feeling pressured to use school-based literature, lacking funds to purchase this type of literature or believed that selections were inappropriate for school use. Worthy et al. concluded that students had three options when their preferred reading choices were unavailable. They could choose reading materials outside their interests, purchase their own reading materials or choose not to engage in reading (Worthy et al.).

Carter (1990) found that children were motivated to read when it was for “fun” (p. 100), rather than for a grade. Carter (1990) studied whether or not consistent recreational reading would increase the reading achievement of urban African American children. This study compared children who read recreationally versus those who did not (Carter, 1990). Carter found that the children who read recreationally at home improved their reading scores over a three year period (1990).

Furthermore, Carter (1990) measured the motivation of the children participating in the program. Teachers supplied books to be used for recreational reading. Carter (1990) found that when the purpose for reading was for "fun" (p. 100), then reading became the motivation rather than the children receiving external rewards (Carter, 1990).

Motivation has been a key concept in the transfer of learning (Bransford, Brown, & Cocking, 2000). When popular culture print was included in the school-based literacy curriculum, students appeared to be more motivated (Marsh, 1999a; Marsh & Millard,

2001; Millard, 2003; Norton, 2003). Worthy et al. (1999) also found that popular culture print used for leisure reading was preferred and motivating. However, these genres were often unavailable as a choice in the schools.

Second Language Learners and Popular Culture

As previously discussed, popular culture appears to be a significant motivator for English speakers. Additionally, children learning English as a second language have also utilized popular culture to develop literacy skills. Orellana (1994) studied the importance of television in the lives of young bilingual children and noted that television cartoon characters assisted Spanish-speaking children in learning the English language. Orellana (1994) observed three children in a preschool setting to understand the influence of television on their bilingual language development. From the field notes and transcripts, Orellana (1994) observed students portraying cartoon characters during their play, while also practicing their English (Orellana, 1994).

During the study, the children had seen *Peter Pan* (Geronimi & Jackson, 1953) and *Disney on Ice* (Orellana, 1994). After observing these popular culture characters, the children began to integrate the characters and their use of the English language in their play. Carlos pretended to be Peter Pan, “I’m Peter Pan! There are sharks! (Dropping the play voice and turning to instruct Elisa on the game) ‘Cierra us ojos’” (Orellana, 1994, p. 182). On another occasion, Carlos was holding a *Spiderman* (Raimi, 2002) doll and pretending to be Spiderman, “Look at my hands” (Orellana, 1994, p. 182). Veronica held Minnie Mouse and pretended to say, “Into my house, I go with my

mom. I'm the girl and that's my mom. Let's go on the other side" (Orellana, 1994, p. 182).

From her study, Orellana (1994) concluded that imitating popular culture characters allowed the children to repeat the characters' words and practice their English language in a risk-free environment. Furthermore, she noted that the dominance of the English language in media programs affected the development of two autonomous languages (Orellana, 1994).

In addition, Rodriguez (1999) found that popular culture assisted three Dominican preschool children in their understanding of the English language (Rodriguez, 1999). Rodriguez (1999) studied the language usage at home including the amount of available literacy materials and the learning styles of these three children and their parents. Using a case study approach, Rodriguez (1999) first observed the children's patterns of behavior in their home environment and then analyzed them more closely. At the end of the study, Rodriguez interviewed the participants to understand the effect of television on the Dominican children (Rodriguez, 1999). Specifically, Rodriguez was observing the type of program they watched, the length of their attention span, what attracted their attention, and whether they understood the television programs.

Rodriguez (1999) found that the family's reading and writing activities correlated with functional forms of reading and writing. Television was a significant print contributor to each of the children's lives. When music, dance, loud noises or well-known commercials appeared the children focused on the television screen. The

researcher posited that the children noticed the print displayed on television programs and advertisements. Responses varied; however, the children understood that the print related to the oral language spoken by the television characters. Rodriguez (1999) concluded that teachers needed to understand the significance of television in the lives of young, bilingual children and apply their prior knowledge to classroom discourse.

Likewise, Xu (1999) investigated young second language learners and their home literacy experiences. Xu (1999) chose a multiple case study methodology with six families. These five and six year-old children spoke different Chinese dialects. Data were collected from interviews, observations of literacy activities, informal discourse and telephone conversations. All observations were completed in the Chinese language (Xu, 1999).

The home environments displayed literacy examples of both languages (Xu, 1999). English was practiced when the children read environmental print in the supermarkets. Also, when the children wanted to watch specific television programs, they read the names of the shows from the *TV Guide*. All the parents believed that watching television shows was important for their children to hear and learn to speak English. One mom said, “He can learn perfect American English from different shows” (Xu, 1999, p. 58). Parents watched the television programs with their children to also learn English (Xu, 1999).

Xu (1999) concluded that literacy experiences occurred in the homes of children learning a second language. Further, the study reported consistent television usage of

second language learners (Xu, 1999). To achieve success, teachers and parents should integrate literacy practices in both environments of second language learners (Xu, 1999).

Moreover, Kenner (2000) observed Panjabi families in West London to record children's home literacy experiences and determined methods to implement them in the classroom curriculum. Kenner (2000) described the "literacy worlds" (p. 5) of four children through a diagram. Kenner (2000) documented literacy activities occurring in the home of each of the case studies. Billy, a second language learner from Thailand, enjoyed video and cartoon media in English and recognized environmental and sports media print (Kenner, 2000).

Videos were utilized extensively displaying literacy examples in both languages (Kenner, 2000). Children observed characters in the video to understand how spoken language correlated with written words. Parents were invited to examine videos presented in the English and home languages. *Lion King* (Aller & Minkoff, 1994) narrated in both English and Spanish was viewed so that the children could identify similarities and differences in both languages. Afterwards, students wrote about the film they had seen. Kenner (2000) concluded that the dissonance between the home and school environments dissolved when communication occurred between both parties (Kenner, 2000).

Further, Melton (2001) found that popular culture media was significant for second language learners in developing literacy and social skills. Melton conducted two case studies of kindergarteners, who were learning English as a second language (2001).

Melton (2001) described that second language learners acquired correct English grammar and sentence structure by watching popular culture television programs.

From these case studies, Melton (2001) found that popular culture media was used during the writing process, while also relating to the oral language. The children discussed their writing with peers, which led to increased social relationships. The dialogue focusing on popular culture interests served to initiate and maintain friendships (Melton, 2001).

Students learning a second language, have utilized television as a model when learning how to speak English (Melton, 2001; Orellana, 1994; Rodriguez, 1999; Xu, 1999). Yet, Xu (1999) and Kenner (2000) found a lack of communication between the school and home regarding literacy activities gained from popular culture. In the multilingual nursery school, Kenner (2000) utilized videos to enhance the literacy skills in home languages and English.

Emergent Literacy Intervention Framework

The focus of this quasi-experimental study was centered on the child acquiring the emergent literacy skills of alphabet knowledge and print concepts (see Figure 2.1). The model for the conceptual framework used to describe the process by which the PCEP intervention can be integrated into the students' learning environment to facilitate learning of emergent literacy skills is represented by a child located at the center of an ellipse that is, in turn, situated within a square. The ellipse symbolizes the PCEP surrounding the child and the square contains the learning theories used to explain how

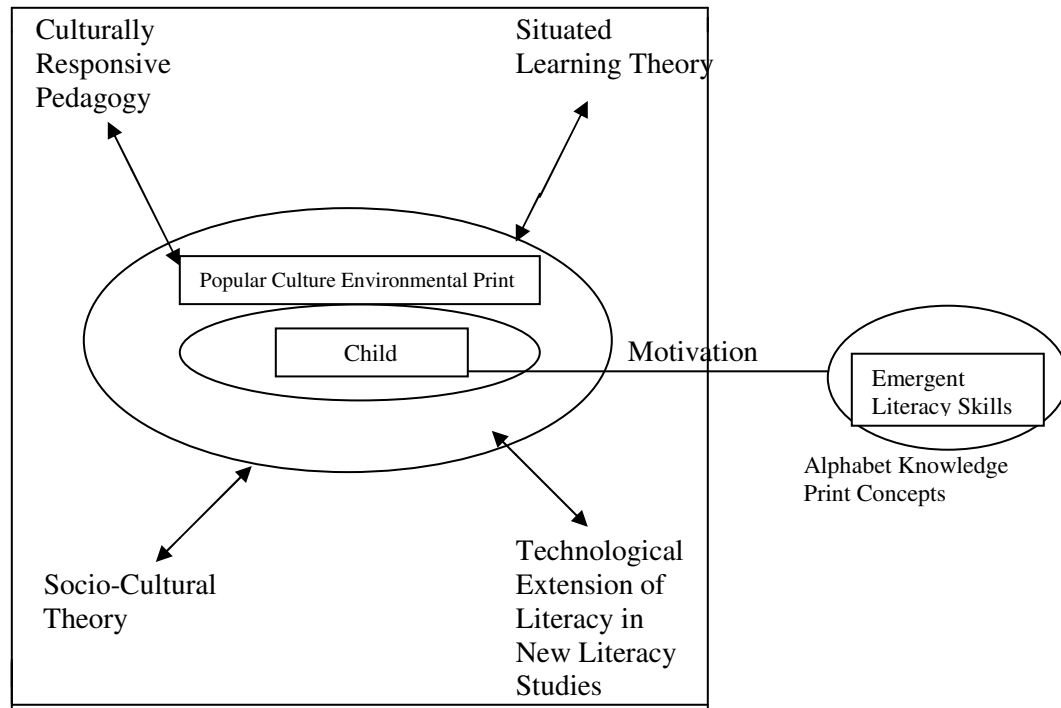


Figure 2.1 **Conceptual Framework of the PCEP Intervention**

the PCEP facilitates the students learning of emergent literacy concepts. The PCEP captures the attention of the child; thus the child becomes motivated to learn emergent literacy concepts. The socio-cultural theory (Vygotsky, 1978; 1987), situated learning (Brown, Collins & Duguid, 1989; Lave & Wenger, 1991; Rogoff, 1990), culturally responsive pedagogy (Gay, 2000; Ladson-Billings, 1994; Pang, 2001), and technological extension of literacy in new literacy studies (Gee, 2003; D. Kaplan, personal communication, October 13, 2006) have interactive and reciprocal relationships with the child during the learning process. The line drawn from the child and PCEP ellipse connects the child to the emergent literacy skills of alphabet knowledge and print

concepts. Due to his or her interests in PCEP, the child is motivated to acquire emergent literacy skills. Therefore, motivation is the vehicle, which encourages the learning of emergent literacy skills (see Figure 2.1). The following paragraphs explain how the learning theories and concepts were included throughout the PCEP intervention.

Socio-cultural Theory

Vygotsky's socio-cultural theory explained that children acquired knowledge through social interaction (1978). The socio-cultural theory of Vygotsky (1978) supported the use of communication with peers or adults to develop knowledge. Fountas and Pinnell (1996) and Morrow (1988) identified a literacy center as an activity in which the children were socially interactive and independent. During literacy center activities, children dialogue, problem-solve and discover new knowledge.

The socio-cultural theory (Vygotsky, 1978) also included the process of the child learning concepts through the interaction of a more capable peer or adult. This process was termed as the Zone of Proximal Development (ZPD) (Vygotsky, 1978). Holdaway (1979) and Ashton-Warner (1963) illustrated the interaction of a more capable adult through a Language Experience Approach (LEA). Holdaway (1979) and Ashton-Warner (1963) wrote the exact words a child spoke, while the child observed the adult completing the writing process. Additionally, Holdaway (1979) scaffolded the learning in the ZPD through the cloze technique. Cloze techniques involved the child completing a sentence begun by the teacher or completing a sentence with words located within the sentence (Holdaway, 1979).

Situated Learning Theory

Situated learning theory utilized the prior knowledge from the learners' experiences to comprehend new information presented (Lave & Wenger, 1991). According to Lave and Wenger (1991), experiences and their contexts are the basis for the knowledge that a learner brings to a situation. The community of practice referred to by Lave and Wenger (1991) explained that certain beliefs, rules or behaviors were acquired through social interaction. In the beginning of the learning process, novices begin on the periphery of the learning community. As their skills become more proficient, the novice moves toward the center where they gradually develop into experts, who have gained an understanding of the beliefs and practices of the learning community.

Technological Extension of Literacy in New Literacy Studies

(D. Kaplan, personal communication October 13, 2006)

Technological extension of new literacy studies were an additional component of the intervention framework built on Vygotsky's concepts and on situated learning (Lave & Wenger, 1991). These studies on the socio-cultural aspect of reading focus on how it applied to new media. Gee (2003) defined literacy in the twenty-first century as going beyond the page and being "composed of visual images, graphs, and diagrams and on the screen rather than on the page" (p. 13). Gee explained that "reading and writing only make sense when studied in the context of social and cultural practices of which they are a part" (Gee, 2000). Researchers view literacy today as consisting of various technologies that encompass the world (Jones-Diaz, Arthur, & Beecher, 2000).

The new literacy studies of Gee (2000) focused on techniques in which literacy has been implemented using the technology of the twenty-first century. In the past, environmental print was identified as print found on toothpaste tubes, cereal boxes, candy and other products found in the home and community (Goodman, 1984; Purcell-Gates, 1996). Gee (2000) reported that print read today includes the visual and multi-modal print found on computers, television and videos. Gee (2003) researched the use of video games and their role in situated learning. He surmised that these games taught all ages of children to “probe, hypothesize, reprobe and rethink” (Gee, 2003, p. 96) as they played the game. The visual print children are reading on computers, television and videos includes the names and programs featuring popular culture characters (Marsh, 2004).

Further, the character’s names and television and video programs have been found on other children-related products. According to Marsh, popular culture names have been found on toys, books, clothing, bedding, backpacks, hats, shoes and other paraphernalia (2003b). The mass marketing of popular culture characters from television and video has bombarded stores and subsequently children’s homes (Marsh, 1999a, 2003a, 2003b, 2004).

Culturally Responsive Pedagogy

The fourth corner of the conceptual diagram, Culturally Responsive Pedagogy (Gay, 2000), was described by Gay (2000) “as called by many names, including culturally relevant, sensitive, centered, congruent, reflective, mediated, contextualized,

synchronized and responsive” (p. 29). The following paragraphs explain the views of various scholars within Culturally Responsive Pedagogy.

Culturally Responsive Teaching

Gay (2000) incorporates the culture of the child through culturally responsive teaching strategies to assist in teaching curricula. In this perspective, “the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse” (Gay, 2000, p. 28) children are validated. The primary objective of this concept is to have the children identify and learn through their culture; thus resulting in succeeding academically and becoming effective members of society. In addition, culturally, linguistically, ethnically, and economically diverse (CLEED) (P. Larke, personal communication, September 2002) children had participated in more academic dialogue and were more motivated to learn after experiencing culturally relevant teaching strategies (Gay, 2000). Gay (2000) describes the role of teachers as “cultural organizers, cultural mediators and orchestrators of social contexts for learning” (p. 42).

Culturally Relevant Teaching

Ladson-Billings (1994) described a culturally relevant method for teaching literacy to consist of six descriptors; students evolved as the “intellectual leaders, students were apprenticed in a learning community, students became part of the ‘official’ curriculum, students participated in a broad conception of literacy, students engaged in a collective struggle against the status quo, and teachers were cognizant of themselves as political beings” (Ladson-Billings, 1994, p. 117-118). Irvine and Armento (2001) described culturally relevant teaching through specific lesson plans that incorporated

cultural beliefs into mandated objectives.

Caring-centered Reflective Approach

Pang (2001) identified the caring centered reflective approach as “a message of self and community empowerment” (p. 53). Pang (2001) described this framework as one of many relationships between the children and staff which consists of a deep sense of commitment intertwined with a learning process that reflects the sociocultural context. Pang (2001) described caring teachers as valuing the home community (Pang, 2001). Relating the children’s home experiences assists children in connecting linguistically and culturally to the school environment (Pang, 2001). The caring curriculum advocated by Pang (2001) has been described as “to know, to act and to respond” (P. Larke, personal communication, November 9, 2002).

In addition, understanding the home culture was important in the research of Shirley Brice Heath (1983). Heath (1983) provided detailed descriptions of the reading and writing in the Appalachian communities of Roadville and Trackton. Both communities understood concepts of print according to their socio-cultural perspective of their daily lives (Heath, 1983).

Motivation

A key concept in learning and the transfer of the learning is motivation (Bransford et al., 2000). Keller (1987) explained motivation through his model of Attention, Relevance, Confidence and Satisfaction (ARCS). Each of Keller’s components was related to the other (1987). Attention to the concepts being learned

must first be gained through their relevance. Relevance occurs as concepts relate to the learners' prior knowledge. The combination of attention and relevance assists in developing confidence. Confidence is defined as the belief in oneself to be able to complete a skill. Confidence, attention and relevance generate the outcome of satisfaction. However, if attention is lost, the motivation model disappears and the learning process ceases (Keller, 1987).

Additionally, the ARCS model was identified in Worthy et al. (1999). Worthy et al. concluded that to capture children's attention, reading preferences should be addressed. This concept broadened the definition of school literacy to include materials read outside of class (Worthy et al., 1999). Carter found that the children who read their choice of materials outside of class improved their reading scores over a three year period (1990). Furthermore, teachers in Carter's study encouraged recreational reading through books of interest to their children. Carter (1990) found that when the purpose for reading was for "fun" (p. 100), then reading became the motivation, rather than the external rewards (Carter, 1990).

Summary

This chapter has presented a review of the literature validating the significance of using *popular culture environmental print* in the schools. Traditional forms of environmental print was identified to assist beginning literacy skills (Goodman, 1984; Lomax & McGee, 1987; Reutzler et al., 2003). The increase in the media was discussed through the research of Gentile and Walsh (2002), Rideout et al. (2003), Woodward & Gridina (2000). Within the discussion of the increase in the media, literature regarding

the increase in popular culture characters from television, video and computers was reviewed (Marsh, 1999b, 2003a). Studies identified how popular culture is used in the education to encourage students to read (Marsh, 2000b; Marsh & Millard, 2001; Millard, 2003; Norton, 2003), enhance critical thinking skills (Alvermann et al., 1999), augment the affective domain (Hall & Thompson, 2004; Xu et al., 2005), develop early literacy skills (Alvermann et al., 1999; Dyson, 1999, 2001, 2003a; Marsh, 1999a; Xu et al., 2005) and improve the vocabulary of English as a second language students (Orellana, 1994; Rodriguez, 1999; Xu, 1999). The following chapter explains how *popular culture environmental print* was implemented in the prekindergarten literacy curriculum in a high-poverty elementary school of an urban school district in the southwestern United States.

CHAPTER III

METHODOLOGY

This quasi-experimental study (Gall, Borg, & Gall, 1996) of an intervention of popular culture environmental print (PCEP) focused on increasing the alphabet knowledge and print concepts of prekindergarten children. The children attended school in an urban district in the southwestern United States. The National Center for Educational Statistics (NCES) reported this southwestern state had 15 school districts among the 100 largest in the nation (2001). Specifically, the urban school district in which this study was conducted was within the 500 largest school districts in the nation (NCES 2004). Further, the diverse population of this urban school district would be similar to school districts of similar size in the southwestern United States.

Demographics of the Study

This quasi-experimental study was conducted in an urban school district that began as a rural school district in the 1960s with 432 children (General Information, 2004). This district has presently evolved to serving 18,000 children representing diverse ethnicities and cultures. The structure of this urban school district consists of seven secondary and 14 elementary campuses within a 56,000 square mile area (General Information, 2004). The district student population is composed of 43.8 percent Hispanic American, 27.1 percent European American, 26.2 percent African American, 2.6 percent Asian and 0.3 percent Native American, (Schools and Enrollment, 2004). Further, 53.2 percent of the district's student population receives federally subsidized lunches (Schools and Enrollment, 2004) (see Table 3.1).

Table 3.1
Ethnicity of an Urban School District Population

Ethnicity	Percentage
Hispanic American	43.8
European American	27.1
African American	26.2
Asian American	2.6
Native American	0.3

Intervention

Recently, the need for early intervention with children from high-poverty homes has attracted national attention due to the No Child Left Behind Act (NCLB) (USDOE, 2001a). Denton and West (2002) found that children from high-poverty homes scored five to seven points below the national average when tested on emergent literacy skills upon entering kindergarten. By the fourth grade, 32 percent of children from high-poverty homes scored below grade level in reading (USDOE, 2001a). To develop reading skills by the fourth grade, instruction in emergent literacy has been recommended to start during the early years of a child's life (Halle, et al., 2003; Morrow, 2000).

Researchers have identified early reading skills as alphabet knowledge, print concepts, phonemic awareness and oral language (Adams, 1996; Au, 1993; Chall, 1967; Clay, 2002a; Farran & Son-Yarbrough, 2001; Fernandez-Fein & Baker, 1997; Fountas &

Pinnell, 1996; Goodman, 1984; Holdaway, 1979; International Reading Association & National Association of Early Childhood, 1998; Kuby & Aldridge, 1997; Morrow, 2000; Neuman & Celano, 2001; Neuman & Roskos, 1993; Scanlon & Vellutino, 1996; Smith, 1997; Snow et al., 1998; Vukelich, 1994; Washington & Craig, 1994; Whitehurst, Zevenbergen, Crone, Schultz, Velting, & Fischel, 1999). This study focused on developing the skills of alphabet knowledge and print concepts to assist prekindergarten children in acquiring emergent literacy skills. This PCEP intervention was designed to enhance alphabet knowledge and print concepts.

Program Objectives

The goals of the prekindergarten literacy intervention were:

1. To identify specific popular culture characters of interest to the prekindergarten children for the purpose of teaching alphabet knowledge and print concepts;
2. To increase the recognition of capital alphabet letters by prekindergarten children;
3. To increase print concept skills for prekindergarten children and
4. To begin the intervention at a time when alphabet knowledge and print concepts were beginning to be taught to prekindergarten children.

The overall objective of this nine-week emergent literacy intervention was to use PCEP in combination with researched teaching strategies to increase alphabet knowledge and print concepts of prekindergarten children. The explicit instruction of alphabet knowledge (Chall, 1967; Scanlon & Vellutino, 1996) and print concepts (Kuby

& Aldridge, 1997, 2004; Reutzel et al., 2003) through learner-centered strategies (Neuman & Roskos, 1993; Vukelich, 1994) was used as methods of teaching in the study. Specifically, the use of large print, language experience approach (LEA) and shared reading was drawn from the work of Holdway (1979). The intervention began in September and concluded nine weeks later in November, 2005.

Procedure of Popular Culture Environmental Print Intervention

In this quasi-experimental study, PCEP was used as the catalyst to teach alphabet knowledge and print concepts. The PCEP intervention occurred during the classroom time that involved literacy centers, shared reading and shared writing. The following paragraphs explain how PCEP was included within the intervention.

To determine the specific PCEP relevant to the experimental school, the researcher used three methods. First, the PCEP survey (see Appendix A) was sent home during the first weeks of school. According to Ladson-Billings (1994), additional strategies should be incorporated into daily lessons so that all children experience success. One method included within the intervention was having parents identify the PCEP characters or words present in their homes through a home survey. The results of the survey were tallied and compared with a list previously made from the pilot study.

To account for unreturned surveys and assist the classroom teacher in understanding PCEP of interest to their children, the second method for understanding the PCEP present in the home was a weekly Show and Tell Activity. The Show and Tell activity scaffolded the learning contextually to include the student's sociocultural background (Ladson-Billings, 1994). This activity utilized the PCEP found clothing,

books, toys, snacks and bedding for children to find at home and read at school. Marsh (2003b) found that popular culture names were present on numerous products related to children. Additionally, the researcher purchased toys, books and snack foods as examples of authentic print and logos imprinted with the characters' name for children without Show and Tell to use.

Communication between the classroom teachers of the experimental group and the researcher was the third component employed to understand the PCEP importance found in the home. A book of popular culture print and pictures was available for the teachers during the first week of the intervention to determine characters and programs that the children could identify. Further, this book identified for the teachers the characters and programs that could be used as examples when teaching alphabet knowledge and print concepts. Through periodic meetings, the experimental group's teachers shared additional characters and activities of interest to the prekindergarten children to include within the PCEP intervention.

Examples of PCEP were necessary to implement the intervention. The literacy examples for this study were examples that the children came into contact while watching the technology available in the home (Gee, 2000). When gathering examples of the visual print for the intervention, the researcher first looked for original color and font of the popular culture character and its corresponding logo. The researcher purchased additional books and other supplies for use during the intervention through monies attained from the Elizabeth Breathewaite Grant from the Association of Childhood Educators International (ACEI). Inexpensive popular culture items such as

gift wrap, party napkins, party plates, streamers, snacks or books that illustrated the authentic print and logo supplied the popular culture logo and corresponding word for use during the intervention. During the nine weeks, new materials were added to correlate with the personal interests of the children.

Further, examples of PCEP were also found at Internet sites. The DLTK's Printable Sites for Kids (DLTK's Printable Crafts For Kids, 2005) contains cartoon characters and corresponding activities. The *Sesame Street* website (Sesame Street, 2004) provides examples of characters that were utilized in the intervention. On websites that were posted as trademarked, the character or names were unavailable for the intervention. If the trademark character was of interest to the children in the experimental group, the researcher either wrote the name of the character or purchased materials such as books or party goods as examples of the original print.

The following paragraphs outline the dimensions of PCEP. The dimensions involved the introduction of the PCEP objective each week. While alphabet knowledge and print concepts are listed separately within the outlined curriculum, they were integrated daily within the emergent literacy curriculum. Additionally, specific strategies and a timeline employed to increase the skills of teaching alphabet knowledge and print concepts have been described in the following paragraphs.

This nine-week intervention began in September and concluded in November. The PCEP concepts were introduced through the following four dimensions: a) introducing PCEP examples written in the original font and color, b) identifying PCEP examples printed in black and white, c) using PCEP examples after separating the logo

from the print and d) the teacher or child writing PCEP examples (Goodman, 1986; Elster, 1994). Goodman (1986) and Elster (1994) found that children first focused on the color and font of the word, rather than the letters in the word. Reutzel et al. (2003) utilized this format when observing children reading environmental print.

Week One of Popular Culture Environmental Print Intervention

Alphabet Knowledge. During week one, the PCEP examples were presented in the original font and color. The alphabet knowledge (AK) objectives consisted of identifying a capital letter; one letter and the first letter of a word (see Table 3.2). During the training of the experimental group's teachers, the researcher explained the conceptual framework with the child as the center of the intervention's curriculum. Teachers were to choose a PCEP character common to the children in their classes and teach the beginning letter of the PCEP character's name. Teachers used professional discretion to determine which letter to identify during shared reading. During small group time, each child chose PCEP examples familiar to them and identified the capital letter for that particular PCEP character. In small group time, the teachers acted as the expert and the children as apprentices (Lave & Wenger, 1991). The teachers supported the learning through explicit teaching using authentic PCEP materials (Brown et al., 1989). These apprentices interacted and learned from each other as the teacher's support faded. Specifically, this process occurred during the PCEP intervention as the children became more proficient when completing folder games independently or when identifying popular culture words and letters in the writing and alphabet centers.

Alphabet books were read to introduce the AK objectives. Activities for AK included creating class books using the cloze technique (Taylor, 1953). The children completed the sentence by attaching foam letters and PCEP examples to complete the blank in the sentence. The AK objective of locating the first letter in a word was taught through using colors. Green represented the first letter, yellow the middle letters and red as the end of the word. Children wrote the first letter of the character's name in a green marker during week one.

Print Concepts. Print concept (PC) objectives for week one included identifying the front of the book, the title of the book, the role of the title and where to begin reading the print (see Table 3.2). The PCEP focus was to use the original font and color. Print concepts were taught every day; however, on two days of the week explicit instructions were given to master the print concept objectives. Reutzel et al. (2003) concluded that environmental print fails to persuade children to use the letters to read the print. Instead, teachers should use environmental print as an example to help analyze letter and sound relationships (Reutzel et al., 2003).

During week one, print objectives were taught using teacher and researcher prepared class books (Holdaway, 1979). Big books have an enlarged font and spacing that allows young children to focus on the letters in each word. The researcher created a big book for the teacher's use of introducing the PCEP characters and to determine which characters were recognized by the children. On Monday, the children created a class book using PCEP logos and words they personally recognized.

Table 3.2
Objectives of the PCEP Intervention

Objectives	Weeks of the Intervention								
	1	2	3	4	5	6	7	8	9
1.Front of book	I	*	*	*	*	*	*	*	*
2.Title of book	I	*	*	*	*	*	*	*	*
3.Role of title	I	*	*	*	*	*	*	*	*
4.Print not pictures	I	*	*	*	*	*	*	*	*
5.Directionality on one page		I	*	*	*	*	*	*	*
6.Contextualized Print				I	*	*	*	*	*
7.Directionality on two pages			I	*	*	*	*	*	*
8.Directionality top					I	*	*	*	*
9.Directionality bottom					I	*	*	*	*
10.Print Function:				I	*	*	*	*	*
11.One letter	I	*	*	*	*	*	*	*	*
12.Capital letter	I	*	*	*	*	*	*	*	*
13.First letter	I	*	*	*	*	*	*	*	*
14.Print Function: Where are the words				I	*	*	*	*	*

I= Concept Introduced

* = Concept Maintained

This class book was utilized on Thursday as a shared reading activity (Holdaway, 1979) and to introduce separating the print from the picture (Reutzel et al., 2003).

On Friday, print concepts were taught using a Show and Tell Activity in which the children brought an object from home with a PCEP word they could read to the class. Any child needing an example to read could use PCEP examples found in the classroom. The children practiced reading the PCEP words from their objects and again from print in the room. Further, this activity provided additional PCEP examples for the teacher or researcher to include within the PCEP curriculum.

Week Two Popular Culture Environmental Print Intervention

Alphabet Knowledge. The PCEP intervention objectives spiraled each week. Objectives from the previous week were reviewed and new objectives were added. In the AK objectives, teachers in the experimental group reviewed letters previously discussed and added a new capital letter each week. Teachers chose the letters according to the PCEP characters of the children's interest or television and video shows that were commonly watched by their classmates. AK objectives were taught using alphabet books, cloze sentences (Taylor, 1953), foam letters, alphabet puzzles and class alphabet books (Holdaway, 1979) through the literacy centers. Literacy centers (Fountas & Pinnell, 1996; Morrow, 1988) reflected the socio-cultural theory that framed the PCEP intervention (Vygotsky, 1978). Specifically, the children interacted with each other while writing names of the characters, forming the beginning letters of the characters with play-dough, playing with alphabet letters or stamps and PCEP puzzles. Additionally, AK objectives were often integrated within the instruction of print concepts.

This week, the AK objectives were taught using class books made from paper

bags. Students glued the PCEP word and picture horizontally on the length of the bag. The bottom of the bag, which covered up a portion of the word and picture, was where the children stamped the alphabet letter that corresponded to the word and picture.

Print Concepts. Print concepts previously taught were also reviewed each week, while new skills were added. This week, the new PC objectives were reading and pointing from left to right. Children continued to separate the print from the picture. Children identified where to begin reading their name and the name of a PCEP character. After the first letter was located, children were taught to underline from left to right when reading. This process of pointing left to right and reading their example, expanded the children's knowledge of reading clues (see Table 3.2, Objective 4 and 5).

Moreover, masking was a strategy used to help the children focus on left to right directionality and where to read the print, rather than utilizing the picture (Holdaway, 1979). Masking is a technique that "highlights a word or letter that we want to talk about" (Holdaway, 1979). Using masking to teach AK, letters were covered allowing children to focus on one single letter. This week the mask covered up extraneous letters and the picture; thus allowing children to separate the print from the picture (see Appendix H). For example, the children separated the picture of Nemo from the word *Nemo* (Viacom International, 2004) (see Appendix H).

During the Show and Tell Activity on Friday, a feather pointer was used to read the word that represented the object brought from home. Further, the children completed a cloze sentence (Taylor, 1953) about a PCEP character they liked from the show and tell presentation. Teachers modeled pointing from left to right and had the children also

point from left to right. The completed cloze sentences were kept for a class book (Holdaway, 1979). Because each class book needed a title for the cover of the book, the children brainstormed a name for the cover. This activity taught the definition of a title and how the words in a title corresponded to the pictures.

Week Three Popular Culture Environmental Print Intervention

Alphabet Knowledge. During week three, the PCEP dimension changed from using colored PCEP examples to black and white copies of the PCEP characters and programs. Previous letters learned were reviewed and new letters were added to the instruction. The children identified the first letter of their names and also a PCEP character's name which began with the same first letter. For example, a student named Debbie might write, *D* my name is *Debbie* and I like *Dora*; thus identifying the first letter of the child's name and the first letter of a PCEP character that began with the same letter.

An alphabet word wall, (Fountas & Pinnell, 1996; Prior & Gerard, 2004) entitled *Cartoon Word Wall*, was displayed to identify the first letter of the characters' name. For example, a picture of the character *Dora* and the word for *Dora* (Viacom International, 2004) were listed under the letter /D/. Children chose the characters posted on the Cartoon Word Wall and assisted in writing the letter and names of the characters. According to Fountas and Pinnell, (1996) the word wall contains useful words for children to write independently at their literacy center. At the prekindergarten level, the word wall served an additional purpose of displaying familiar print for children to read independently during center time (Fountas & Pinnell, 1996).

Print Concepts. Focusing on the black and white print and logo was the dimension taught by the PCEP Intervention during the third week. According to Goodman (1986), children first read environmental print published in color using the colors and logo to assist them in identifying the print. Next, they begin to recognize black and white print and logos (Reutzel et al. 2003). The children read PCEP words and separated the picture from the logo (Appendix H). Next, the children sorted them using a graphic organizer. Further, the children sorted PCEP words printed in black and white on a chart entitled *Words I Know*. The Children then matched the PCEP in a colored font to the same PCEP written in black and white.

Print concepts from previous weeks were reviewed and the new objective focusing on directionality was introduced. In the objective of directionality, the concept of reading from left to right was re-examined and reading the left page before the right was introduced. According to Bredekamp and Copple (1997), letter reversals and difficulty with directionality concepts were common among four-year-old children. To assist in achieving this objective, the intervention incorporated pointers and color-coded devices to identify left and right. Green signified the left side of the page and red identified the right side of the page (K. McIntyre, personal communication, September, 1996). Pointers were used by the teachers as they read stories, poems or sentences. Clay (2002a) advocated pointing to develop the reading skill of left to right, top to bottom and a one-to-one relationship between the written and spoken word.

To identify reading the left page before the right (see Table 3.2, Objective 7), an additional teaching aid was created. Green and red hands were each glued to a stick with

a clothespin attached to the back of each hand. The green hand was labeled left for the children to understand where to begin reading. The red hand was labeled right for the children to stop at the end of the line or page. This technique of green/left and red/right was applied in the children's shared reading experiences and also shared writing experiences (K. McIntyre, personal communication, September, 1996). Teachers used green and red stamp pads to reinforce the first letter of a word and to identify the left and right sides of the pages.

Kinesthetic and musical learning styles were also addressed during the intervention's third week. Each of the songs taught identifying the left and right hands while the children moved to music. Specifically, the children moved to the songs of Dr. Jean Feldman (2004). Gardner (1997) described bodily-kinesthetic intelligence as solving problems through the use of body movements. These movement activities were used to enhance the kinesthetic modality of young children (Gardner, 1997).

Week Four Popular Culture Environmental Print Intervention

Alphabet Knowledge. During week four, the alphabet knowledge PCEP intervention continued reviewing previous letters introduced while also adding a new letter. PCEP examples were displayed in black and white font. Identifying the first letter, a letter and a capital letter were the alphabet knowledge objectives taught in conjunction with print concepts. Alphabet letters were also reviewed during each print concept activity. Clay (2002b) noted that learning letters within a text provided a basis for understanding graphemes.

According to Vygotsky (1978), play, involving the use of three-dimensional objects, helped the children to understand the meaning of concepts. For example, Vygotsky explained how pretending a stick was a horse could “become a pivot for detaching the meaning of a horse from a real horse” (Vygotsky, 1978, p. 100). Vygotsky (1978) stated that children needed objects for the meaning to develop. Therefore, during the fourth week of the intervention, objects relating to many of the popular culture characters were available for the children to use. In addition, the children matched the colored PCEP examples to the black and white examples. Then the children played with an object that corresponded to the PCEP logos. For example, if the child matched the colored logo of *Care Bear* to the black and white Care Bear logo, then the child played with the Care Bear toy.

During this week, children also began using the mail center to identify the beginning letters of PCEP characters. Neuman and Roskos (1993) asked children to write letters in a mail center to stimulate literacy. Prior and Gerard (2004) suggested having props for a mail center such as a mail box, stationary, and stamps. Rather than send mail to each other, the children created mail for the popular culture characters in the mail center. A sack with the initial letter of the PCEP character’s name and logo was created for each popular culture character (see Appendix I). This served as the character’s mailbox. Children drew a picture of the PCEP character and either wrote a note to the character or had an adult complete the note. Next, the children identified the initial letter for their character’s name and placed the letter in the character’s mail sack.

Later, the teacher read the mail that had been sent to the characters; thereby reviewing the initial letters.

Print Concepts. During week four, the previous print concept objectives were reviewed. Further, the objectives of directionality on two pages and contextualized print were introduced to the instruction. To identify reading the left page before right (see Figure 3.2, Objective 7), the green and red teaching aids from week three were again used. This time, instead of the teacher manipulating the teaching aid, the children used the teaching aid when reading the left page before the right and then reading each line from left to right.

Contextualized print was introduced through an activity after the children participated in Show and Tell. Instead of bringing a toy from home, the children brought an empty video box of a familiar PCEP character. After sharing the title of their favorite video, the children illustrated themselves watching a video they liked.

A voice bubble was then added to their illustrations. The voice bubble was taught as print representing words stated by the children. For example, children who liked a *Dora* video (Viacom International, 2004), illustrated themselves watching it. Next, the children added the words “I like Dora” to their illustration (see Appendix J). The teacher also modeled quotation marks. However, the words found in the voice bubble representing the child’s words, was the objective of the lesson.

Week Five Popular Culture Environmental Print Intervention

Alphabet Knowledge. The teacher continued to review previous letters and added new letters in week five of the intervention. Children matched the PCEP logo or word to a beginning letter of a folder game (see Appendix K). Further, simple alphabet puzzles were purchased to assist the children in identifying letters. Words and the corresponding beginning letter were added to the Cartoon Word Wall. Mail sacks with new initial letters matching PCEP characters and *Nickelodeon* (Viacom International, 2004) notepads were added to the mail center; thus enabling the children to continue to write to a PCEP character. When the children completed the mail activity, they located the beginning letter of their PCEP character on the character's mailbox (see Appendix I).

Print Concepts. Previous print concept objectives were also reviewed during week five. Directionality from top to bottom and the function of print were introduced. The function of print involved locating the words stated by the characters within voice bubbles. Along with these objectives, the children continued to separate the PCEP character's picture from the logo. According to Reutzler et al. (2003), children identified the logo initially to help read the print. During week five, the children separated the logo from the print and used both to create a book made from a paper bag (see Appendix L). This lesson included reviewing AK objectives, while teaching PC objectives concurrently. The children found an example of PCEP in which they could identify the beginning letter. Then, the children separated the print from the picture by cutting it apart. The alphabet letter was stamped on the bottom of the sack. Under the bottom flap, the picture was glued to assist the children in recalling the word. For example, the

picture of Goofy was glued under the bottom flap of a paper bag; /G/ was stamped on the bottom of the bag and the word Goofy was glued horizontally on the length of the bag (see Appendix L). Therefore, the student linked /G/ to the PCEP character, Goofy, and read the word, Goofy.

To teach directionality of reading from the top to the bottom of a page, the intervention utilized repetitive children's literature books in which the illustrated text began at the top of the page and finished at the bottom of the page. As the children read the literature selection *I Went Walking* by Sue Williams (1996), they identified the line to read first and last. The masking technique was also utilized to assist the children in locating these lines. A devise was created that allowed the student to view one line at a time, thus the children identified which line to read first and last.

In the writing center, the children created a new book using the repetitive text from *I Went Walking* (Williams, 1996). The new book was entitled *I Was Reading*. The children identified a PCEP character observed while they were reading. After completing a cloze sentence (Taylor, 1953), the children wrote words the character said in a voice bubble. This activity reinforced the objective of contextualized print described above.

Week Six Popular Culture Environmental Print Intervention

Alphabet Knowledge. During week six, the teacher continued to review previous letters and introduce new letters to the children. The children had previously read the Cartoon Word Wall, but during this week the children took turns as each child pretended to be a television host reading the Cartoon Word Wall using a pretend microphone. Two

new activities were introduced during this week to assist the children in alphabet knowledge. Modeling dough cards were developed by the researcher. Each card was designed with either the beginning capital letter of the PCEP characters' name or the character's whole name for the child to form the letters with modeling dough. A picture of the character was also printed on the card so that the child could link the beginning capital letter with the name of the PCEP character. For example, a capital /A/ was printed on the card so that the child could connect the letter /A/ with the word *Arthur* (Public Broadcasting Service, 2004) (see Appendix M). Additionally, the word *Dora* was written for the children to recall the letters in *Dora's* name (Viacom International, 2004) (see Appendix M). Along with these two activities, additional folder games were introduced in which the children matched the PCEP logo or word to a beginning letter of a folder game (see Appendix K). For example, the letter /C/ was matched to a picture of *Cinderella* (Sartama, 2005)

Print Concepts. For the duration of the intervention, the teachers reviewed print concept objectives that had been taught in earlier weeks. Additional activities were developed concentrating on the most recent, yet most difficult, objectives to achieve. Top to bottom directionality was reviewed using the cloze technique and the literature selection, *Brown Bear, Brown Bear* by Bill Martin, Jr. (1967) (see Appendix N). A class book created by the children was adapted from Martin's (1967) original work. This book used a child's name rather than words "brown bear" (Martin, 1967, pg. 1). For example, rather than "Brown bear, brown bear, what do you see?" (Martin, 1967 pg. 1),

the cloze sentence would have the child's name inserted, e. g. "Debbie, Debbie, what do you see?"

Additionally, instead of an animal looking at the bear, the second page of the book had a PCEP character looking at the student (see Appendix N). In conjunction with reading from top to bottom, each child had two pages he or she could read about their favorite PCEP character. After assembling each child's pages into a class book, the children read their pages to reinforce reading the left page before the right.

The teachers also read a familiar children's rhyme *Who Took The Cookie From The Cookie Jar?* (Carter, 2002). A dialogue between two characters about a missing cookie occurred in the poem. In developing print concepts, this dialogue was recreated using the child's choice of a PCEP character engaged in the same type of dialogue. The children located where to begin reading, read using left to right directionality and top to bottom directionality on the page (see Appendix O).

During week six, a new class poem was created from *Who Took the Cookie from the Cookie Jar?* (Carter, 2002). This time the dialogue was written in voice bubbles and the children identified who said the words. For example, in Appendix P, Zach chose himself to say "Says who?" and the PCEP character *Aladdin*, to say, "I do, that's who" (see Appendix P). By locating the words in the voice bubble, the children recognized the context and function of the print.

Week Seven of the Popular Culture Environmental Print Intervention

Alphabet Knowledge. The focus of the PCEP in weeks seven through nine was to recognize the word as written by either the teacher or the child. Letters were reviewed

through the Cartoon Word Wall, alphabet books and the PCEP objects. As the teachers read class created alphabet books, the children recalled PCEP characters' names that began with the same letter. For example, using a class book page with the letter /A/, the student connected the PCEP character, *Arthur*, (Public Broadcasting Service, 2004) with the letter /A/.

Further, alphabet letters were reviewed by using an activity in which the child composed a note to sort for the PCEP character's mail sack. The mail sent to the PCEP characters contained dialogue bubbles. The children wrote the character's name on the address label and then dictated words for the teacher to write in a dialogue bubble that corresponded to their illustration. Next, the children sorted the mail by matching the beginning letter of the character's name to the character's picture or word written on the displayed mail sack.

Bodily-kinesthetic activities were included after Show and Tell (Gardner, 1997). Using an alphabet mat decorated with capital letters, children tossed a bean bag on a capital letter and then identified the name of the letter. Next, the children named a PCEP character whose name began with the same letter. For example, the bean bag was tossed on the letter /N/, the child stated the name of the letter and *Nemo* (Satarma, 2005) the character's name that began with the letter /N/.

Print Concepts. All the print concepts were reviewed throughout the week; however, the main objectives were to identify contextualized print and directionality of reading print from left to right and top to bottom. The poem, *Who Took the Cookie from the Cookie Jar?* (Carter, 2002), was changed to *Who took the Pumpkin from the*

Pumpkin Patch? The children chose a PCEP character whom they thought could have taken the pumpkin from the pumpkin patch and then drew themselves and the PCEP character. Each child wrote a character's name in a voice bubble. The teacher then completed writing the sentence from the poem in voice bubbles. For example, a child, who chose the *Incredibles* (Buena Vista Home Entertainment, 2006) dictated a voice bubble using the words, "Incredibles took the pumpkin from the pumpkin patch". The children then identified the location of the words stated by the *Incredibles* (Buena Vista Home Entertainment, 2006). Additionally, the children read the words back to the teacher from left to right and top to bottom; thus applying print directionality.

Further, directionality was reviewed with a Bingo chart (Prior & Gerard, 2004), which had color-coded squares. The left square was green, the middle square was yellow and the ending square was red. A card with a picture of the PCEP character and name were placed on each square. The children identified the words in each square while reading the cards from left to right and top to bottom.

Directionality was additionally reviewed during small group time with letter cards. The letter cards were printed with the character's picture and their name. The children chose a character cards they could read and reproduced the name of the character with plastic letters (see Appendix Q).

Week Eight of the Popular Culture Environmental Print Intervention

Alphabet Knowledge. Letters were reviewed during small group time, while new ones were introduced using PCEP characters and alphabet books. The children formed letters with Wickie Sticks (Omnivor Inc., 2006) and modeling dough. Wickie Sticks are

bendable, reusable sticks covered in wax. The children also stamped the character's name or the first letter of the character's name at the mail center. Notes written to each character were sorted and then placed in the corresponding mail sack.

Another new activity, used to reinforce alphabet recognition, was singing a song to the tune of BINGO (Disney, 1991). However, the PCEP character's name was spelled instead of BINGO (Disney, 1991). For example, the children and teachers would sing, "There is a cartoon we all know and this is what it is "D-O-R-A, D-O-R-A, D-O R-A, and Dora (Viacom International, 2004) is the name oh!" (Disney, 1991). As the children sang the song, which was also written on chart paper, the teachers or the children would point to the word to further review the concept of left to right and top to bottom directionality.

Print Concepts. All PC objectives were reviewed during the eighth week. The title of a book and the meaning of the title were reviewed using *Teddy Bear, Teddy Bear* (Hubbard, 2005). Each child read and illustrated two pages for the class book. The children wrote their names and the name of a PCEP character in the cloze sentences of each page (Taylor, 1953) (see Appendix R).

The children also reviewed left to right and top to bottom directionality utilizing the nursery rhyme, *Jack Be Nimble* (Denton, 2004). After reading this rhyme with the teacher, the children then changed the rhyme to include a PCEP character's name. For example the children read, "Dora be nimble, Dora be quick, Dora jump over the candlestick" (Viacom International, 2004) (see Appendix S). The children wrote the character's name on the chart paper using the Cartoon Word Wall to recall the letters.

A similar process occurred during small group time as the children changed the poem to fit a PCEP character of their choice.

The children re-examined the function and context of print using voice bubbles. The children determined their favorite PCEP character and words the character said. During Show and Tell, each child's picture was taken with their favorite PCEP character. The words that the children thought their character said were typed in dialogue bubble, while they shared information about their favorite PCEP character. For example, a child who liked Dora described how Dora says, "Viva Fiesta!" in her television program (Viacom International, 2004). The words "says, Viva Fiesta!" were typed in a voice bubble with the teacher leaving space for the children to write the name of their character. The children identified location of the print and the reason the words were in the voice bubble.

Week Nine of the Popular Culture Environmental Print Intervention

Alphabet Knowledge. During the last week of the intervention, all alphabet letters were reviewed through numerous activities. Letters were reviewed as the children created a pointer from Nickelodeon characters (Viacom International, 2004), foam letters and craft sticks. These pointers helped the children point to words while reading. Alphabet letters were identified through bodily-kinesthetic movement using a bean bag and the alphabet mat (Gardner, 1997). The children also participated in dramatic play by using a microphone and pretending to be a television announcer. Each child chose their favorite letter while everyone clapped for that letter.

Print Concepts. All print concept objectives were reviewed interactively during stories and specific activities during the ninth week. Books created during the intervention were read by teachers or students to identify the place to begin reading, underlining from left to right and locating the first letter of words. Directionality continued to be reviewed with the nursery rhyme *Jack Be Nimble* (Denton, 2004). Further, the children determined words their PCEP character would say if the character jumped over the candlestick. This activity assisted the children to in identifying the location of the printed characters' words in the voice bubbles and who spoke the words found in the voice bubbles (see Appendix T).

Population

The target population for this study was public school prekindergarten children attending a half-day prekindergarten urban elementary school in the southwestern United States. Prekindergarten children attending this program qualify for this program through income and language guidelines established by the state education agency (Education Agency, 2005).

Sample

The sample population for this study consisted of children attending half-day prekindergarten on two elementary campuses within an urban school district in the southwestern United States. To qualify for this prekindergarten program, the children at both schools had to be four-years-old and either meet the requirement of federal income guidelines or be eligible for English as a Second Language (ESL) services (B. Carrillo, personal communication, December 9, 2004). The participating children at both schools

met the criteria (B. Carrillo, personal communication, December 9, 2004). Both schools offered morning and afternoon prekindergarten classes. Children at the control school were chosen on a first-come basis for either morning or afternoon prekindergarten (S. Peery, personal communication, December 9, 2004). The experimental school served children residing in the school's attendance area during the afternoon prekindergarten classes. Prekindergarten children from other elementary schools' attendance areas were assigned to the morning class (B. Carrillo, personal communication, December 9, 2004).

The demographics of the school of the control group consisted of 49.3 percent Hispanic American, 39.1 percent African American, 8.3 percent European American, 3.1 percent Asian American and 0.1 percent Native American (Academic Excellence Indicators System [AEIS], 2005; Schools and Enrollment, 2004) (see Table 3.3). Subsidized lunches were provided to 85.2 percent of the students in the control group (AEIS, 2005). The school attended by the experimental group represented 66.7 percent Hispanic American, 19.9 percent African Americans, 10.5 percent European American, 1.9 percent Asian American and 1.0 percent Native American (AEIS, 2005). Further, 84.3 percent of the students' population in the experimental group qualified for subsidized lunch (AEIS, 2005) (see Table 3.3).

Table 3.3
Demographics of Sample: Control and Experimental Schools

Groups	Hispanic American	African American	European American	Asian American	Native American	S. Lunch
Control	49.3%	39.1%	8.3%	3.1%	0.1%	85.2%
Experimental	66.7%	19.9%	10.5%	1.9%	1.0%	84.3%

According to Smith, Kleiner, Parsad, and Farris (2003), the higher the number of ethnically diverse children attending a school, the more likely the school served prekindergarten children. Additionally, as the number of children qualifying for a federally subsidized lunch increased, the number of schools offering prekindergarten programs increased (Smith et al., 2003). Eight hundred thousand children or 35 percent of public schools in the United States provide prekindergarten programs (Smith et al., 2003).

Further, both the control and experimental schools employed certified prekindergarten teachers and instructional aides. The instructional aides completed continuing education hours as required by NCLB (USDOE, 2001b). One teacher at the control school had taught over 10 years, while the other teacher had less than five years experience. The experimental school also employed one teacher with over 10 years experience and another with six years experience.

Sample before the Intervention

In September the sample for the study numbered 62 participants. The control school registered thirty children for their afternoon prekindergarten classes. These

afternoon classes at the control school were composed of 56.7 percent African American, 33.3 percent Hispanic American and 10.0 percent European American. The experimental school began the study with 32 children in the prekindergarten classes. These afternoon classes at the experimental school consisted of 64.5 percent Hispanic Americans, 17.5 percent European Americans, 14.5 percent African Americans and 5.5% Asian Americans (see Table 3.4).

Table 3.4
**Ethnicity of Sample before the Intervention:
Control and Experimental School**

Groups	<i>n</i>	Hispanic American	African American	European American	Asian American
Control	30	56.7%	33.3%	10.0%	0.0%
Experimental	32	64.5%	14.5%	17.5%	5.5%

Sixty-two children began the PCEP intervention and were tested prior to implementation using the alphabet knowledge section of the Observation Survey of Early Literacy Achievement Test (OS) (Clay, 2002b) and the Preschool Word and Print Awareness Assessment (PWPA) (Justice, Bowles, & Skibbe, 2006).

Sample after the Intervention

Some attrition occurred during the intervention. The afternoon prekindergarten classes at the control school decreased from thirty to twenty-six children. The ethnicity at the post-test for the control school included 53.8 percent African American, 34.6 percent Hispanic American, and 11.6 percent European American (see Table 3.5). The

prekindergarten group from the experimental school declined from thirty-two to thirty children with the post-test ethnicity composed of 66.7 percent Hispanic American, 16.6 percent European American, 10.0 percent African American and 6.7 percent Asian American (see Table 3.5). The PWPS (Justice et al., 2006) and the alphabet recognition section of the OS (Clay 2002b) were also administered as the post-test after nine weeks of the PCEP intervention.

Table 3.5
**Ethnicity of Sample after the Intervention:
Control and Experimental School**

Groups	<i>n</i>	Hispanic American	African American	European American	Asian American
Control	26	34.6%	53.8%	11.6%	0.0%
Experimental	30	66.7%	10.0%	16.6%	6.7%

The Preschool Word and Print Awareness Assessment (Justice et al., 2006) and the alphabet recognition section of the Observation Survey (Clay 2002b) were also administered as the post-test after nine weeks of the PCEP intervention. The post-test was administered by the same research examiner.

Instruments

Two instruments were selected to assess the skills of alphabet knowledge and print concepts. Alphabet knowledge was measured utilizing the alphabet recognition subtest of the Observation Survey (OS) (Clay 2002b). The Preschool Word and Print

Awareness Assessment (PWPA) (Justice et al., 2006) evaluated print concepts. Both instruments were chosen to be administered as the pre-test and post-test.

Alphabet Knowledge Instrument

The alphabet subtest of the OS test (Clay, 2002b) was administered for the pre-test and post-test to assess capital letters recognized by the prekindergarten children in the control and experimental groups. The letter identification portion of this test was administered individually to each student. The score sheet tallied only the identified letters. The children were asked to identify only capital letters because the intervention occurred in the fall semester of the prekindergarten year. The children were shown capital letters in manuscript font on index cards (Clay, 2002a). The letters “I” and “J” were written with bars across the top. This font was also used when the teacher wrote capital letters during the PCEP intervention. The amount of time to administer the test varied with the child; however, each child was tested in approximately ten minutes. The children could score a total of 26 points by identifying all the capital letters (see Appendix E).

Print Concepts Instrument

The PWPA instrument (Justice et al., 2006) was selected because the instrument focused on the literacy skills children learn before they could read. Previously, researchers have administered the Concepts About Print (CAP) portion of the OS (Clay, 2002b). However, that assessment was designed for children who were reading. Rather than focus on punctuation or reading words, the PWPA focused on pre-reading competencies (Justice et al., 2006), such as focusing on the print rather than the picture,

directionality, the function of print, the context of the print, the purpose of the title and the use of the pictures when reading (see Appendix F).

The PWPA utilized a shared reading format integrating a literature selection (Justice et al., 2006) entitled, *Nine Ducks Nine* (Hayes, 1990). Testing followed a similar procedure as the CAP test. Children were asked to show the research examiner pre-reading objectives as the book was read to each of the children. For example, during the pre-test and post-test, the research examiner asked the child to show them the front of the book and the name of the book as well as other questions about print concepts (see Appendix F). Points were awarded to the child when they correctly responded as determined by the administration instructions (Justice et al., 2006). Responses were awarded one or two points depending on the difficulty of the objective as determined by the PWPA. A total of eighteen points could be earned during the administration of the test (see Appendix F).

Pilot Studies

The pilot study for this intervention involved the PCEP Survey and permission slips. The purpose of the PCEP survey was to determine the type of popular culture print available in the prekindergarten homes of the experimental group. In addition, permission slips, written in both Spanish and English, granting children permission to be a part of the intervention were piloted.

Popular Culture Environmental Print Survey

The PCEP Survey was designed according to Marsh's (2004) survey (see Appendix C); however, the wording and format were changed to meet the needs of this

quasi-experimental study. The purpose of the survey was to understand the PCEP present in the homes of the prekindergarten children participating in the intervention. The pilot study of the PCEP survey was conducted in January 2005. The survey was given to nine parents of prekindergarten children. Half of the parents, who participated in the pilot, were representative of the experimental school's population. The remaining parents were neither representative of the control nor the experimental school's population. However, these were parents of prekindergarten children with whom the researcher was acquainted. This group of parents was sent surveys via email.

The PCEP Survey (see Appendix A) results revealed that a large variety of popular culture characters watched by prekindergarten children from the community of the experimental group. This list of characters assisted the researcher in purchasing examples of PCEP print to begin preparing instructional materials. The PCEP Survey also clarified the wording and the format of the survey.

The Internal Review Board (IRB) at Texas A&M University and the researcher's committee also assisted the researcher in developing the PCEP Survey (see Appendix A). The IRB and the dissertation committee exposed the importance of providing this survey in both English and Spanish. The PCEP Survey was translated in Spanish through the help of bilingual teachers from other urban school districts. The Spanish PCEP Survey was completed by three parents in each room of the experimental school (see Appendix B).

Cover Letter and Consent Forms

The cover letter and consent forms were piloted by a jury of educational experts, who also served on the researcher's committee and committee members of the IRB at Texas A&M University (see Appendix D). Recommendations were made by both groups to clarify the cover letter and consent form. The IRB and the researcher's committee recommended having these forms also written in English and Spanish (see Appendix D). The researcher had bilingual teachers from other urban districts translated the forms. Therefore, both English and Spanish permission forms were utilized for both the experimental and control groups in the fall semester 2005.

Reliability and Validity of the Instruments

Alphabet Knowledge Subtest of the Observation Survey

Reliability. The reliability of the Alphabet Knowledge subtest of the OS (Clay, 2002b) was established by testing on 796 randomly chosen children, ages 5 to 7 years from 199 schools in New Zealand. Split-half reliability was reported at .97 (Clay, 2002b). Additionally, researchers determined a reliability coefficient of .95 (Pinnell, McCarrier, & Button, 1990). The research examiner was trained to administer this assessment, which assisted in providing a stronger reliability for this study.

The OS instrument was administered individually, which allowed less measurement error and more observation of personal literacy levels (Clay, 2002b). It is a one-on-one instrument, therefore behaviors or responses can be added to understand the emergent literacy level of children (Clay, 2002b). The alphabet portion of the OS (Clay, 2002b) permitted detailed recording of emerging literacy behaviors.

Validity. Further, the validity tests of the OS (Clay, 2002b) occurred with the same random sample. According to Clay (2002b), the instrument possessed content, face and curriculum validity. Concurrent validity was calculated through studies with 100 New Zealand children in 1966 and 1991 studies. Coefficients were reported as .85 for the Letter Identification Section of the OS test.

The validity was also computed on first grade and kindergarten children in the United States (Denton, Ciancio, & Fletcher, 2006). Denton et al. (2006) reported moderate to strong validity on the OS subtests. The scores for the alphabet subtest for the aforementioned sample were negatively skewed; thus illustrating that the children, who were tested, ended kindergarten and entered first grade with letter knowledge. Schatschneider, Fletcher, Francis, Carlson, and Foorman (2004) found that when kindergarten children with alphabet knowledge entered school, they were more successful reading in first grade.

Preschool Word and Print Awareness Assessment

Reliability. Reliability was established through two test administrations by Justice and Ezell (2000; 2001). Justice and Ezell (2000) randomly selected 25 percent of 38 children, who were double-scored by two independent test administrators. The test was administered using a prescribed set of directions, sequenced tasks and an area to record notes on pre-reading behaviors during the test. Justice and Ezell (2001) found regularity on 25 percent of the 30 times the test was administered. The average fidelity of the test administration was reported to be 99 percent (Justice & Ezell, 2001).

(Justice & Ezell, 2001; Justice et al., 2006). The data from these two studies established the reliability of the PWPA.

Validity. Justice et al. (2006) established validity with the Item Response Theory Model (IRT) and the Partial Credit Model (PCM). The data fit the PCM Model at both the item and respondent level. Acceptable fit was determined at 0.7 and 1.3. Significant misfit was determined when values were less than -2 and more than 2. The respondent analysis found that several children had a misfit outside the 0.7 and 1.3 bounds on item three. However, their numbers lacked significance. Item three asked the question, *What do you think the (administrator points to the title) says?* To adjust the fit for item three, Justice et al. (2006) changed the scoring from (0, 1) to (0, 1, 2). The PCM analysis was calculated again and the misfit related to item three was eliminated. The reliability for this item was estimated at .74.

The sample population, 128 three to five year-olds for this analysis, was disaggregated by language ability and socio-economic status (Justice et al., 2006). Specifically, the groups were first divided according to socioeconomic status, and then sorted into the categories of developing language and language delay. The analysis by Justice et al. (2006) determined a mean of 100 and a standard deviation of 15 for $N = 128$. The range for the sample population was between 63 and 107. When disaggregated into subgroups, the 58 typical language children (TL) scored a mean of 111 with a standard deviation of 12. Further analysis of the TL children from low income homes received a mean of 89 and a standard deviation of 11. Item analysis revealed 90 percent of the children scored one point on item one. On the other hand,

only 13 percent of the children achieved one point on item 10. Item 4 and 11 also proved to be difficult for the participants with 13 percent and 5 percent, respectively, earning points. From these calculations, the PWPA was valid at the respondent and item levels.

The PWPA instrument was conducted individually, which allowed less measurement error and more observation of personal literacy levels. Inter-rater reliability was conducted with ten percent of the PWPA scored by a second reviewer resulting in an eighty-eight percent agreement in the scores. The PWPA (Justice et al., 2006) allowed more detailed recording of emerging literacy behaviors than a normative test. The shared reading format was similar to tasks that occurred in the classroom (Clay, 2002a).

Research Design

This quasi-experimental study (Gall, Borg & Gall, 1996) examined the results of the intervention of utilizing PCEP to focus on increasing the alphabet knowledge and print concepts of prekindergarten children in an urban school district. A quasi-experimental design was used in this study to analyze the effectiveness of a PCEP intervention as measured by the OS (Clay, 2002b) and PWPA (Justice et al., 2006). Within the types of quasi-experimental designs, the nonequivalent control group model was employed since this study observed factors in a contextualized setting within an urban school district (Gall et al., 1996; Issacs & Micheals, 1997). According to Gall

et al., (1996) members in a quasi-experimental design are not randomly assigned to either the control or experimental group. The participants of this quasi-experimental study attended the school within their attendance zone.

The procedure of this study followed a pre-test, intervention and post-test sequence utilizing control and experimental groups. Data were collected at two different periods: during the pre-test in September 2005 and during the post-test in November of 2005. Additionally, two observations were recorded to determine whether the intervention's curriculum was being implemented and materials were being utilized.

Data Collection

Observations

Experimental School. Classroom observations were included in the research design to determine whether the experimental school followed the intervention. The research examiner observed the children and teachers at the experimental school two times during the intervention, October 5 and November 9, 2005. The observations identified the objectives being taught by the teachers (see Appendix G) using an observation checklist of the intervention objectives (see Table 3.2).

The research examiner observed both classrooms during the fall semester. During the observations, the examiner observed one of the experimental prekindergarten classes for 30 to 45 minutes. Then she observed the other experimental class for the same amount of time. To complete the observation she observed each classroom for an additional 15 to 20 minutes. The second time the examiner observed the two experimental classrooms she began with the classroom that had been observed last

during the first visit. The same amount of time the teachers had been observed previously was followed.

Observations were recorded on a form that listed the intervention's objectives (see Figure 3.4 and Appendix G). Both observations were conducted by the same research examiner. The first observation, October 5, 2005, occurred during the fourth week of the intervention. The teachers were observed a second time during the ninth week on November 9, 2005. The observed objectives were checked and field notes were recorded (see Appendix G). Digital pictures also recorded the student's activities and the PCEP materials implementation. As soon as the observations were completed, the data were given to the researcher.

Control School. Observations of the control group occurred during the pre-test and post-test by the independent research examiner. Additional information was collected on October 18, 2006 during an interview with the lead prekindergarten teacher who taught at the control school. The research examiner also conducted a member check after each interview question (see Appendix U).

Pre-tests and Post-tests

To answer the research questions framing this quasi-experimental study (Gall, et al., 1996), data from the pre-tests and post-tests were collected during two time periods. Data was gathered through the administration of the pre-test in September 2005 and again nine weeks later in November using a post-test. The data for both research questions were analyzed from the results of the AK section of the OS (Clay, 2002b) and the PWPA (Justice et al., 2006). The same objective examiner conducted both the pre-

test and post-test assessments of alphabet knowledge and print concepts. Pre-tests and post-tests were performed during one week by the examiner. The testing occurred within two days at the control school, two days at the experimental school and the final day was used to test children that had been absent at either school. Testing conditions at both schools were within school hours and in a quiet area near the classrooms.

Data Collection for Alphabet Knowledge

The Alphabet Knowledge Subtest of the OS Test (Clay, 2002b) was utilized for the pre-test and post-test to assess the student's recognition of capital letters. Children were assessed individually by a trained external examiner. Using prepared cards, the children were randomly shown capital letters (Clay, 2002b). Letters were inscribed using manuscript font. Letters "I" and "J" were written with a bar placed at the top or bottom of the letter (Clay, 2002b). It was important for the font utilized in the intervention activities to be the same as the font on the pre-test and post-test.

The score sheet listed alphabet letters that tallied letter identification (Clay, 2002b). As the child recognized the letter, it was noted by the examiner. A total score of 26 was earned if the child identified all the capital letters. The amount of time needed to administer the test varied with each child. After testing, the identified letters were circled on a sheet listing all the alphabet letters (see Appendix E). After being scored, the sheets were returned to the researcher.

Data Collection for Print Concepts

Data measuring print concepts were collected using the PWPA (Justice et al., 2006). The PWPA employed an appropriate prekindergarten book, *Nine Ducks Nine* (Hayes, 1990), to assess each prekindergarten child's knowledge of print concepts (Justice et al., 2006). Print concepts of location and purpose of title, function and context of print, concept of letter, location of print or picture and directionality were examined while reading the book. During the pre-test, the examiner questioned each prekindergartener about the print concepts specified by the PWPA (Justice et al., 2006). One point was awarded for a correct response, two points for abstract responses and no points were given for incorrect responses as required. Possible answers were provided by the authors of the PWPA for the examiner (Justice et al., 2006).

Data Analysis

Data analysis was conducted using Statistical Package for the Social Sciences (SPSS) computer software. To answer both research questions, the children at the control and experimental schools participated in the pre-test using the alphabet section of the OS (Clay, 2002b) and the PWPA (Justice et al., 2006). The pre-test generated baseline data for the study. After nine weeks of the PCEP intervention, the children at the control and experimental school were again assessed utilizing the OS (Clay, 2002b) and PWPA (Justice et al., 2006).

Procedure

Before conducting tests to examine each research question, an Analysis of Covariance (ANCOVA) was computed to determine whether growth in alphabet

knowledge and print concepts had occurred. ANCOVA was selected to equalize the number of children in the control and experimental groups and control for any pre-test differences that existed between the groups. According to Gall et al. (1996), the primary risk for internal validity in the non-equivalent group design was “pre-existing group differences” (p. 508). Gall et al. suggested using ANCOVA to control for these differences.

Research Question 1

Is there a statistically significant difference in the increase of alphabet knowledge of prekindergarten children at high-poverty urban schools when popular culture environmental print is incorporated purposely within instruction?

To determine whether an increase occurred in prekindergartener’s alphabet knowledge between the control and experimental groups after the PCEP intervention, the means and standard deviations were computed for growth in alphabet knowledge from the pre-test to the post-test. Normality was tested to determine whether parametric or non-parametric tests should be conducted. The Kruskal-Wallis test was selected to compare the mean rank.

Research Question 2

Is there a statistically significant difference in print concepts of prekindergarten children in high-poverty urban schools when popular culture environmental print is incorporated purposely within instruction?

To understand whether a statistically significant difference occurred in the knowledge of print concepts of the control and experimental groups after the PCEP

intervention, the means and standard deviations were calculated for growth from the pre-test to the post-test. A one-way ANCOVA was selected to compare the means and calculate the statistical significance. Histograms of the data were added to determine the skewness and distribution of the scores (Pallant, 2001).

Summary

This chapter described the demographics of the community and urban school district where this quasi-experimental study was conducted. A weekly description of the PCEP intervention's objectives and activities was also included. The pilot study of the PCEP Survey and the instruments utilized were explained. Data for this study was collected during two time periods using a pre-test and post-test design. Observations and interviews were recorded to identify whether the experimental group was implementing the intervention and how the control group taught alphabet knowledge and print concepts. Procedures for the data analysis were also clarified.

CHAPTER IV

RESULTS AND ANALYSIS

In this quasi-experimental (Gall, et al., 1996) study conducted to investigate the intervention of popular culture environmental print (PCEP) on the early literacy skills of prekindergarten children in one high-poverty school district, data was analyzed using Statistical Package for the Social Sciences (SPSS) computer software. Research question one examined the increase of alphabet knowledge when an intervention employing popular culture environmental print was implemented in the prekindergarten literacy curriculum. Research question two examined the increase in the knowledge of print concepts when the intervention of popular culture environmental print was also incorporated in the prekindergarten literacy curriculum. Alphabet knowledge was measured using the Alphabet Knowledge Subtest from the Observation Survey of Early Literacy Assessment (OS) (Clay, 2002b). Print concepts were measured using the Preschool Word and Print Awareness Assessment (PWPA) (Justice et al., 2006). Prekindergarten children were assessed using a pre-test /post-test methodology of control and experimental groups.

The sample consisted of four-year old children attending two high-poverty public elementary schools within the same urban school district. The four-year old children at both schools qualified for the prekindergarten program based on either federal income guidelines or speaking a language other than English as their first language. The afternoon classes from both high-poverty elementary schools were composed of children within each school's attendance area (B. Carrillo, personal communication, October

2004). Thus, the children were from similar socio-economic backgrounds and attended high-poverty elementary schools within the same urban school district. Permission to participate in the study was secured from the parents and guardians as the children registered for prekindergarten classes in the fall of 2005 at both the control and experimental schools.

Overall Growth

Research Question 1

Before conducting tests to examine each research question, a Repeated Measures Analysis of Variance (ANOVA) was conducted to establish that the children had increased their knowledge of the alphabet and print concepts. The repeated measures ANOVA compared the alphabet knowledge pre-test scores with the post-test scores in Table 4.1. There was a significant effect for the post-tests, Wilkes' Lambda = .45, $F(0, 56) = 66.48$, $p = .00$ ($p < .05$), multivariate $\eta^2 = .55$. Therefore, due to the increase in alphabet knowledge scores as indicated by the post-test scores, further testing was supported.

Table 4.1
Descriptive Statistics for Overall Growth Alphabet Knowledge with Scores from the Pre-test and the Post-test

Assessment	<i>N</i>	<i>M</i>	<i>SD</i>
Pre-test	56	4.25	6.66
Post-test	56	10.38	8.8

Research Question 2

A Repeated Measures ANOVA was computed to determine growth on print concept knowledge of both groups. The Repeated Measures ANOVA compared the print concept pre-test scores with the post-test scores in Table 4.2. There was a significant effect for the post-tests, Wilkes' Lambda = .47, $F(0, 56) = 61.91$, $p < .00$, ($p < .05$), multivariate $\eta^2 = .55$. Therefore, due to the increase in print concept scores on the post-test scores, further testing was supported.

Table 4.2
Descriptive Statistics for Overall Growth Print Concepts with Scores from the Pre-test and the Post-test

Time period	<i>N</i>	<i>M</i>	<i>SD</i>
Pre-test	56	25.5	14.12
Post-test	56	47.62	24.25

Research Question 1

Is there a statistically significant difference in the increase of alphabet knowledge of prekindergarten children at high-poverty urban schools when popular culture environmental print is incorporated purposely within instruction?

Research question one focused on the growth of alphabet knowledge of prekindergarten children at the control and experimental schools. The data collection occurred through the administration of pre and post-tests. Sixty-two prekindergarten

children were pre-tested; thus generating baseline data. Of these, 30 prekindergarteners attended the school for the control group and 32 participated from the school for the experimental group. After the nine-week intervention, the sample number decreased to 56. The sample at the control school consisted of 26 participants, while the experimental group's sample was composed of 30 participants. Additionally, the covariate, or pre-test, was measured a week before the treatment occurred. Split-half reliability was reported at .97 by Clay (2002b) and by Pinnell et al., (1990) at .95.

Growth had occurred during the nine-week period, but several outliers were identified in the overall growth box plots (Appendix V.1, V.2). One of the five outliers from the control group moved during the nine week intervention. Therefore, the student was removed from the AK data and tests were recalculated. Thus, the pre-test control group's sample changed from 30 to 29, while the experimental group's sample remained at 30; therefore, a total of 61 participants were tested for growth in AK.

The assumptions of linearity and homogeneity of regression were checked to assure they were not violated. The assumption of linearity illustrated a linear and parallel distribution of the data (see Appendix V.3). The Rsp values were computed at .80 for the control group and .50 for the experimental group (see Appendix V.3).

Histograms and Box-plots for the pre-test and post-test illustrated non-normal distributions (see Appendix V.4-V.7). In the univariate tests of between subjects effects, no statistically significant interaction between the covariate and the treatment $F(1, 52) = .01, p = .91$ ($p < .05$) was determined; thus homogeneity of regression was not violated. The Levene Test of Equality of error variances identified the variances as

unequal at the post-test $F(1, 54) = 6.45$ $p = .01$ ($p < .05$). Although growth had occurred over the nine-week period, the normality assumption was violated. Therefore, non-parametric statistics were chosen to answer research question one (see Table 4.3).

Table 4.3
Normality Tests Alphabet Knowledge

Test	Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>5%</i>	<i>Mdn</i>	<i>Skew</i>	<i>Kurtosis</i>	<i>D</i>
Pre	Control	29	4.0	7.3	3.1	.00	2.0	2.9	.00
	Expt	32	4.0	5.7	3.4	1.00	1.5	1.7	.00
Post	Control	26	7.9	8.6	7.4	4.0	1.0	-.4	.00
	Expt	30	12.5	8.5	12.5	11.5	.14	-1.5	.11

After reviewing the descriptive statistics, the Kruskal-Wallis Test, a non-parametric test, was chosen to compare the mean ranks, or median, of the control and experimental groups. The continuous dependent variable selected was the number of letters identified on the post-test. The control and experimental groups were designated as the independent variables. The assumptions for the Kruskal-Wallis test of similar samples and independent observations were satisfied; thus allowing for the non-parametric test to be calculated.

The output for the Kruskal-Wallis reported the experimental group's mean rank of 32.95 while the control group's mean rank was calculated at 23.37 (see Table 4.4). There was a statistically significant difference in the continuous dependent variable

between the two groups $\chi^2(1, N = 56) = 4.83$ $p = .03$. Therefore, since the p value was less than the .05 criterion of statistical significance, a statistically significant difference existed between the control and experimental group's mean ranks when compared with the number of letters known on the post-test (see Table 4.4).

Table 4.4
Kruskal-Wallis Test for Alphabet Knowledge

Group	<i>n</i>	Rank
Control	26	23.37
Expt.	30	32.95
Total	56	

Both the control and experimental groups taught alphabet knowledge objectives by introducing a similar number of letters per week using large group, small group, and balanced literacy centers. Alphabet knowledge was taught in the control group through Morning Message, calendar, and the word wall. However, the experimental group was introduced to alphabet letters according to the popular culture characters recognized by the children. Small group instruction in alphabet knowledge at the control school identified letters in the children's names in individual alphabet letter books, and in their journals. Conversely, small group alphabet knowledge lessons at the experimental school focused on popular culture environmental print to form, write and identify alphabet letters.

Additional Findings Alphabet Knowledge

Prekindergarten programs are provided for students speaking a language other than English as their first language. The urban school district used for this study registered prekindergarten children, who spoke a language other than English, only at the experimental school. Six children in the experimental group spoke very little English in September and, subsequently, knew few alphabet letters. At the pre-test, the children recognized letters ranging from zero to eight. However, at the conclusion of nine week intervention, the children increased their alphabet knowledge with a range from 4 to 24 identified letters (see Table 4.5).

Table 4.5
Growth of Bilingual Students Experimental Group Alphabet Knowledge

Student	e13	e15	e16	e17	e114	e117
Pre-test	8	2	0	0	0	0
Post-test	24	7	6	4	21	12

Research Question 2

Is there a statistically significant difference in the increase of print concepts of prekindergarten children in high-poverty urban schools when popular culture environmental print is incorporated purposely in instruction?

Research question two focused on the growth of print concepts of prekindergarten children at control and experimental schools in an urban school district.

Data was gathered during two collection periods: a pre-and post-test of print concepts. Sixty-two prekindergarten children participated in a pre-test of print concepts generating baseline data. Of these, 30 were in the control group and 32 contributed data for analyzing the experimental group pre-test. After the nine-week intervention of teaching print concepts through PCEP, the total number of participants decreased to 56. The control group consisted of 26 children and the experimental group included 30 prekindergarteners.

To answer the second research question of this quasi-experimental study, Analysis of Covariance (ANCOVA) was selected to compare the print concepts scores at the pre-test and post-test for both groups. The covariate was the number of print concepts identified through the administration of the PWPA pre-test. The number of print concepts recognized on the post-test was the dependent variable, while the control and experimental groups were designated the independent variables.

Before testing print concepts, the assumptions for ANCOVA were checked. Non-normal distributions of the pre-test were due to the construct being measured. However, it was determined that the participants in both the control and experimental groups illustrated near normal distributions on the post test (see Appendix W.1; W.2).

Outliers appeared on the pre-test box plot in the experimental group (see Appendix W.3; W.4). The experimental group's data illustrated three low extreme scores and two high scores. However, the five percent trimmed mean, 47.36, and raw mean, 47.6, for the experimental group were similar; therefore, the outliers had little effect on the mean (see Appendix W.3; W.4).

Homogeneity of regression was computed at $F(1, 52) = 5.76, p = .02$. Therefore, the homogeneity of regression slopes appeared to be violated (see Appendix W.5).

According to Leech, Barrett and Morgan (2005), when the group sizes are “almost equal (34 and 41), this is not a big problem, especially given the way SPSS calculates the ANCOVA” (p. 144).

Further, descriptive statistics were calculated with the scores for both groups’ pre-tests and post-tests (See Table 4.6). The five percent trimmed mean and the unadjusted mean for both groups were similar on these assessments. The unadjusted means of both groups were comparable on the pre-test. The experimental group post-test mean was calculated at 61.03, while the control group’s post-test mean was computed to be 31.84. Additionally, the medians were the same at 27.78 for the pre-test for both groups; however, on the post-test, the experimental group’s median, 66.67, was greater than the control group’s, 30.55 (See Table 4.6).

Table 4.6
Descriptive Statistics Print Concepts Both Groups Pre and Post-tests

	Group	<i>M</i>	<i>5%M</i>	<i>SD</i>	<i>Mdn</i>	<i>Skew</i>	<i>Kurtosis</i>	<i>D</i>
Pre-	Control	27.40	26.75	17.07	27.78	.44	.35.	.20
Test	Expt.	25.00	25.00	10.65	27.78	-.16	.79	.00
Post-	Control	31.84	31.20	16.6	30.55	.56	1.13	.20
Test	Expt.	61.3	62.03	21.46	66.67	-.57	.51	.19

A one-way between groups ANCOVA was conducted to analyze the relationship between the variables. The ANCOVA between subjects factors test compared the means of the control and experimental group. The adjusted and unadjusted mean for the experimental group increased more than the means for the control group. Both of these means calculated similar values at the pre-test and post-test for the control and experimental groups (see Table 4.7). The adjusted marginal means was figured with the covariate value at 25.50. Additionally, the Levene Test of Equality of Error Variances computed $F(1, 54) = 1.579$ $p = .21$, thus equality of variances was not violated.

Moreover, the ANCOVA tests of between-subjects effects were computed. These tests determined whether the control and experimental groups were significantly different in terms of their pre to post-test print concepts scores. Using the covariate to control for scores on the pre-test, a statistically significant difference appeared to exist between the print concepts recognized by the control and experimental groups $F(1, 52) = 67.27$, $p = .00$, ($p < .05$) $\eta^2 = .56$. This value identified how much of the variance

Table 4.7
ANCOVA Descriptive Statistics Print Concepts Post-tests

Group	<i>n</i>	<i>Unadjusted M</i>	<i>SD</i>	<i>Adjusted M</i>	<i>SE</i>
Control	26	31.84	16.6	30.90	2.78
Expt.	30	61.3	21.47	62.11	2.6

in the post-test scores was explained by their group. Therefore, the group in which the children participated appeared to have a large effect on the print concepts identified on the post-test.

Further, the ANCOVA determined the relationship of the covariate, scores on the pre-test, and the dependent variable. There appeared to be a significant correlation between the covariate and the dependent variable, print concepts identified on the post-test as tested by the PWPA $F(1, 52) = 47.85, p = .00 (p < .05) \eta^2 = .47$. Forty-seven percent of the print concepts known on the post-test appeared to be explained by the number of print concepts known at the beginning of the study. Thus, a strong relationship existed between the covariate and print concepts identified on the PWPA post-test.

Print concepts were learned by the participants in groups through small and large group instructional methods. However, the control group utilized leveled readers to acquire print concepts, while the experimental group focused on writing about popular culture characters and reading what they had written about these characters. Both

groups included large group instruction involving big books, pointers and a word wall. Additionally, the control group also practiced their use of print concepts using the Morning Message to locate high frequency words. While both groups utilized a word wall for “reading the room” (Bramble, personal communication October 18, 2006), the experimental group’s word wall included popular culture environmental print, whereas the control group read traditional environmental print. The number of print concepts presented to the control group depended on the existing literacy knowledge of the children. Print concepts were taught regardless of the participants’ literacy levels in the experimental group.

Summary

This chapter reported the results of a quasi-experimental study. This study measured the control and experimental group’s participants’ knowledge of the alphabet and print concepts. A nine-week intervention integrated PCEP with the emergent literacy curriculum of prekindergarten students participating in control and experimental groups in one urban school district in the southwestern United States. The OS was utilized as a pre-test and post-test of alphabet knowledge, while the PWPA, employed as the pre-test and post-test, measured print concepts.

CHAPTER V

CONCLUSION AND SUMMARY

The National Association of Educational Progress (NAEP) reported 32 percent of children in the fourth grade scored below grade level in reading (USDOE, 2001a, 2004). Young children from high-poverty homes scored 5 to 7 points below the national average on emergent literacy skill upon entering kindergarten (Denton & West, 2002). Therefore, it is critical for emergent literacy interventions to occur before children enter kindergarten.

Research has determined that emergent literacy skills for prekindergarten children included alphabet recognition, print awareness, phonemic awareness and oral language (IRA & NAEYC, 1998; Kuby, 1999; Neuman, 2000, 2004; Scanlon & Vellutino, 1996; Schulele et al., 2004; Smith, 1997; Snow et al., 1998). Recent studies have identified the significance of initiating the foundation of literacy during the prekindergarten years (Halle, et al., 2003; Reutzel et al., 2003). Utilizing environmental print to teach emergent literacy skills has been an instructional strategy that has been used to encourage print awareness (Justice & Ezell, 2000; Morrow, 2000; Neuman, 2004; Reutzel et al., 2003).

In the past, the use of environmental print in the literacy curriculum has focused on the print found on food packages, restaurant signs and on street signs located in the child's community and home (Goodman, 1984; Purcell-Gates, 1996). Previously, classroom strategies consisted of children identifying the words in the print by using the logo of environmental print (Goodman, 1984; Purcell-Gates, 1996). Children of the

twenty-first century have been immersed in a new form of print related to popular culture television and video characters (Dyson, 1999, 2001, 2003a; Gee, 2003; Marsh, 1999a; Marsh, 2003a, 2003b; Orellana & Hernandez, 1999, 2003; Rodriguez, 1999). This new form of print, popular culture environmental print (PCEP), has been identified in books, videos, clothing, shoes, toys and home accessories (Marsh, 2003). Limited studies have focused on using PCEP in the prekindergarten curriculum to teach early literacy skills.

Therefore, the purpose of this quasi-experimental study (Gall, et al., 1996) was to examine the effectiveness of using a PCEP intervention in the prekindergarten curriculum in a high-poverty urban elementary school to increase alphabet knowledge and print concepts. Data were collected from 56 prekindergarten children in control and experimental groups enrolled in afternoon classes. The sample for the control and experimental school consisted of culturally, linguistically, ethnically, and economically diverse populations (CLEED) (Larke, personal communication, September 7, 2002).

Further, this study analyzed scores from two data collection periods. The prekindergarten children at both the control and experimental schools participated in a pre-test during September of 2005. After nine weeks of the PCEP intervention at the experimental school, both groups then participated in a post-test. The pre-tests and post-tests measured the increase of alphabet knowledge (AK) and print concepts (PC) of both the control and experimental groups in a high-poverty urban district.

Overall Growth Tests

There appeared to be an overall growth in AK and PC of prekindergarten students. The experimental group in this study related specific PCEP characters to assist the children in identifying alphabet letters and print concepts. The ANCOVA tests of between-subjects effects for AK found a statistically significant difference $p = .00$, ($p < .05$), $\eta^2 = .59$. PC was also analyzed using an ANCOVA test of between-subject effects. Statistical significance of $p = .00$ with $p < .05$, $\eta^2 = .25$ was found. Therefore, additional testing was conducted. The following paragraphs discuss the results of the research questions. Subsequent recommendations and implications for future studies conclude this chapter.

Research Question 1

Is there a statistically significant difference in the increase of the alphabet knowledge of prekindergarten children at high-poverty urban schools when popular culture environmental print is incorporated purposely within instruction?

A statistically significant difference of $p = .01$ with $p < .05$ was determined between the control and experimental group's knowledge of alphabet letters on the post-test. Descriptive statistics revealed increases in the means from the pre-test to post-test. The experimental group's mean improved from 4.0 to 12.5, while the control group mean progressed from 4.0 to 7.9. However, the median for the experimental group (1.0) was slightly higher than the control group (.5) on the pre-test. Further, the medians for both groups increased on the post-test. The control group's median increased from .5 to 4.0, while the experimental group's resulted in a greater range of 1.0 to 11.5.

Normality statistics determined non-normal distributions on the pre-test and post-test. The means and five-percent means of both groups were similar on the post test. Additionally, the mean for the experimental group increased from 4.0 to 12.5, while the control group's mean began at 4.0 and rose to 7.9. The assumption of homogeneity of variances was violated, as illustrated by the Levene test $F(1, 54) = 6.45, p = .01, (p < .05)$. Therefore, non-parametric statistics were selected for further testing.

Utilizing a Kruskal-Wallis test, a non-parametric method, the mean ranks of the control and experimental groups were compared. The control group's mean rank was determined at 23.37, while the experimental group's rank was computed at 32.95. A statistically significant difference of $p = .03$ was found between the mean rank of the control and experimental group, $\chi^2(1, N = 56) = 4.83, p = .03$. Therefore, the use of PCEP to teach alphabet letters appeared to increase the number of letters recognized on the post-test.

Further, second language learners experienced increases in acquiring alphabet knowledge. The pre-test scores of the second language learners ranged from zero to eight letters. After the PCEP intervention, the experimental group's alphabet knowledge scores increased from the pre-test to post-test. Specifically, one child recognized zero letters at the pre-test. However, 24 letters were identified on the post-test. Therefore, the addition of PCEP to the prekindergarten curriculum appeared to increase alphabet knowledge of bilingual, prekindergarten children.

The increases in identified letters of the children appeared to be due to using the PCEP to capture their attention. Rodriguez (1999) found that children understood that

visual print displayed for television was related to the spoken word (1999). He determined that television was significant to the lives of young bilingual children and was appropriate knowledge to apply to classroom discourse (Rodriguez, 1999). This study found that relating the children's home experiences assists the bilingual and monolingual children in connecting linguistically and culturally to the school environment (Pang, 2001).

Further, small group instruction of the experimental group connected the learning of alphabet letters to PCEP characters familiar to the children. The control group, however, linked the acquisition of alphabet letters to names of the children, teachers and months of the year. Dyson (1999, 2001) documented the importance of including the culture familiar to children in the classroom. Dyson (2003) concluded that the curriculum for high-poverty children should reflect the cultural texts which were familiar to the children.

The use of PCEP, rather than traditional environmental print, to teach alphabet knowledge appeared to be the primary difference between instructional materials of the control and experimental groups. Further, the increase in alphabet knowledge appeared to be due to relating the popular culture environmental print, which reflected the home experiences of the children participating in the experimental group, to alphabet knowledge activities in the classroom. Marsh determined the amount of popular culture environmental print that was visible on items related to young children (2004). With the considerable influence of the television and video media (Rideout et al., 2003), PCEP has become a visible form of print children recognize (Marsh, 2004).

Additionally, the increase in alphabet knowledge seemed to be due to using PCEP to explicitly teach prekindergarten children knowledge of alphabet letters. Environmental print has been utilized in the early childhood classroom in a variety of strategies, but rarely used to teach specific grapheme, phoneme or print concept skills (Kuby & Aldridge, 1997; Neuman & Roskos, 1993; Vukelich, 1994). Traditional environmental print instruction has involved children practicing print skills by reading the environmental print during calendar activities and balanced literacy centers. Reutzel et al. (2003) concluded that teachers should incorporate environmental print to analyze letter/sound relationships (2003). Reutzel et al. explained that, "children may need explicit instruction to invoke their phonemic and grapho-phonemic knowledge to analyze environmental print" (2003, p. 158).

Relating the curriculum to concepts familiar to the children was associated with culturally relevant curriculum concepts of Gay (2000), Irving and Armento (2001) and Pang (2001). Using the name of the child to teach alphabet knowledge, as the control school did, is relevant to the child. However, expanding on that concept and including PCEP pertinent to the child appears to have augmented the number of letters recognized for urban prekindergarten children in this quasi-experimental study.

Research Question 2

Is there a statistically significant difference in the increase of print concepts of prekindergarten children in high-poverty urban schools when popular culture environmental print is purposely incorporated in instruction?

The analysis of research question two determined a statistical significance between the control and experimental groups regarding the number of print concepts identified on the post-test. After considering the curriculum at both schools, the use of popular culture environmental print and the explicit focus of using that print to teach print concepts appeared to be the explanation for the experimental group's increase in knowledge of print concepts.

Descriptive statistics revealed increases in print concept means of the control and experimental groups from the time of the pre-test to the post-test as tested by the Preschool Word and Print Awareness Assessment (PWPA). The experimental group's mean advanced from 25.00 to 61.3, while the control group's mean improved from 27.41 to 31.8. The five-percent means were similar to the unadjusted mean. The median score for the experimental group calculated higher (66.67) than the control group's (30.55). The estimated marginal mean for the control group on the post-test was computed at 30.90, while the experimental group's adjusted mean was determined at 62.11. The adjusted means involves the effect of the covariate statistically removed; thus a large difference existed between the control and experimental groups after the number of print concepts known on the pre-test were controlled.

After adjusting for the pre-intervention scores through an ANCOVA, a statistically significant difference appeared to exist between the control and experimental groups' means on the knowledge of print concepts. A statistical significance of $p = .00$ ($p < .05$), $\eta^2 = .56$ was calculated between the group in which the children participated and the number of print concepts identified after the nine-week intervention. These results suggested a strong relationship between the print concepts attained and the group to which the children were assigned. Therefore, the PCEP intervention appeared to increase the knowledge of print concepts of high-poverty prekindergarten students in an urban school district.

The distinction between the control and experimental group was in the material used to teach print concepts. The control group learned print concepts through leveled readers with a patterned text. Rather, the experimental group wrote about popular culture characters they were familiar and then read their writing. Using the print, these prekindergarten children were most familiar “taught to and through the strengths of these students” (Gay, 2000, p. 29). Gay described this process as “culturally validating and affirming” (2000, p. 29).

Irvine (2003) described the importance of cultural awareness in the classroom as a “critical variable in how children learn and how teachers teach” (p. 67). The culture of the child was reflected in the PCEP materials the experimental group used to acquire print concepts. Pang (2001) described teachers in a caring-centered curriculum as creating “meaningful practice” (p. 251) when real-world experiences are connected to school-based learning.

In addition to including the culture of the child, the experimental group concentrated on using popular culture environmental print that was put on the word wall to explicitly teach print concepts during small group and large group instruction. Rather, the control group reported their use of traditional environmental print in the classroom as “reading the room” (Bramble, personal communication, October 18, 2006).

Traditionally, environmental print has been utilized in the classroom to assist children in becoming aware that the written word correlates to the spoken word (Adams, 1996; Strickland & Schickendanz, 2004). Reutzel et al. (2003) noted at the conclusion of their study that environmental print alone was unable to induce children to use the letters to help read the print. Rather, teachers should incorporate environmental print to teach emergent literacy concepts (2003). In this study, using PCEP as the impetus for children to focus on the print appeared to assist the experimental group in acquiring print concepts.

Furthermore, in the experimental group, print concepts were taught regardless of the literacy level. The control group taught print concepts according to the literacy level of the children. One component of culturally responsive pedagogy is high expectations (Gay, 2000; Pang, 2001). By teaching print concept objectives to all children regardless of their literacy level, the teachers demonstrated high expectations in regard to the children in their classrooms being able to acquire print concepts. Thus, the results appear to be related to characteristics of the teacher.

Along with constructing meaningful classroom experiences, the PCEP intervention was also motivating to prekindergarten children. Although this study did not

measure motivation, photographs of the children involved in their work with PCEP illustrated their excitement. Additionally, the teachers conveyed to the research examiner the enthusiasm the children exhibited. Alvermann et al. (2005) and Dyson (2001) observed how motivated children became in completing school tasks when popular culture characters were included. Likewise, Irvine and Armento (2001) discussed the connection between motivation and prior knowledge in acquiring new skills as culturally responsive teaching.

In conclusion, the increase in print concepts appeared to be due to utilizing popular culture characters children observed at home. The student's culture became the springboard for expanding the curriculum and became a source of motivation for increasing emergent literacy skills (Pang, 2001). Also, through explicit teaching of print concepts with the PCEP, the children expanded their knowledge of print concepts. The teachers of the experimental group had high expectations for their children; thus encouraging the acquisition of print concepts of prekindergarten children.

Conceptual Framework

Taking into consideration the results of this quasi-experimental study, the conceptual framework was revised (see Figure 5.1). Motivation surrounds the framework because each concept or theory of this quasi-experimental study encouraged the acquisition of literacy. Explicit teaching of the popular culture environmental print was added to the diagram due to the role of the teacher in the learning process. Based on the results of this study, the PCEP captured the attention of the prekindergarten children. However, to channel their attention in the direction of emergent literacy skills, the

teacher provided explicit instruction. This instruction, using the PCEP examples to teach emergent literacy concepts, became the vehicle to attain alphabet knowledge and print concepts for urban high-poverty prekindergarten children.

In this study, motivation to learn alphabet knowledge and print concepts occurred through determining the PCEP characters or programs in which in which the children were interested. Keller (1987) explained that motivation occurred through the ARCS model of attention, relevance, confidence and satisfaction.

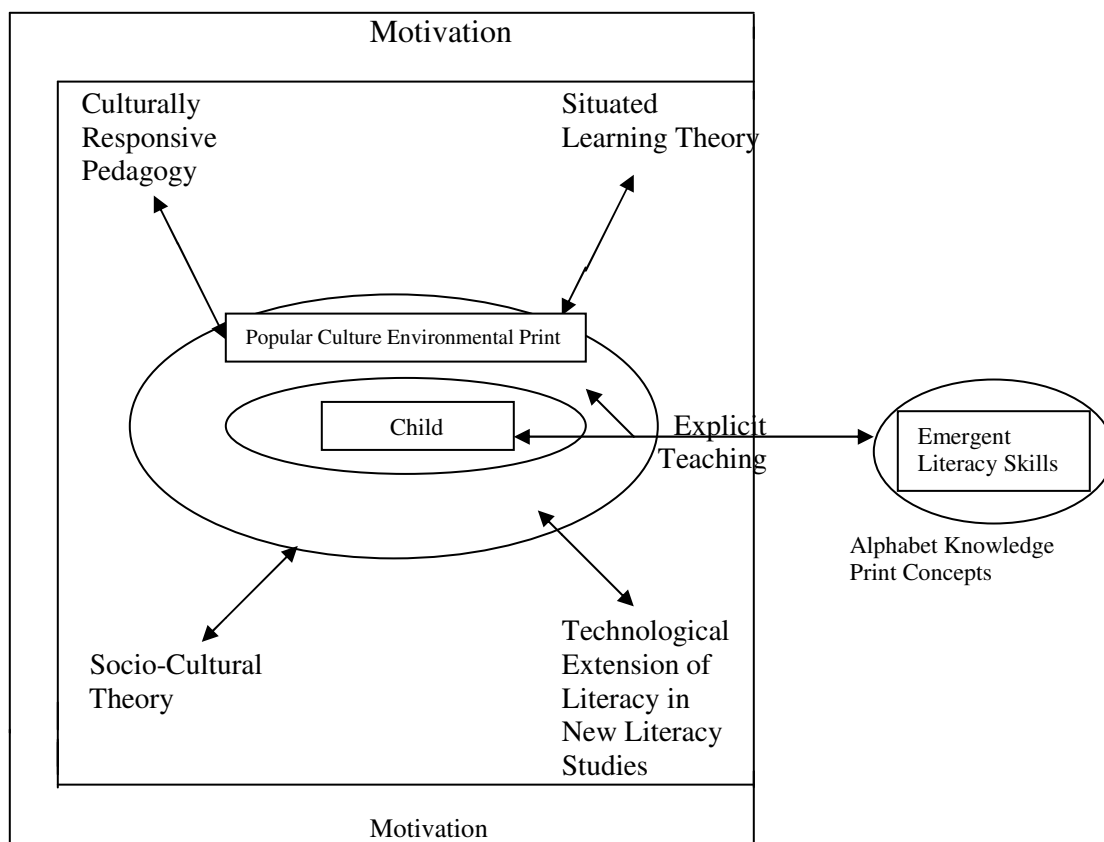


Figure 5.1 Revised Conceptual Framework of the PCEP Intervention

Attention and relevance were the first to be reached in the ACRS model.

Attention to the concepts being learned, were first gained when the concepts were relevant to the learner (Keller, 1987). Relevance occurred as concepts related to the learners' prior knowledge. (1987). The three-dimensional objects and paper copies of the logos and names of the PCEP characters garnered the attention of the children. These objects were relevant because they reflected the child's interest and prior knowledge encountered in the home (Keller, 1987). For example, a *Dora* doll, a three-dimensional object, correlated with the word, *Dora* (Viacom International, 2004).

According to Keller, confidence and satisfaction were outcomes which occurred after attention and relevance was attained (1987). Confidence was defined as the belief in oneself to be able to complete a skill (Keller, 1987). Confidence, attention and relevance generated the outcome, satisfaction (Keller, 1987). As the intervention continued, a research examiner observed learner-centered activities in the classrooms and photographed the children interacting with the games and toys with the research examiner. The experimental group teachers' discussed the positive attitude toward learning the children displayed when using the PCEP games and toys. Similarly, Carter (1990) found that when the purpose for learning to read became "fun" (p. 100), children became enthused about expanding their emergent literacy skills.

In addition, the use of PCEP materials within the literacy centers motivated the acquisition of literacy skills. Characteristics of literacy centers included time for social interaction and opportunities for communication (Fountas & Pinnell, 1991; Morrow, 1988). Vygotsky's (1978) socio-cultural theory also supported using social interaction

and communication to expand knowledge. However, the social interaction and communication of the literacy centers in this study included dialogue regarding PCEP. Due to social interaction the discourse occurring within the literacy centers was motivational to the children because the print represented their prior knowledge and current learning of emergent literacy skills.

According to Lave and Wenger (1991), the prior experiences of children and the contexts of those experiences were the foundation for knowledge a learner brings to a situation. The children in this study entered prekindergarten with the knowledge of popular culture characters. The intervention identified the characters of interest to the children and utilized that prior knowledge to teach emergent literacy skills. In teaching these skills, a community of practice was formed (Lave & Wenger, 1991). Lave and Wenger (1991) explained a community of practice as consisting of certain beliefs, rules or behaviors acquired through social interaction. Novices began on the periphery of the learning community and moved toward the center as they developed into experts. Capitalizing on the prior knowledge of popular culture characters, the children radiated toward the center due to their prior knowledge and accompanying interest of PCEP characters.

Moreover, this prior knowledge represented changes in literacy because of technology. The PCEP intervention utilized the literacy examples that children became familiar with while watching the technology available in the home (Gee, 2000). Gee (2003) described literacy of the 21st century as consisting of images observed on the “screen rather than the page” (p. 13). Marsh (2003b) identified popular culture names

on numerous products that related to children. Additionally, Marsh (2004) identified the print read by children on computers, television and videos as representing popular culture characters.

Furthermore, this prior knowledge of popular characters represented the home experiences of the prekindergarten children in this study. According to Gay (2000), the culturally responsive teacher connected the curriculum to the child's home experience to increase academic achievement. The home survey identified the popular culture characters familiar to the child before they began attending school. Affirming an interest in the home experiences authenticated the learning; thus becoming a vehicle for achieving early literacy skills (Gay, 2000). This cultural congruence respected the child and avoided silencing their voices through the inclusion of the socio-cultural context (Pang, 2001).

Each of the four corners (see Figure 5.1) of the revised conceptual diagram assisted in motivating the acquisition of emergent literacy skills in this quasi-experimental study. In congruence with motivation encouraging these skills, the explicit teaching using the PCEP also was significant. Traditional environmental print encouraged learners to understand that the printed word had meaning (Adams, 1996). However, this quasi-experimental study utilized PCEP to teach specific emergent literacy skills. The PCEP characters were employed as examples for the children to refer to when learning alphabet letters and beginning print concepts.

Using the PCEP characters to teach emergent literacy skills, became the "cognitive tools" (Brown et al., 1989, p. 39). Brown et al. (1989) developed the concept

of cognitive apprenticeship. In cognitive apprenticeship, the learner was supported with “cognitive tools in an authentic domain activity” (Brown et al., 1989, p. 39). These tools were utilized in an activity that evolved into a “culture of practice” (Brown et al., p. 39) that was relevant and contextual to the learner (Brown et al., 1989).

Further, the explicit teaching involved the teacher increasing the children’s knowledge from their actual to their potential level (Vygotsky, 1978). Vygotsky explained the ZPD as the difference between the two levels of learning; the actual and potential levels (1978). The actual or independent level consisted of activities the child could accomplish alone, while the potential level involved the child learning more challenging concepts while being guided by an adult or capable peer. Vygotsky (1987) described how challenging concepts were acquired through adult interaction. As the child accomplished these tasks, new knowledge became internalized within the child’s cognition and subsequently, became part of the child’s independent learning level (Vygotsky, 1978).

Moreover, through the intervention, the teacher scaffolded (Vygotsky, 1978) learning during small group time. Scaffolding continued until the children could complete the activity independently in literacy centers, thereby, expanding the child’s knowledge to an independent level. The process of scaffolding was used by the adult to guide the child’s learning by altering the level of adult assistance according to the identified needs of the child (Vygotsky, 1978). This process provided the framework to elevate the child’s knowledge to a higher independent level of knowledge (1978).

Recommendations

Based on the literature review and the results of this study, the following recommendations are made. Through this quasi-experimental study, using PCEP to teach alphabet knowledge skills, a statically significant increase in the identification of the number of letters existed. Further, second language learners assigned to the experimental school also increased their knowledge of alphabet letters. In addition, a statistically significant difference was found between the control and experimental groups' means of the knowledge of print concepts. Therefore, it is suggested that early childhood literacy programs, which are comprised of prekindergarten, kindergarten, first and second grade contain examples of popular culture environmental print to teach alphabet knowledge and print concepts.

The NCLB (USDOE, 2004, 2001a) has mandated that children be reading on grade level by third grade. Smith (1997) found that successful third grade readers recognized alphabet letters when in prekindergarten. Therefore, starting literacy interventions before children enter kindergarten is significant (Halle et al., 2003); yet, many children enter kindergarten without previous school experience. Forty-five percent of the children entering school lack preschool or prekindergarten experience (Child Trends, 2003).

This study also utilized the Popular Culture Print Survey to gather information from the parents of the experimental group regarding the availability of popular culture environmental print in the home. The information gathered from the parents about the PCEP interests of the children, became the foundation for connecting the home culture

to the prekindergarten literacy curriculum. Therefore, this study recommends including examples of popular culture environmental print from the home within the literacy curriculum. In addition, this study recommends that popular culture environmental print be taught in early childhood literacy curriculums due to its relationship to the children's culture.

Dyson (1999, 2003) and Marsh (2003a) recommended including in the curriculum instruction with a print focus because this strategy reflects the child's home culture. Marsh (2000a, 2003a) concluded that prekindergarten children's literacy skills increased due to including Teletubbies, a popular culture character which related to their home culture. Gay (2000) described valuing the home culture in the classroom as providing instruction relevant to the child's culture. However, Makin et al. (2000), Marsh (2003b, 2005), Marsh and Thompson (2001), and Vered, (2001) found that a dissonance existed between the school and home environments.

Further, this study utilized explicit teaching as the vehicle to transfer the learning of emergent literacy skills. Explicit teaching, using examples of the PCEP to teach emergent literacy skills, whether in small groups, large groups, individually or in balanced literacy centers, increased the acquisition of alphabet knowledge and print concepts. PCEP was included in balanced literacy centers of play-dough, alphabet, writing, puzzles and reading. Therefore, this study recommends incorporating PCEP into literacy centers for the purpose of extending and reinforcing the learning of emergent literacy concepts.

National and state agencies have set standards for young children to read by the third grade (USDOE, 2001). Justice and Ezell (2002) determined that using a “print focus” (p. 17) increased alphabet knowledge and print concepts. Further, Reutzel et al. (2003) concluded that strategies include explicit instructions using environmental print to assist young children in acquiring emergent literacy skills. Utilizing the knowledge children have upon entering the classroom provides the background children need to master beginning literacy skills.

Limitations

The limitations to this study were:

1. Participants in this study may move or be absent for a significant amount of time during the time of the intervention (Gall, Borg, & Gall, 1996).
2. The control and experimental groups in a non-equivalent control group design could be unequal at the beginning of the study. Gall et al. (1996) explained that the use of an analysis of covariance (ANOVA) controlled for this factor.
3. The teachers of both the control group and experimental group could communicate during the intervention, thus resulting in treatment diffusion (Gall et al., 1996). However, because this study was planned at two separate schools, and communication between the groups was limited.
4. Compensatory rivalry could occur between teachers of the control group and the experimental group if the teachers perceived competition (Gall, et al., 1996).
5. Compensatory equalization of treatments could occur with the control group (Gall, et al., (1996). According to Gall et al. (1996), if the control group

perceived that the experimental group was receiving goods and services they would not receive, administrators at the control school may compensate by providing similar goods and services. The control group was offered to use the PCEP intervention materials after the intervention was complete.

6. Resentful demoralization of the control group could also occur (Gall et al., 1996). After the study was completed, the control group had access to the same materials afforded the experimental group.
7. To control for ecological validity, the researcher provided explicit instructions and material for the intervention (Gall et al., 1996) to the experimental group teachers.
8. An experimenter effect could occur since the researcher has worked at the same school as the experimental group teachers (Gall et al., 1996). The researcher employed a research examiner to control for this limitation.
9. Experimenter failure to follow the protocol effect could occur in this study. This limitation was controlled by careful training of the teachers on the intervention and observations to check if the treatment was implemented as the researcher specified (Gall et al., 1996).

Implications

The following implications are based on the findings and conclusions of this study:

1. Replicate the quasi-experimental study in different geographical regions

2. Replicate the study in a larger sample to determine whether PCEP assists other diverse cultures.
3. Replicate the study with larger samples that utilize the PCEP over longer periods of time.
4. Replicate the study in early childhood programs that serve prekindergarten kindergarten, first grade and second grade. Compare the results of the studies conducted in early childhood programs by grade level.
5. A quasi experimental study, compare the 3rd grade standardized test scores for participants in a control group, who had not received PCEP curriculum, with participants of an experimental group who had received PCEP curriculum.
6. Using a quasi-experimental study focusing on second language learners, compare the knowledge of AK and PC of participants assigned to an experimental group, who receive instruction using the PCEP intervention, with the knowledge of AK and PC of participants assigned to a control group, who participates in traditional curriculum.
7. In a qualitative study, observe early childhood programs, which report high achievement scores on standardized tests, to determine the emergent literacy curriculum responsible for successful third grade classrooms.
8. In an observational study, record affective behaviors associated with including PCEP within emergent literacy curriculum.
9. Develop book bags with PCEP activities that can be used at home. Through a qualitative study, examine the responses from families.

10. In relation to demographics, research whether age, experience, gender or ethnicity effect how teachers incorporate PCEP in the classroom.
11. Determine what PCEP was common to a specific community. \
12. Study the effect of the PCEP intervention with and without explicit teaching.

Summary

The critical time to acquire pre-reading skills of alphabet knowledge and print concepts has been determined during a child's early years (Halle, et al., 2003; Smith, 1997). When young children attained literacy skills at an early age, they became more proficient readers in third grade (Smith, 1997). Environmental print has been utilized to determine that print has meaning (Goodman, 1984; Purcell-Gates, 1996) Further, it has evolved from the print found on packages and goods in the home and community to characters and programs found on television, video programs and games as well as on the Internet (Goodman, 1984; Purcell-Gates, 1996). This study utilized a new form of environmental print, popular culture environmental print, to increase the attainment of alphabet knowledge and print concepts.

This chapter reviewed the results of the study, suggested recommendations for utilizing PCEP to teach literacy skills and addressed implications for future research. The results of this study concluded that PCEP improved the emergent literacy skills of alphabet knowledge and print concepts. Integrating the child's culture, specifically PCEP found in the home, became the springboard for expanding the curriculum (Pang, 2001). Explicit teaching of alphabet knowledge and print concepts coupled with the PCEP assisted urban prekindergarten children in acquiring emergent literacy skills.

Rosemary Althouse recommended to “include children’s thinking in planning the curriculum” (Adams & Kostell, 1998, p.35). The PCEP intervention combined the interests of children with explicit instructional strategies to assist high-poverty urban prekindergarten children with beginning reading skills.

REFERENCES

- Academic Excellence Indicators System [AEIS]. (2005). *Academic excellence indicator system*. Retrieved December 29, 2005 from <http://www.tea.state.tx.us/perfreport/aeis/2005/district.srch.html>.
- Adams, M. (1996). *Beginning to read*. Cambridge, MA: Massachusetts Institute of Technology.
- Aller, R. & Minkoff, R. (Director). (1994). *Lion King* [Motion Picture]. Los Angeles: Walt Disney Video.
- Alvermann, D., Moon J., & Hagood, M. (1999). *Popular culture in the classroom*. Newark, DE: International Reading Association.
- Ashton-Warner, T. (1963). *Teacher*. New York: Simon & Schuster.
- Au, K. (1993). *Literacy instruction in multicultural settings*. Ft. Worth, TX: Harcourt Brace College Publisher.
- Bass, J. & Rankin, A. (Director). (1977). *The Hobbit* [Motion Picture]. Burbank, CA: Warner Home Video.
- Bransford, J., Brown, A. & Cocking, R. (2000). *How people learn: Brain, mind, experience and school*. Washington DC: National Academy Press.
- Bredenkamp, S. & Copple, C. (1997). *Developmentally appropriate practice in early childhood classrooms* (Rev. ed.). Washington DC: National Association for the Education of Young Children.
- Brown, J., Collins, A. & Duguid, S. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-42.
- Buena Vista Home Entertainment. (2006). *Disney movie finder: Incredibles*. Retrieved October 15, 2006 from <http://disneyvideos.disney.go.com/>.
- Carter, N. (1990). *The effects of recreational reading on urban, disadvantaged, African American children - A longitudinal study*. Chicago: Loyola University.
- Carter, D. (2002). *Who took the cookie from the cookie jar?* St. Paul, MN: Cartwheel Publishing.
- Chall, J. (1967). *Learning to read: The great debate*. New York: McGraw-Hill.

- Child Trends. (2003). *Child trends data bank: Preschool and prekindergarten programs*. Retrieved May 16, 2003 from <http://www.childtrendsdatabank.org/indicators/103prekindergarten.cfm>.
- Clay, M. (2002a). *Observation survey of early literacy*. Portsmouth, NH: Heinemann.
- Clay, M. (2002b). *An observation survey of early literacy achievement* (2nd ed.). Portsmouth, NH: Heinemann.
- Columbus, C. (Producer). (2002). *Harry Potter and the Sorcerer's Stone* [Motion Picture]. Burbank, CA: Warner Brothers.
- Denton, K. (2004). *A child's treasury of nursery rhymes*. Boston: Houghton Mills Co.
- Denton, K. & West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade*. Washington DC: United States Department of Education.
- Denton, C., Ciancio, D. & Fletcher, J. (2006). *Validity, reliability, and utility of the Observation Survey of Early Literacy Achievement*. *Reading Research Quarterly*, 41(1), 8-33.
- Disney, W. (1991). *Bingo. On children's favorite songs Volume 2* [CD]: Los Angeles: Walt Disney Co.
- DLTK's printable crafts for kids*. (2005). Retrieved June 28, 2005 from <http://www.dltk-cards.com>
- Dunn, L., Beach, S. & Kontos, S. (1994). Quality of the literacy environment in day care and children's development. *Journal of Research in Childhood Education*, 9(1), 24-34.
- Dyson, A. (1999). Coach Bombay's kids learn to write: Children's appropriation of media material for school literacy. *Research in the Teaching of English*, 31, 367-400.
- Dyson, A. (2001). Donkey Kong in Little Bear country: A first graders composing development in the media spotlight. *The Elementary School Journal*, 101(4), 417-433.
- Dyson, A. (2003a). *The brothers and sisters learn to write: Popular literacies in childhood and school cultures*. New York: Teachers College Press.

- Dyson, A. (2003b). "Welcome to the jam": Popular culture school literacy and the making of childhoods. Retrieved October 10, 2004 from <http://www.edreview.org>.
- Education Agency. (2005). *Curriculum and guidelines*. Retrieved May 27, 2005 from <http://www.tea.state.tx.us/curriculum.html>
- Elster, C. (1994). Patterns within preschoolers' emergent readings. *Reading Research Quarterly*, 29(4), 402-418.
- Farran, D. & Son-Yarbrough, W. (2001). Title 1 funded preschools as a developmental context for children's play and verbal behaviors. *Early Childhood Research Quarterly*, 16, 245-262.
- Feldman, J. (2004). Mother Gooney Bird. On *silly songs* [CD]. Retrieved July 1, 2004 from http://www.drjean.org/html/cds_f/cds_friends.html.
- Fernandez-Fein, S. & Baker, L. (1997). Rhyme and alliteration sensitivity and relevant experiences among preschoolers from diverse backgrounds. *Journal of Literacy Research*, 29(3), 433-459.
- Finn, D. & Aldridge, J. (1991). Environmental print as strategy for developmental literacy of young atypical children. *Perceptual and Motor Skills*, 73, 413-414.
- Fountas, I. & Pinnell, G. (1996). *Guided reading: Good first teaching for all children*. Portsmouth, NH: Heineman.
- Gall, Borg, & Gall. (1996). *Educational research: An introduction* (6th ed.). White Plains, NY: Longman.
- Gardner, H. (1997). Beyond I.Q.: Education and human development. *Harvard Educational Review*, 57(2), 187-195.
- Gay, G. (2000). *Culturally responsive teaching: Theory, research and practice*. New York: Teachers College Press.
- Gee, J. (2000). The new literacy studies; from "socially situated" to the work of the social'. In D. Barton, M. Hamilton & R. Ivanic (Eds.), *Situated literacies: Reading, writing in context* (pp. 180-196). London: Routledge.
- Gee, J. (2003). *What video games have to teach us about learning and literacy*. New York: Malgrave MacMillian.

- General Information. (2004). *General information*. Retrieved on February 22, 2005
<http://www.judsonisd.org/education/dept/dept.php?sectionid=47>
- Gentile, D. & Walsh, D. (2002). A normative study of family media habits. *Applied Developmental Psychology*, 23(2002), 157-178.
- Geronimi, C. & Jackson, W. (Directors). (1953). *Peter Pan* [Motion Picture]. Los Angeles: Walt Disney Video.
- Goodman, Y. (1986). Children coming to know literacy. In W. H. Teale & E. Sulzby (Eds.), *Emergent literacy: Writing and reading* (pp. 1-14). Norwood, NJ: Ablex Publishing Corp.
- Goodman, Y. & Altwerger, B. (1981). *Print awareness in preschool children: A study of the development of literacy in preschool children (Occasional paper no. 4)*. Tuscon, AZ: University of Arizona.
- Hall, C. & Thompson, P. (2004). An evil spirit came out of my Nanna: Children's use of popular cultural narrative forms in exploratory autobiographical classroom talk. *Changing English*, 11(2), 223-232.
- Halle, T. Calkins, J., Berry, D., Johnson, R. & Child Trends. (2003). *Promoting language and literacy in early education settings*. Retrieved October 10, 2004 from <http://www.childcarererearch.org>
- Hallstrom, L. (Director). (2001). *Chocolat* [Motion Picture]. Burbank, CA: Miramax Studios.
- Hayes, S. (1990). *Nine ducks nine*. Boston: Candlewick Press.
- Heath, S. (1983). *Ways with words: Language, life and work in communities and classrooms*. Portsmouth, NH: Heinemann.
- Holdaway, D. (1979). *The foundations of literacy*. Gosford, New South Wales: Ashton Scholastic.
- Hubbard, M. (2001). Hubbard's cupboard. Retrieved on July 15, 2005 from <http://www.hubbardscupboard.org/>
- International Reading Association [IRA], & National Association of Early Childhood [NAEYC]. (1998). Learning to read and write: Developmentally appropriate practices for young children. *The Reading Teacher*, 52, 193-213.

- Irving, J. & Armento, B. (2001). *Culturally responsive teaching: Lesson planning for elementary and middle grades*. New York: McGraw-Hill.
- Issacs, S. & Micheals, W. (1997). *Handbook in research and evaluation* (3rd ed.). San Diego, CA: Educational and Industrial Testing Services.
- Jones-Diaz, C. Arthur, L. & Beecher, B. (2000). *Multiple literacies in early childhood*, Paper presented at the Australian Association for Research in Education (AARE) [Electronic Version]. Retrieved on October 7, 2004 from <http://www.findarticles.com>.
- Justice, L. & Ezell H. (2000). Enhancing children's print and word awareness through home-based parent intervention. *American Journal of Speech-Language Pathology*, 9, 257-268.
- Justice, L. & Ezell, H. (2001). Word and print awareness in 4-year old children. *Child Language Teacher and Therapy*, 17, 207-225.
- Justice, L. & Ezell, H. (2002). Use of storybook reading to increase print awareness in at-risk children. *American Journal of Speech-Language Pathology*, 11, 17-29.
- Justice, L., Bowles, R. & Skibbe, L. (2006). Measuring preschool attainment of print-concept knowledge: A study of typical and at-risk 3- to 5-year-old children. *Language, Speech, and Hearing Services in Schools*, 3, 1-12.
- Kaiser Foundation. (2003). *New study finds children age zero to six spend as much time with TV, computers and video games as playing outside*, Retrieved on May 22, 2004 from <http://www.kff.org/entmedia/entmedia102803nr.cfm>.
- Kaiser Foundation. (2004). *Children, the digital divide and Federal policy*. Retrieved September 15, 2004 from www.kff.org
- Keller, J. (1987). Development and use of the ARCS model of instructional design. *Journal of Instructional Development*, 10(3), 2-10.
- Kenner, C. (2000). *Home pages: Literacy links for bilingual children*. Staffordshire, England: Trentham Books Limited.
- Kuby, P. (1999). *A review of research on environmental print* [Electronic Version], October 7, 2004 from <http://www.findarticles.com>.
- Kuby, P. (2004). *A review of research on environmental print*. Retrieved October 7, 2004 from http://www.findarticles.com/p/articles/mi_m0FCG/is_3_26/ai_62980761/print.

- Kuby, P., & Aldridge, J. (1997). Direct versus indirect environmental print instruction and early reading ability in kindergarten. *Reading Psychology: International Quarterly*, 19, 91-104.
- Kuby, & Aldridge. (2004). *The impact of environmental print instruction on early reading ability*. Retrieved on April 22, 2006 from <http://www.findarticles.com/>.
- Kuby, P., Aldridge, J. & Snyder, S. (1994). Developmental progression of environmental print recognition in kindergarten children. *Reading Psychology: International Quarterly*, 15, 1-9.
- Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children*. San Francisco: Jossey-Bass.
- Lambert, M. (Director). (1989). *Pet sematary* [Motion Picture]. Hollywood, CA: Paramount.
- Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Livingstone, S. & Bovill, M. (1999). *Young people new media*. London: London School of Economics and Political Science.
- Livingstone, S. & Bovill, M. (Eds.). (2001). *Children and their changing media environment: A European comparative study*. Mahway, NJ: Lawrence Erlbaum Associates.
- Lomax, R. & McGee, L. (1987). Young children's concepts about print and reading: Toward a model of word reading acquisition. *Reading Research Quarterly*, 22(2), pp. 237-256.
- Mahar, D. (2003). Bringing the outside in: One teachers ride on the anime highway. *Language Arts*, 81(2), 110-118.
- Makin, L., Hayden, J. & Jones-Diaz, C. (2000). High quality literacy programs in early childhood classrooms and Australian case study. *Childhood Education*, 76, 368-373.
- Marsh, J. (1999a). Batman and batwoman go to school: Popular culture in the literacy curriculum. *International Journal of Early Years Education*, 7(2), 117-131.
- Marsh, J. (1999b). Teletubby tales: Popular culture and media education. In J. Marsh (Ed.), *Desirable literacies*. London: Paul Chapman Publishing Ltd.

- Marsh, J. (2000a). Teletubby tales: Popular culture in the early years language and literacy curriculum. *Contemporary Issues in Early Childhood*, 1(2), 119-133.
- Marsh, J. (2000b). 'But I want to fly too!' Girls and superhero play in the infant classroom. *Gender and Education*, 12(2), 209-220.
- Marsh, J. (2003a). Emergent techno-literacy. *Literacy Today*, June, 20-21.
- Marsh, J. (2003b). *Menace or motivator: "Teletubbies" and the language and literacy curriculum in the early years*, Retrieved from <http://www.br-online.de/jugend/izi/english/e-marsh/htm> on May 5, 2004.
- Marsh, J. (2003c). One-way traffic? Connections between literacy practices at home and in the nursery. *British Educational Research Journal*, 29(3), 369-382.
- Marsh. (2004). Techno-literacy practices of young children. *Journal of Early Childhood Research*, 2(1), 51-66.
- Marsh. (2005). Popular culture in the literacy curriculum: A Bourdieuan analysis. *Reading Research Quarterly*, 41(2), 160-175.
- Marsh, J. & Millard, E. (2001). Sending Minnie the Minx home: Comics and reading choices. *Cambridge Journal of Education*, 31(1), 25-38.
- Marsh, J. & Thompson, P. (2001). Parental involvement in literacy development: Using media texts. *Journal of Research in Reading*, 24(3), 266-278.
- Marshall, B. (1997). The use of television in the development of literacy. *Teacher Development*, 1(3), 421-429.
- Martin, B. (1967). *Brown bear, brown bear what do you see?* New York: Harcourt Brace & Co.
- Mason, J. (1980). When do children begin to read: An exploration of four year old children's letter and word reading competencies. *Reading Research Quarterly*, 15(2), 203-227.
- Melton, J.M. (2001). *Mass media in the writing process of English as a second language kindergarteners: A case study examination*. University of North Texas: Digital Dissertations 63(02) AAT 3041917.
- Millard, E. (2002). *To enter the castle of fear: Engendering children's story writing from home to school at KS 2*. Paper presented at the ESRC Research Seminar Series: Children's Literacy and Popular Culture, University of Sheffield, Sheffield, UK.

- Millard, E. (2003). Towards a literacy of fusion: New times, new teaching and learning? *Reading Literacy and Language, (1)*, 3-8.
- Millard, E. & Marsh, J. (2001). Sending Minnie the Minx home: Comics and reading choices. *Cambridge Journal of Education, 31(1)*, 25-38.
- Minark, E. (1957). *Little bear: An I can read book*. New York: Harper Collins.
- Morrell, E. & Duncan-Andrade, J. (2002). What do they learn in school: Using hip-hop as a bridge between youth culture and canonical poetry texts. In J. Mahiri (Ed.), *What they don't learn in school: Literacy in the lives of urban youth*. New York: Peter Lang.
- Morrow, L. (1988). Young children's responses to one to one story readings in school settings. *Reading Research Quarterly, 23*, 89-107.
- Morrow, L. (2000). *Beginning literacy: Research-based principles and practice*. Retrieved October 1, 2004 from <http://www.sadlier-oxford.com/read/papers/morrowpaper.html>.
- Neuman, S. (2000). Social contexts for literacy development: A family literacy program. In K. Roskos & J. Christie (Eds.), *Play and literacy in early childhood: Research from multiple perspectives*. (pp. 153-168). Mahwah, NJ: Lawrence Erlbaum.
- Neuman S. (2004). The effect of print rich classroom environments on early literacy growth. *The Reading Teacher, 58(1)*, 89-91.
- Neuman, S. & Celano, D. (2001). Access to print in low-income and middle-income communities: An ecological study of four neighborhoods. *Reading Research Quarterly, 36(1)*, 8-26.
- Neuman, S. & Roskos, K. (1993). Access to print for children of poverty: Differential effects of adult mediation and literacy enriched play settings on environmental print and functional print tasks. *American Educational Research Journal, 30*, 95-122.
- Norton, B. (2003). The motivating power of comic books: Insights from Archie comic readers. *The Reading Teacher, 57(2)*, 140-147.
- Omnivor Inc. (2006). *Wikki stix*. Retrieved March 11, 2006 from <http://wikkistix.com/>
- Orellana, M. (1994). Appropriating the voice of the superheroes: Three preschoolers' bilingual language uses in play. *Early Childhood Research Quarterly, 9*, 171-193.

- Orellana, M. & Hernandez, A. (1999). Talking the walk: Children reading urban environmental print. *Reading Teacher*, 52(6), 25-36.
- Orellana, M. & Hernandez, A. (2003). Talking the walk: Children reading urban environmental print. In P. A. Mason & J. S. Schumm (Eds.), *Promising practices for urban reading instruction* (pp. 25-36). Newark, DE: International Reading Association.
- Pallant, J. (2001). *SPSS survival guide*. Berkshire, UK: Open University Press.
- Pang, V. (2001). *Multicultural Education: A caring-centered reflective approach*. New York: McGraw-Hill.
- Pinnell, G. McCarrier, A. & Button, K. (1990). *Teachers' applications of theoretical concepts to new instructional settings*. (Report No. 8.) Columbus, OH: Early Literacy Research Project.
- Prior, J. & Gerard, M. (2004). *Environmental print in the classroom*. Newark, DE: International Reading Association.
- Public Broadcasting Service. (2004). *PBS kids coloring*. Retrieved July, 7, 2005 from <http://pbskids.org/>.
- Purcell-Gates, V. (1996). Stories, coupons and the "TV Guide": Relationships between home literacy experiences and emergent literacy knowledge. *Reading Research Quarterly*, 31(4), 406-428.
- Raimi, S. (Director). (2002). *Spiderman* [Motion Picture]. United States: Sony Pictures.
- Reutzel, R., Fawson, P., Young, J., Morrison, T. & Wilcox, B. (2003). Reading environmental print: What is the role of concepts about print in discrimination young readers' responses? *Reading Psychology*, 24, 123-162.
- Rideout, V., Vandewater, E. & Wartella, E. (2003). *Zero to six: Electronic media in the lives of infants, toddlers and preschoolers*. Retrieved on June 18, 2004 from <http://www.kff/prg>.
- Rodriguez, M. (1999). Appropriating the voice of the home literacy experiences of three young Dominican children in New York City. *Educators for Urban Minorities*, 1(1), 19-31.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. NY: Oxford University Press.

- Roskos, K. & Christie, J. (2001). Examining the play-literacy interface: A critical review and future directions. *Journal of Early Childhood Literacy*, 1(1), 59-89.
- Satarma. (2005). *Satarma's world of Disney*. Retrieved July 6, 2005 from <http://disney.satarma.com/clipart.html>.
- Scanlon, D. & Vellutino, F. (1996). Prerequisite skills, early instruction, and success in first-grade reading: Selected results from a longitudinal study. *Mental Retardation and Developmental Disabilities Research Reviews*, 2, 54-63.
- Schatschneider, C., Fletcher, J., Carlson, C. & Foorman, B. (2004). The kindergarten prediction of reading skills; A longitudinal comparative analysis. *Journal of Educational Psychology*, 96, 1-18.
- Schools and Enrollment. (2004). *Schools and enrollment*, Retrieved on October 19, 2004 from <http://www.judsonisd.org>.
- Schulele, M., Bourdreau, D. Justice, L. Kaderavek, J. & Ukraninetz, T. (2004). *Emergent literacy: What are developmentally appropriate practice for preschoolers*. Paper presented at the American Speech-Language-Hearing Association (ASHA) convention, Philadelphia, PA.
- Sesame Street. (2004). *Sesame Street coloring pages*. Retrieved July 6, 2004 from <http://www.sesameworkshop.org/sesamestreet/coloringpages/>.
- Smith. (1997). *A longitudinal study: The literacy development of 57 children*. Paper presented at the Annual Meeting of the National Reading Conference, Chicago, IL.
- Smith, T., Kleiner, A., Parsad, B. & Farris, E. (2003). *Prekindergarten in U.S. Public Schools; 2000-2001*. Retrieved January 15, 2006 from <http://nces.ed.gov/programs/coe/2004/section1/table.asp?tableID=33>.
- Snow, C., Burns, B, & Griffin, E. (Eds.). (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- Stamper, T. (1986). *Donkey Kong*. Redmond, WA: Nintendo of America.
- Strickland, D & Schickendanz, J. (2004). *Learning About Print in Preschool*. Newark, DE: International Reading Association.
- Taylor, W. (1953). Cloze technique: A new tool for measuring readability. *The Journalism Quarterly*, 30, 415-433.

- Taylor, D. & Dorsey-Gaines, C. (1988). *Growing up literate: Learning from inner city families*. Portsmouth, NH: Heinemann.
- Teale, W. & Sulzby, E. (1986). *Emergent literacy: Writing and reading*. Norwood, NJ: Ablex.
- United States Department of Education [USDOE]. (2004). *Questions and Answers on No Child Left Behind- Reading*. Retrieved October 10, 2004 from <http://www.ed.gov.nclb/mentods/reading/reading.html>.
- United States Department of Education [USDOE]. (2001a). *No child left behind 2001 [Electronic Version]*. Retrieved November 6, 2004 from <http://www.ed.gov/policy/>.
- United States Department of Education [USDOE]. (2001b). *No child left behind 2001 [Electronic Version]*. Retrieved on November 6, 2004 from <http://www.ed.gov/policy/>.
- Vered. (2001). *Intermediary space and media competency: Children's media play in "Out of School Hours Care" facilities in Australia*, October 16, 2004 from <http://www.utpjournals.com>.
- Viacom International. (2004). *Nick Jr. Dora for parents*. Retrieved July 6, 2005 from <http://www.nickjr.com/home/shows/dora/index.jhtml>
- Vukelich, C. (1994). Effects of play intervention on young children's reading of environmental print. *Early Childhood Research Quarterly*, 9, 153-170.
- Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. (1987). *Collected Works (Vol. 1)*. New York, Plenum.
- Washington, J. & Craig, K. (1994). Dialectical forms during discourse of urban African American preschoolers living in poverty. *Journal of Speech and Hearing Research*, 37, 816-823.
- Whitehurst, G., Zevenbergen, A., Crone, D., Schultz, M., Velting, O. & Fischel, J. (1999). Outcomes of an emergent literacy intervention from Head Start through second grade. *Journal of Educational Psychology*, 91(2), 261-272.
- Williams, S. (1996). *I went walking*. San Diego, CA: Red Wagon Books/ Harcourt.
- Woodward, E. & Gridina, N. (2000). *Media in the home: The fifth annual survey of parents and children*, June 15, 2004 from <http://www.appcpenn.org>

- Worthy, J., Moorman, M. & Turner, M. (1999). What Johnny likes to read is hard to find in school. *Reading Research Quarterly*, 34(1), 12-27.
- Xu, S. (1999). Young Chinese ESL children's home literacy experiences. *Reading Horizons*, 40(1), 47-64.
- Xu, S., Perkins, R. & Zunich, R. (2005). *Trading cards to comic strips: Popular culture texts and literacy learning in grades K-8*. Newark, DE: International Reading Association.
- Zucker, J. (Director). (1990). *Ghost* [Motion Picture]. United States: Paramount.

APPENDIX A

Popular Culture Environmental Print Survey

Gender of
Pre-Kindergarten child

- Male
Female

List the children in the home by age and gender (for example: boy, 6; girl, 3)

Boys	Girl

Check ALL that apply:

Language used in the home:

- English
Spanish
Other

Check one (1):

Number of adults living in the home:

- 1
2
3
4
5
6
7 or more

Check one (1):

Number of children living in the home:

1.
2.
3.
4.
5.
6.
7. or more

Please write the names of programs.

What TV programs / cartoons does your child spend time watching consistently?
1.
2.
3.
4.

Please write the names of the favorite programs.

What videos/movies does your child enjoy watching?
1.
2.
3.
4.

Check ALL that apply

Which of the following items does your child have that are related to his or her favorite TV/Video characters?
<input type="checkbox"/> Dolls <input type="checkbox"/> Comics/magazines <input type="checkbox"/> Puppets <input type="checkbox"/> Board/ Card Games <input type="checkbox"/> Dress-up clothes <input type="checkbox"/> Computer Games <input type="checkbox"/> Books <input type="checkbox"/> Clothes <input type="checkbox"/> Furniture <input type="checkbox"/> Caps <input type="checkbox"/> Food <input type="checkbox"/> Shoes <input type="checkbox"/> Stickers <input type="checkbox"/> Candy <input type="checkbox"/> Music tapes/CD's <input type="checkbox"/> Posters Other(Please list in the area below this question) <input type="checkbox"/> Other

Please write the names of computer programs, games or online web sites

What computer programs, video games or website games does your child enjoy playing?
1.
2.
3.
4.

Check ALL that apply:

What language are the television or video programs in?
English <input type="checkbox"/>
Spanish <input type="checkbox"/>
Other <input type="checkbox"/>

APPENDIX B

Cultura Popular Encuesta sobre Los Medios

Género del niño de pre-kinder

Masculino	<input type="checkbox"/>
Femenino	<input type="checkbox"/>

Lista todos los niños siempre en la casa por edad y género (por ejemplo, niño 6, niña 3)

niños	niñas

Marca todos que aplica:

Idioma que hablan en la casa	
ingles	<input type="checkbox"/>
español	<input type="checkbox"/>
otra	<input type="checkbox"/>

Marca una (1):

Numero de adulto en la casa:
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
or more <input type="radio"/>

Marca una:

Niños que viven el la casa:
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
<input type="radio"/>
o mas <input type="radio"/>

Escribe los nombres de las programas:

¿Que programas del televisión/dibujos animados su niño mira mas frecuente?
1.
2.
3.
4.

Escribe los nombres de los programas favoritos (por ejemplo, Cinderella, Snow White, Lion King etc.).

¿que videos/peliculas le gusta ver a su niño?
1.
2.
3.
4.

Marca todos que aplica:

¿que de los siguiente artículos su niño tiene de su favorito personaje del televisión/vidéo?
--

•• Y	munecas
•• Y	caricaturas/revistas
•• Y	títeres
•• Y	juegos de cartas
•• Y	ropa de jugar
•• Y	juegos de computadora
•• Y	libros
•• Y	ropa
•• Y	muebles
•• Y	gorras
•• Y	comida
•• Y	zapatos
•• Y	etiquetas
•• Y	dulces
•• Y	musica / CD's
•• Y	cartelóns
	Otros (marca en el area debajo)
•• Y	otro

escribe los nombres de las programas de computadora, juegos o sitios de internet

¿que programas de computadora, juegos de video o juegos del internet le gusta jugar a su nino?

1.

2.

3.

4.

Marca todo que aplica:

Que es la idioma de los programas que miran sus niños¿

ingles

espanol

otro

Escribe los nombres de los programas

Lista las programas que su nino mira que no sean en ingles.

1.

2.

APPENDIX C

Twenty-First Century Children
 A Questionnaire for Media/Technology
Questionnaire for Parents (Marsh, 2004)

Child resides with

One Parent Parent and Guardian

Two Parents

Extended Family

2. Which of the following does your child have in his/ her bedroom? (Check EACH one that applies)

Television		Desk computer or laptop	
Video / DVD player		Games console e.g. PlayStation or X-box	
A music CD Player or audiocassette		A telephone	

3. Does your child watch TV mostly with someone else, or mostly alone? (Check ONE Box)

Does not watch television	Mostly watches TV on his/ her own	Mostly watches TV with someone else	Don't know

4. How often do you (or another parent/ caregiver, if applicable) watch TV with your child?

(Check ONE Box)

All the time	Most of the time	About half the time	Less than half the time	Never

5. What are your child's favourite TV programmes?

(1)..... (2).....
.....

(3)..... (4).....
.....

6. What are your child's favorite videos/movies?

(1)..... (2).....
.....

(3)..... (4).....
.....

7. Approximately how many of the following does your child own? (Including items shared with others) (Check ONE box for each item)

	0	1-5	6-10	10 - 20	20 - 30	30 - 40	40 or more
Videos/ DVDs							
Computer games							
Music CDs							

8. How many of the following do you have in your household? (Give a number for EACH item)

TV		Desktop computer or laptop	
Video/ DVD player		Video game player e.g. PlayStation, X-box	
Mobile phone		Music CD player	
Radio		Telephone (landline)	

9. Does your child do the following mostly on his/ her own, or with someone else?
(Check ONE box for EACH activity)

	Mostly on own	Mostly with someone else	Child doesn't do this
Watching TV			
Watching a video or DVD			
Listening to music			
Using a desktop computer or laptop			
Playing video games like PlayStation or XBox			
Playing handheld video games e.g. Gameboy			

10. Where does your child do the following, most of the time? (Check ONE box for EACH activity)

	In his/ her bedroom	In the living room	In another room in the house	Child doesn't do this
Watching TV				
Watching a video or DVD				
Listening to music				
Using a desktop computer or laptop				
Playing video games like PlayStation or XBox				
Playing handheld video games e.g. Gameboy				

11. Which of the following does your child do as he/she watches television? (Check ALL that apply)

Sits quietly and concentrates on the TV all of the time	Talks about the programme/ film	
Sits quietly and concentrates on the a lot of the time	Talks about other things	
Sits quietly and concentrates on the some of the time	Talks to the characters on screen	
Plays with toys related to the TV programme/ film	Acts out the story	
Plays with toys not related to the TV programme/ film	Dances	
Sings	Read/ write	

12. Does your child do anything else whilst watching TV?

If so, please tell us what:

.....

13. Do you take part in your child's TV-related play

(e.g. act as a character from a TV program/ film)? (Circle or underline ONE answer):

Often / Sometimes / Occasionally / Never

14. Which are your child's favorite TV/ film characters?

15. Which of the following does your child have that are related to his/ her favorite TV characters? (Check ALL that apply)

Dolls	Comics/ magazines	
Puppets	Games	
Dressing-up clothes	Computer game	
Books	Clothes	
Furniture	Shoes	
Food	Sweets	

What other items does your child own which are related to favorite characters?

16. Do you have satellite or cable TV? (Circle ONE)	Yes	No	Don't know
17. Do you have access to the internet? (Circle ONE)	Yes	No	Don't know

18. If your child visits web sites, which are his/ her favorites?

(1)..... (2).....
 (3).....

19. Do you supervise his/ her use of the internet? (Circle ONE)	Yes	No	Child doesn't use the internet
---	-----	----	--------------------------------

watch a particular TV show or channel							
Asked to watch a particular video or DVD							
Put in a video or DVD by themselves							
	Less than 6 months	6 – 11 months	1 year	2 years	3 years	4 years	
Put in a CD or audiocassette by themselves							
Used a computer on their own							
Used a mouse to point and click							
Put a CD-Rom into a computer							
Looked at websites for children							
Asked to go to a particular website							
Gone to a particular website on							

their own							
Sent an email with help from someone else							
Sent an email by themselves							
Used a mobile phone to make a phone call							
Told someone else when a text message has arrived for them on a mobile phone							
Played with ringtones on a mobile phone							
Pretended to send a text-message on a mobile phone							
Used a camera to take a photograph							
Used a video camera							

(If you want to tell us more about your child and media,
write it on additional sheets and attach!)

APPENDIX D

Cover Letter (English)

Dear Parent or Guardian,

Characters such as *Dora the Explorer* or *Sponge BOB Squarepants* and their slogans are seen everywhere these days. You can find them on clothes, toys, backpacks, lunch boxes and in books. I am studying whether reading the print of these cartoons and video characters will help your child recognize alphabet letters and the way books work, for example how reading words goes from left to right. The print from these cartoons, videos and television characters are called popular culture print. I have received permission from Mrs. Carrillo of Park Village Elementary, Mrs. Susan Peery of Candlewood Elementary, the Judson Independent School District and Texas A and M University to conduct this study in your child's classroom.

The study will compare two ways to teach reading and involve five parts. First I will use a survey to ask parents questions about the types of cartoons or videos that your child watches. You will be asked to list the cartoons or videos they enjoy the most when they are at home. Next, your child will be asked to name alphabet letters and how books work to determine what they have learned so far this year. The third step will be adding the popular culture characters (For example *Dora* or *Sponge BOB*) while teaching early reading skills at Park Village Elementary. Books and materials with the characters (For example *Dora* or *Sponge BOB*) will be provided so the children can read and write about them. The teachers and teacher assistants in the classroom will be teaching letter recognition through this type of print. After nine weeks of using these characters, the children will be asked to recognize letters and the ways books work again. These results

will compare the curriculum using these characters and the curriculum that does not use these characters. After both groups have been asked to recognize letters and the ways books work, the children at Candlewood Elementary will use these characters in their classroom to develop early literacy skills.

Your child will be at no risk during this study. Instead, I am hoping when the children are working with these special character books and print, he or she will become more motivated to read. The children will still be reading literature the school normally uses. These new popular culture character books will be added to the normal classroom activities. After your child has been asked to recognize letters and the way a book works twice, the scores will be recorded. The scores will not use your child's name. If you would like to know how your child did, please call me at Park Village Elementary (210-658-1822) and the scores will be discussed with you.

Your child's participation in recognizing the letters and how books work and your participation in the survey are voluntary. You may choose to withdraw your child at any time. I hope you will choose for your child to participate. I think your child will enjoy the activities and benefit from using the books and materials with popular culture characters. If you have any questions about this study, please don't hesitate to call me at 210-658-1822. If you agree to let your child participate in recognizing letters and how books work, please sign the consent form on the following page, write your child's name and date this paper. Keep one copy for yourself and return the other copy to school. Thank you very much for allowing your child to help me with my study.

Debbie Vera

August 2005

Consent Form (English)

The Use of Popular Culture in Environmental Print to Increase the Emergent Literacy Skills of Pre-Kindergarten Children in One High-Poverty Urban School District

My child has been asked to participate in a research study about the use of popular culture environmental print (For example *Dora the Explorer*; *Sponge BOB Squarepants*) as a part of the normal school literacy curriculum to develop early reading skills. My child was selected to be a possible participant because he or she attends the schools where this study will take place. A total of 80 children and their parents have been asked to participate in this study. Children from two afternoon pre-kindergarten classes at Candlewood Elementary and two afternoon classes at Park Village Elementary will be participating. The purpose of this study is to find a way to help young children increase their recognition of alphabet letters and understand the way books work.

If I agree for my child to be in this study, I will be asked to fill out a survey that names the television programs, videos, computer games, video games and online games that my child uses. My child will be asked to recognize alphabet letters and the ways books work two times (a pre-test and a post-test). They will also be observed while they are learning in the classroom. The children will play with popular culture characters and books during their language and reading time. There are no risks associated with this study. The benefits of this study will be an increased enjoyment of the popular culture items and extra classroom instruction in early literacy skills. I will receive no monetary compensation.

This study is confidential. This means that the scores from the tests will be identified by numerals only and the records will be kept private. Even if the study is published, it will not use my child's name or the parent's name. Research records will be securely stored and only the researcher, Debbie Vera, will have access to the records. My decision whether or not to participate will not affect my child's or my current or future relations with Judson Independent School District or Texas A&M University. If I decide to participate in the survey and testing, I am free to refuse to answer any questions that may make me uncomfortable. I can contact Debbie Vera at Park Village Elementary (210-653-1822) or Dr. Norvella Carter at Texas A&M University (979-862-3802) with any questions about this study.

This research study has been reviewed and approved by the Institutional Review Board- Human Subjects I Research, Texas A&M University. For research-related problems or questions regarding my rights or my child's rights, I can contact the Institutional Review Board through Dr. Michael W. Buckley, Director of Research Compliance, Office of Vice President for Research at (979-458-4067) or through email at *mwbuckley@tamu.edu*.

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily consent to have my child tested on alphabet recognition and print concepts in this study. I have been given a copy of this consent form.

Signature of Parent

Name of Child

Date

(Spanish Consent Form) Forma De Consentimiento

El uso de Cultura popular en la impresión ambiental para aumentar las habilidades inesperadas de la instrucción de Niños del Pre-kinder de la infancia en una Alto Pobreza Distrito Urbano De la Escuela

Han invitado a mi niño que participe en un estudio de la investigación sobre el uso de la cultura popular ambiental imprima (por ejemplo *Dora La exploradora*; *Espanja BOB Squarepants*) como pieza del plan de estudios normales de la instrucción de la escuela para desarrollar habilidades tempranas de la lectura. Me seleccionaron al niño ser un participante posible porque él o ella atiende a las escuelas donde ocurrirá este estudio. Un total de 80 niños y sus padres se han pedido participar en este estudio. Niños de Candlewood de y Park Village participarán. El propósito de este estudio es encontrar una manera de ayudar a niños jóvenes a aumentar su reconocimiento del alfabeto las letras y que entienden como se usan y se leen los libros.

Si estoy de acuerdo que mi niño participe en este estudio, me pedirán completar un examen que nombra programas de television, videos, juegos de computadora, juegos video y juegos en línea que mi niño usa. Pedirán que mi niño reconozca letras del alfabeto y usar y leer libros dos veces (una preprueba y un post-test). También serán observados mientras que están aprendiendo en la sala de clase. Los niños jugarán con caracteres populares y los libros durante su tiempo de la lectura. No hay riesgos que se asociaron a este estudio. Las ventajas de este estudio serán que mas disfrute de los artículos populares de la cultura y de la instrucción de sala de clase adicional en la instrucción. No recibiré ninguna remuneración monetaria.

Este estudio es confidencial. Esto significa que las cuentas de las pruebas serán identificadas por números solamente y los resultados serán mantenidos privados. Incluso si se publica el estudio, no utilizará nombre de mi niño o el nombre del padre. Los resultados de la investigación estarán seguros y solamente la investigadora, Debbie Vera, tendrá acceso a los resultados. Mi decisión si o no participar no afectará mi niño o mis relaciones presentes o futuras con el Distrito Independiente de las Escuelas de Judson o la universidad de Texas A&M. Si decido participar en el examen y la prueba, estoy libre para rechazar contestar a cualesquiera preguntas que puedan hacerme incómodo. Puedo hacer contacto con Debbie Vera en la escuela de Park Village (210-653-1058) o con la Dra. Norvella Carter en la Universidad de Texas A&M (979-862-3802) si tengo preguntas sobre este estudio.

Este estudio de la investigación ha sido repasado y aprobado por la Universidad De Tejas A&M y el comité de "Institutional Review Board". Para las problemas o las preguntas con respecto a mis derechos o a los derechos de mi niño, puedo hacer contacto con el "Review Board" a través del Dr. Michael W. Buckley, director de la conformidad de la investigación, oficina del Vice Presidente para la investigación en 979-458-4067 o a través del email en *mwbuckley@tamu.edu*.

He leído y entiendo las explicaciones proporcionada a mí. He tenido todas mis preguntas contestadas a mi satisfacción, y yo doy permiso voluntariamente tener mi niño probado en alfabeto conceptos del reconocimiento y de la impresión en este estudio. Me han dado una copia de esta forma del consentimiento.

-----Firma del nombre del padre del niño,

Fecha

APPENDIX E

Alphabet Knowledge

Name: _____ Date _____ School: Candlewood/ Park Village

Pre-test / Post-test _____ Examiner: Vickie Moon-Merchant, Ph. D.

A	F	K	P	W	Z
B	H	O	J	U	
C	y	L	Q	M	
D	N	S	X	I	
E	G	R	V	T	

Raw Score of capital letters: /26

Percentage:

APPENDIX F

Print Concepts Assessment

Preschool Word and Print Awareness Assessment: Part 1: Print Concepts (L.M. Justice and H. K. Ezell)

Directions: Present the following tasks in the order depicted below. Read the test presented on the page and then administer the task.

Each item may be repeated one time. Do not prompt or reinforce the child in any way. Book: Nine Ducks Nine (Hayes, 1990)

Name: _____ Date _____ School: Candlewood / Park Village

Raw Score: 18

Gender: _____ Birthdate: _____ Pre-Test / Post-Test Examiner: Vickie Moon Merchant, Ph.D.

Concept	Book Part	Administrator's Task	0	1 Point	2 Points	Comments /Cues
1. Front of Book	Cover	Show me the front of the book		(Turns book to front or points to front)	xxx	
2. Title of Book	Cover	Show me the name of the book.		(Points to 1 or more words in title)	xxx	
3. Role of title	Cover	What do you think it says?		(Explains role of title-what book about)	(Says 1 or more words in title)	
4. Print not pictures	Pg. 1-2	Where do I begin to read?		(Points to any part of text)	(Points to 1 st word, top line)	(If incorrect, point and Say: "I begin to read here.")
5. Directionality	Pg. 1-2	Which way do I read?		(Sweeps top to bottom)	(Sweeps l to r)	
6. Contextualized print	Pg. 3-4	Show me where one of the ducks is talking.		(Points to print in pictures)	xxx	
7. Directionality (Left to right)	Pg. 5-6	Do I read this pg (left pg.) or this pg. (right pg.) first?		(Points to left pg.)	xxxx	
8. Directionality (Top to bottom)	Pg. 7-8	There are 4 lines on this page. Which 1 do I read first?		(Points to top line)	xxxx	(If incorrect point to 1 st line. Say: "I read this one first.")
9. Directionality (Top to bottom)	Pg. 7-8	Which one do I read last?		(Points to last line)	xxx	
10. Print function	Pg. 9-10	(Point to words spoken by ducks Why are all the words in the water?)		(Tells that words are what ducks said)	xxx	Child's response:
11. Letter concept	Pg. 11-12	A. Show me one letter on this page.		(Points to 1 letter)	xxx	
		B. Show me the 1 st letter on this page.		(Point to 1 st letter)		
		C. Now show me a capital letter.		(Points to capital letter)		
12. Print function	Pg. 23-24	"And the fox says, 'stupid, ducks.'" Where does it say that?		(Points to other print)	(Points to fox's words)	

APPENDIX G

Observation Recording Sheet

Print Concepts and Alphabet Recognition Intervention Objectives Date _____

Week	Print Concepts Objectives (PCEP in original form)	Observed	Alphabet Recognition Objectives
	The students will identify:		Identify:
	Book Cover		a. Letters
1-9	a. the front of a book		List:
1-9	b. location of the name of the book		
1-9	c. where to begin to read		
1-9	d. what the title of the book says		
	Words:		
1-9	a. are made of letters		
1-9	b. location of the first letter of a word		b. Capital letters
1-9	c. where a capital letter is		List:
1-9	d. name of capital letter		
	Print concepts:		
1-9	a. where to begin reading words		
2-9	b. moves from left to right		
4-9	c. contextualized print- point to text in pictures		
3-9	d. directionality on two pages		
5-9	e. directionality top to bottom		
4-9	f. print function- why are the words there		
4-9	g. print function- where are the words		

APPENDIX H

Week Two PCEP Intervention Activity

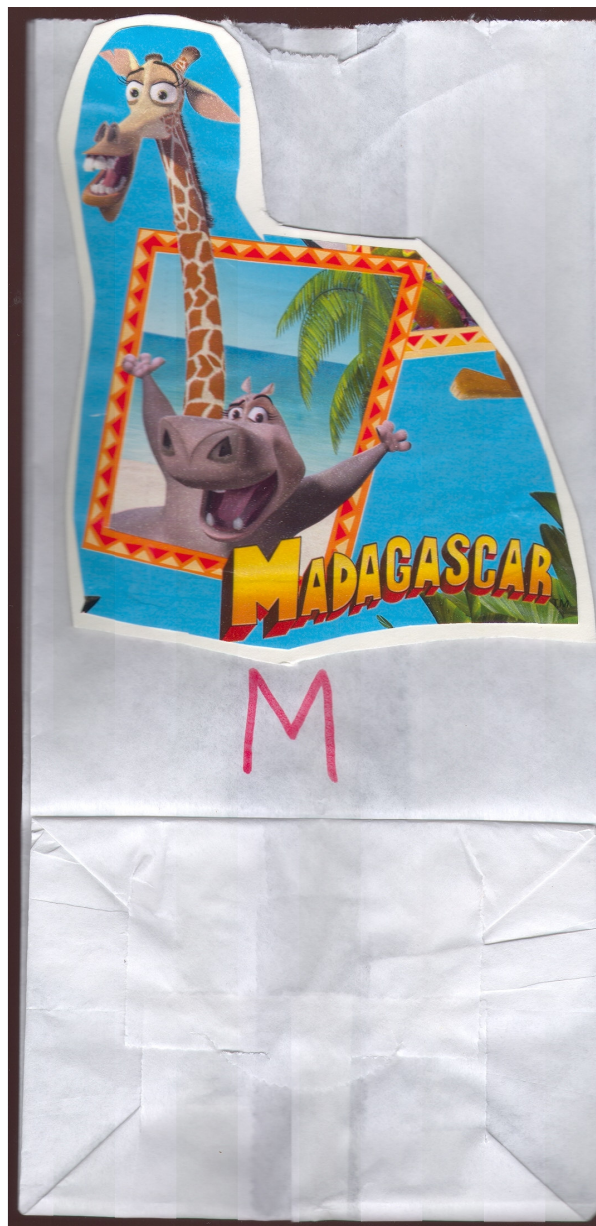
Picture/ logo Bag Book



APPENDIX I

Week Four PCEP Intervention Activity

Mail Sack



APPENDIX J

Week Four PCEP Intervention Activity

"Voice Bubble"



APPENDIX K

Week Five PCEP Intervention Activity

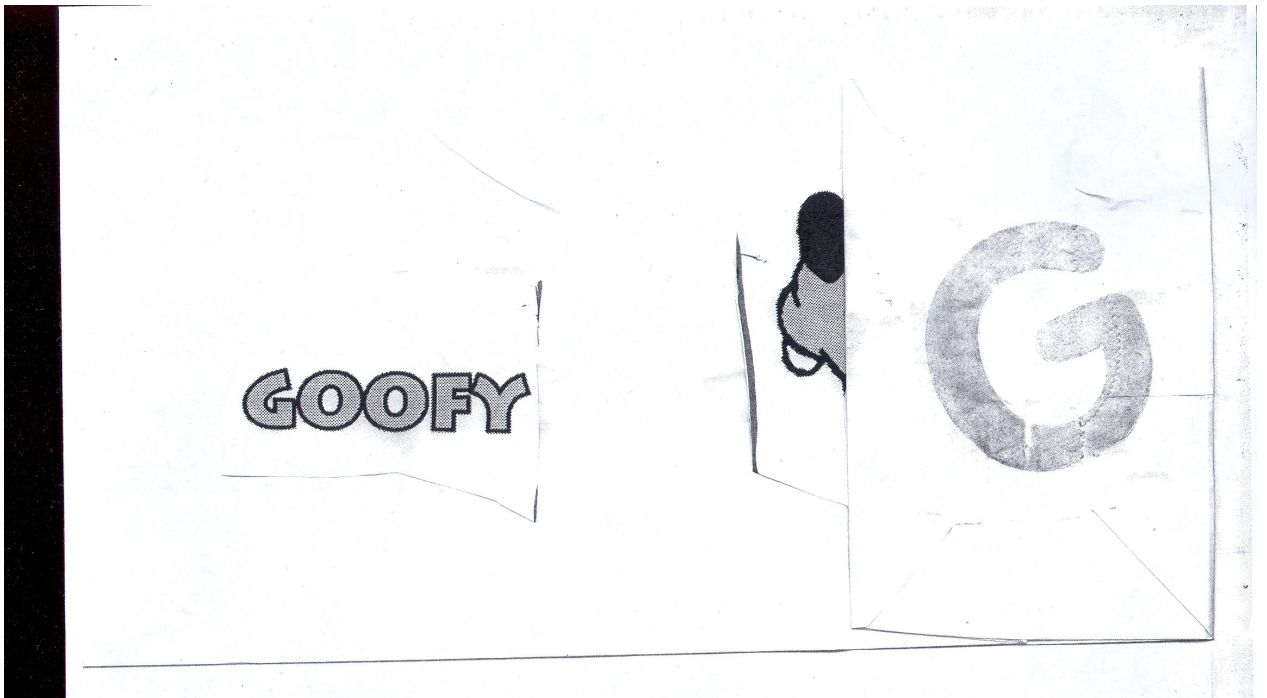
Folder Game



APPENDIX L

Week Five PCEP Intervention Activity

Logo and Letter Book Bag

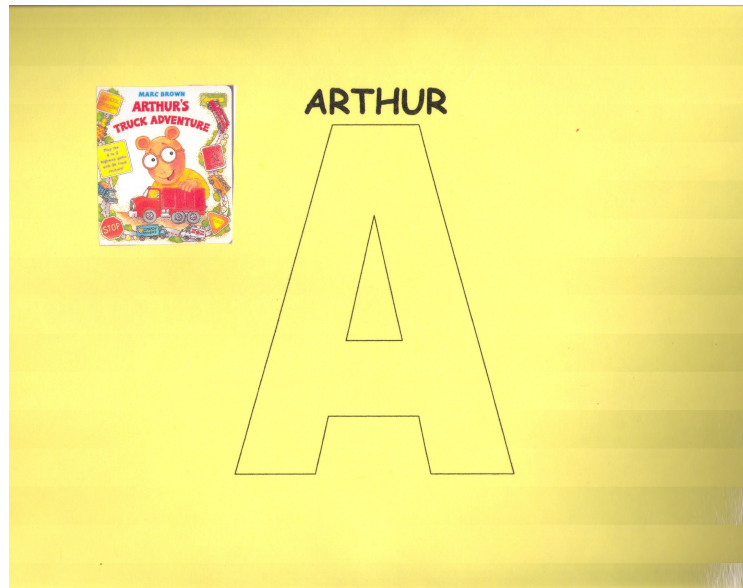


APPENDIX M

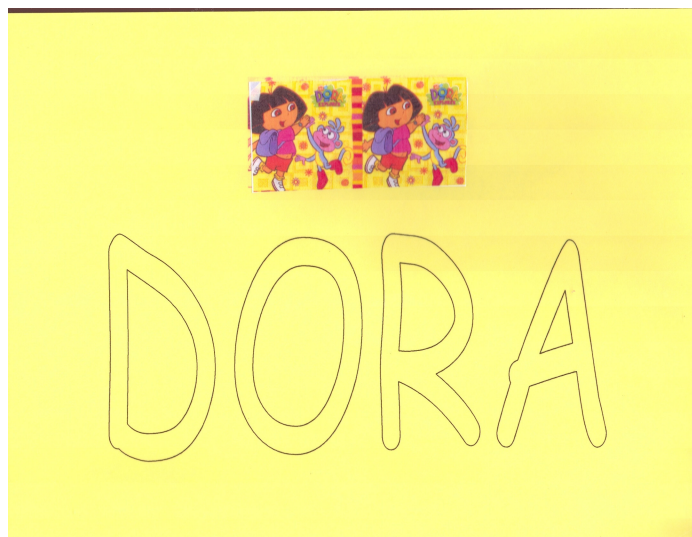
Week Six PCEP Intervention Activity

Modeling Dough Cards

Letter Card



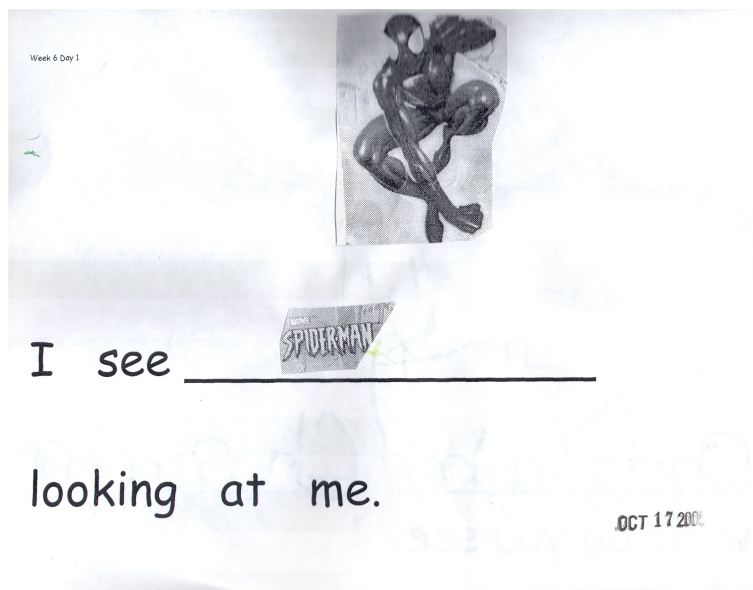
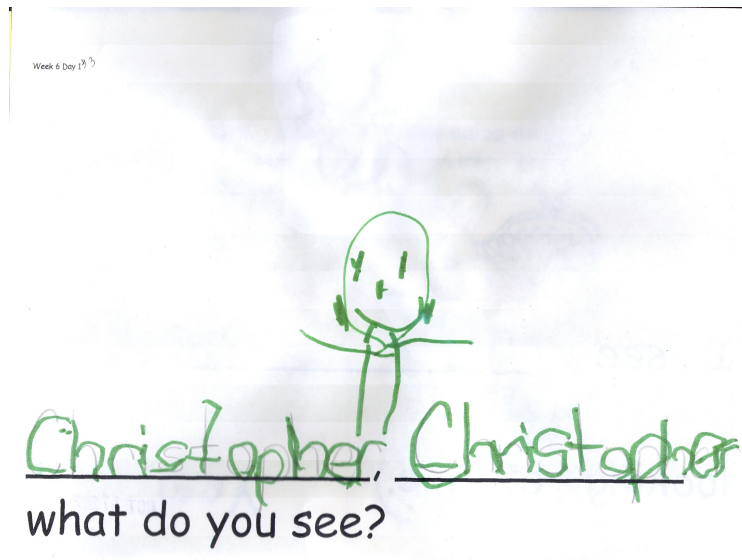
Word Card



APPENDIX N

Week Six PCEP Intervention Activity

Book Adaptation

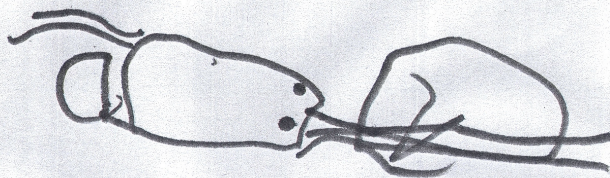


APPENDIX O

Week Six PCEP Intervention Activity

Book Adaptation

Who took the cookie from
the cookie jar?



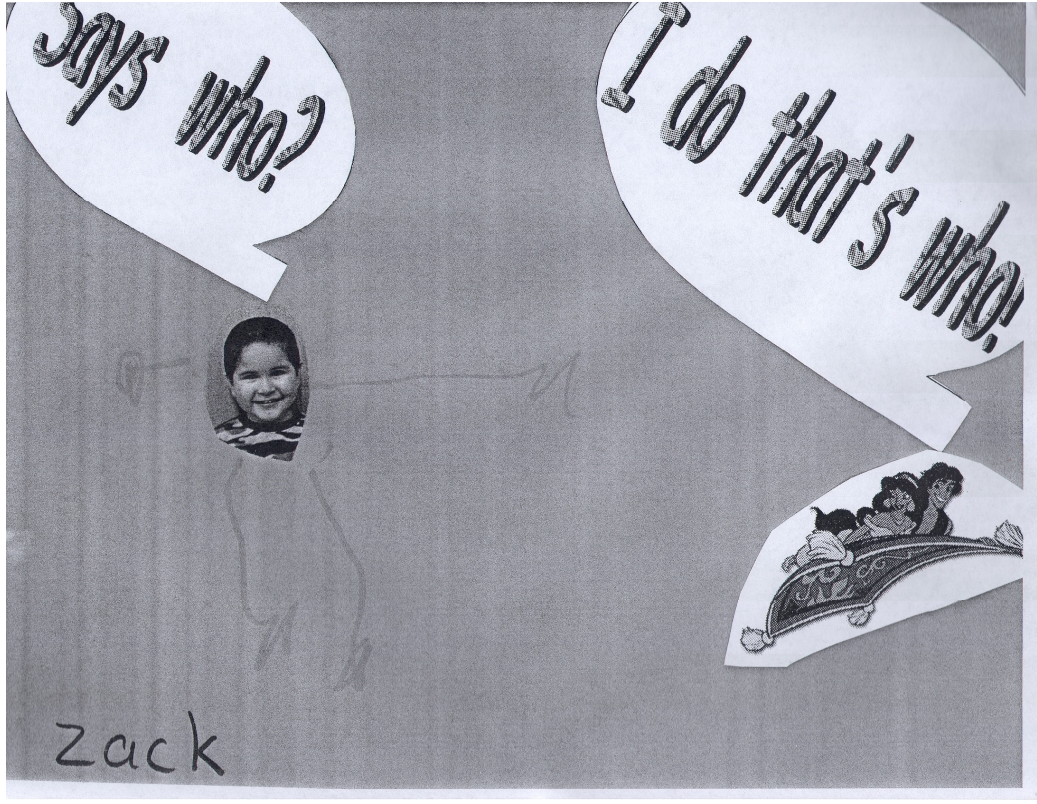
OCT 19 2005

I Dora took the
cookie from the cookie jar?
Says who? I do, that's who!

APPENDIX P

Week Six PCEP Intervention

Poem Adaptation and Voice Bubble



APPENDIX Q

Week Seven PCEP Intervention Activity

Plastic Letter Cards



NEMO

BATMAN




APPENDIX R

Week Eight PCEP Intervention Activity

Book Adaptation

Breanna, Breanna
Whose do you see?



I see Dora
looking at me! to pndool

APPENDIX S

Week Eight PCEP Intervention Activity

Poem (*Jack Be Nimble*) Adaptation

Week 8 Day 3

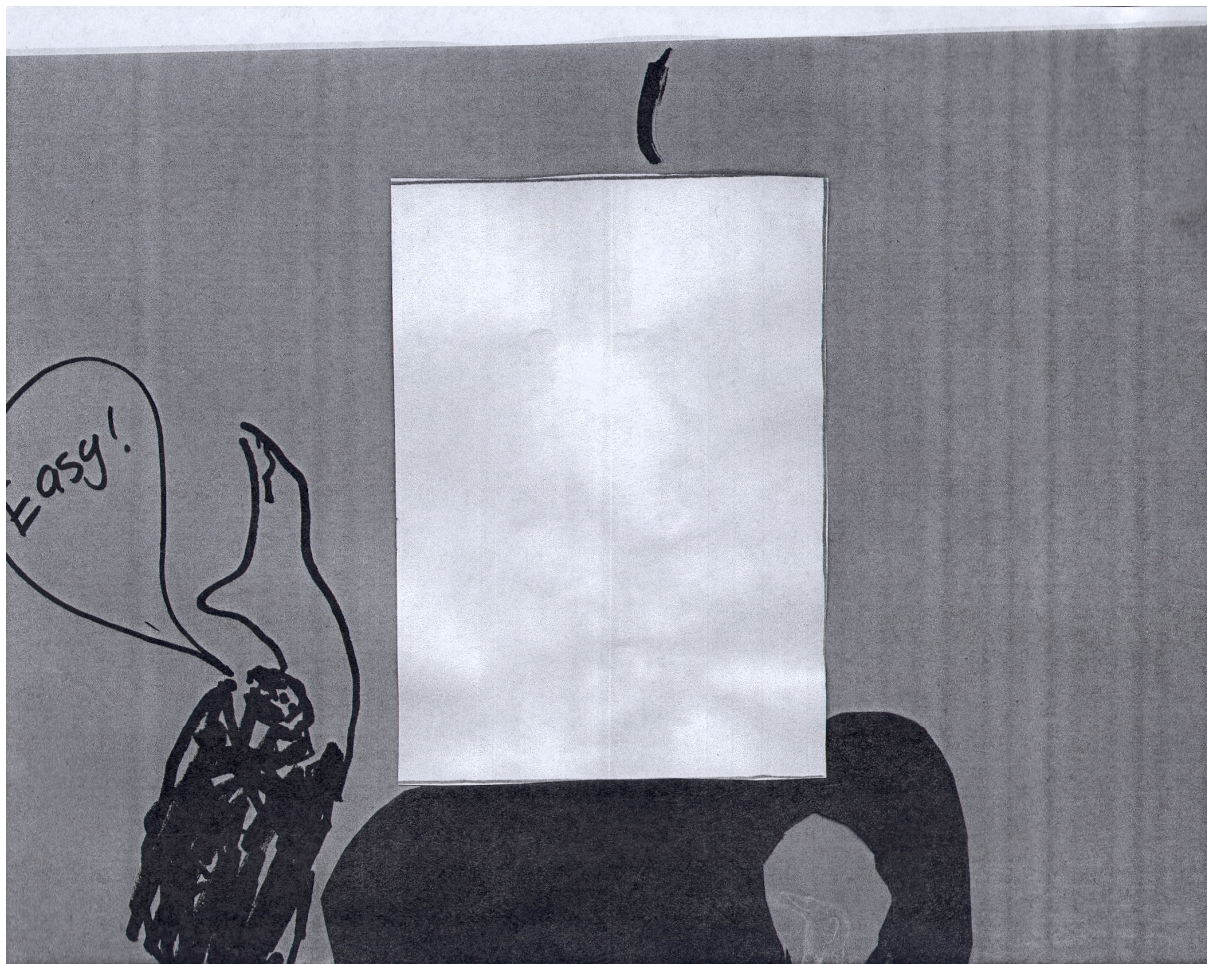
Jack be nimble.
Jack be quick.
Jack jump over
the candlestick.

Trina

APPENDIX T

Week Nine PCEP Intervention Activity

Poem (*Jack Be Nimble*) Adaptation and Voice Bubble



APPENDIX U

Interview Protocol Control Group Teachers

1. Which emergent literacy skills were taught last fall in pre-kindergarten? (AK & PC)
2. What methods/strategies were used to teach these objectives?
3. How often were alphabet letters introduced?
4. How many letters were taught per week?
5. What methods were used to teach the alphabet letters?
6. What kinds of centers were used to teach AK?
7. What materials were used to teach alphabet letters?
8. What methods were used to reinforce the children's knowledge of letters?
9. Did the alphabet curriculum spiral?
10. Was any type environmental print used to teach AK?
11. How did the children use environmental print?
12. Is there anything else to add regarding teaching the alphabet that hasn't been covered in the previous questions?
13. How were the children familiarized with the layout of a book (PC)?
14. Describe the skills taught to familiarize a book layout (PC) to the children?
15. Were any of the following skills taught? (List from PWPA (Justice, 2006) utilized)
16. What methods were used to teach print concept skills?
17. How was guided reading used?
18. How often were print concepts introduced?
19. How many print concepts were taught per week?
20. How were these PC skills reinforced?
21. What materials were used to teach these skills?
22. Was environmental print used to teach Print Concepts?
23. How was environmental print used to teach PC?
24. Is there anything else to add regarding PC that hasn't been covered in the previous questions?
25. Did you use popular culture environmental print?
26. How did the teachers/instructional aides interact with the children when teaching alphabet knowledge and/or print concepts?
27. How did the children interact with each other when they were learning about AK or PC?
28. How were AK and PC skills remediated for children who had a difficult time learning them?

APPENDIX V

Normality Research Question 1

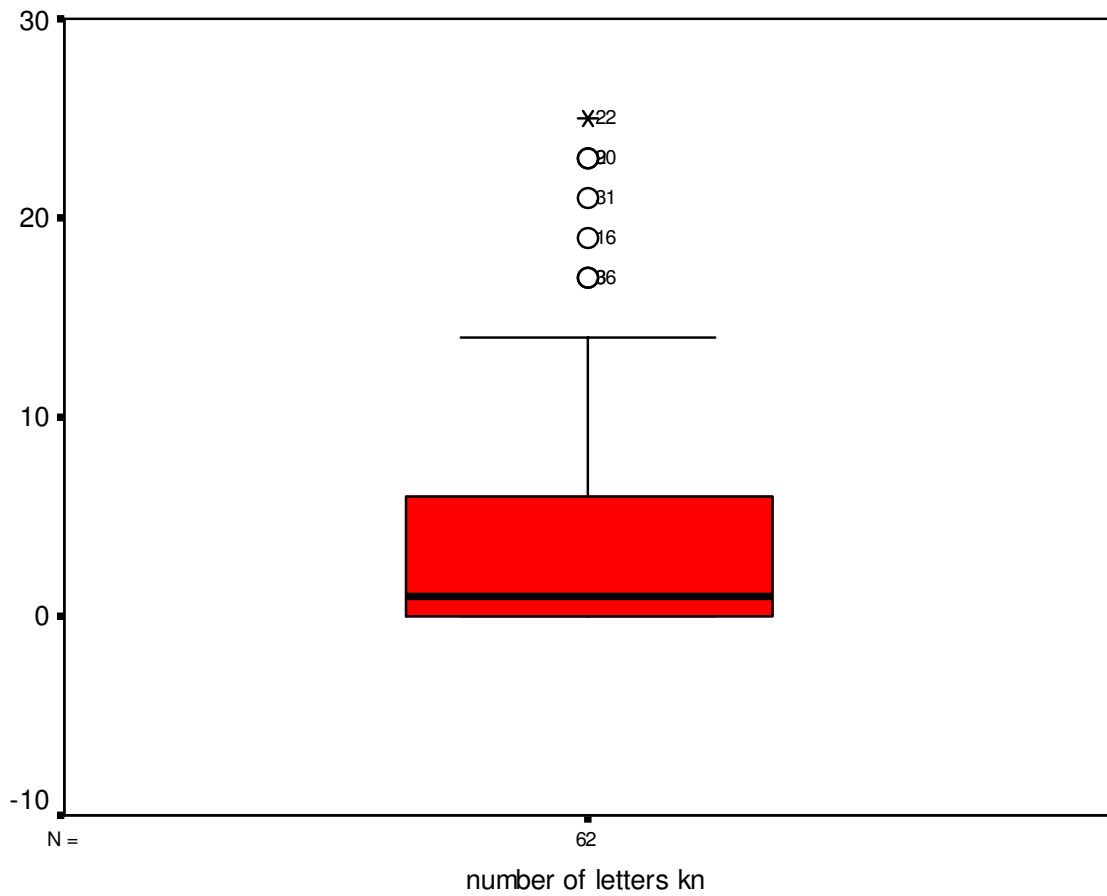


Figure V.1 Box-plot Alphabet Knowledge Overall Growth Both Groups

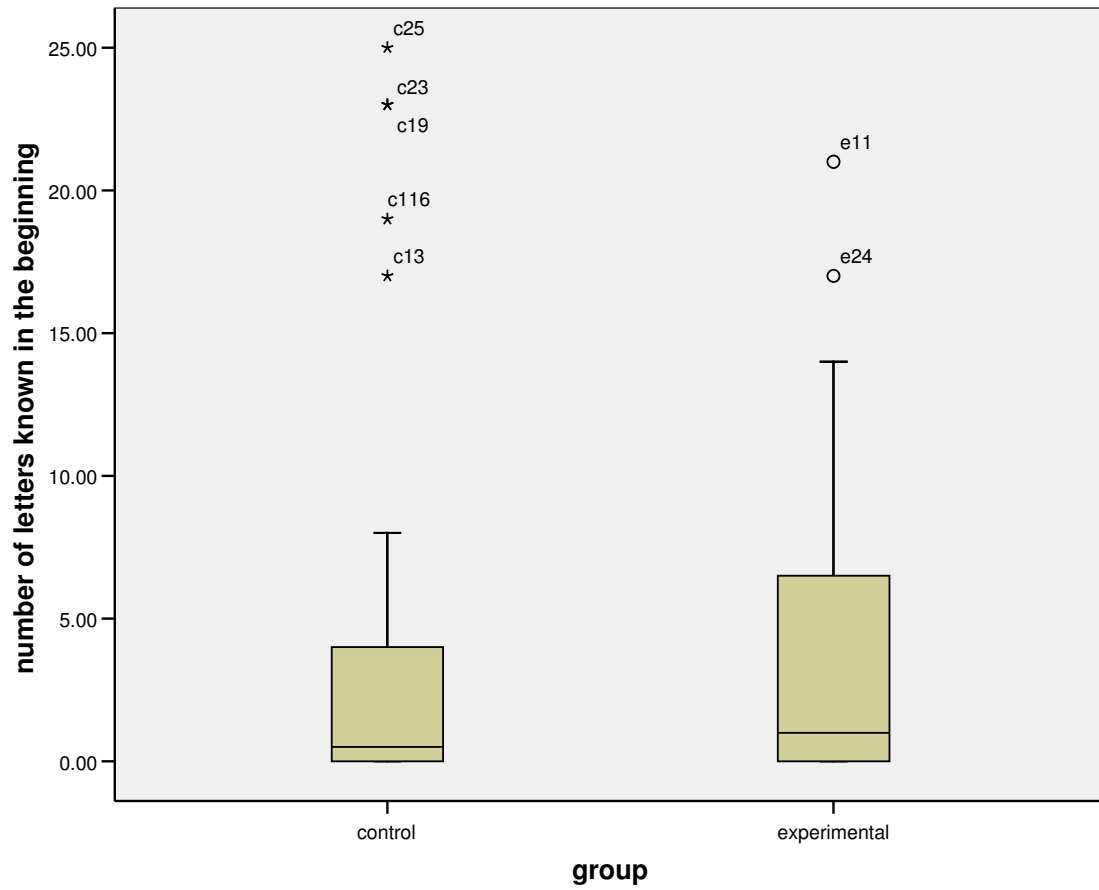


Figure V.2 **Box-plots Pre-test Alphabet Knowledge N = 62**

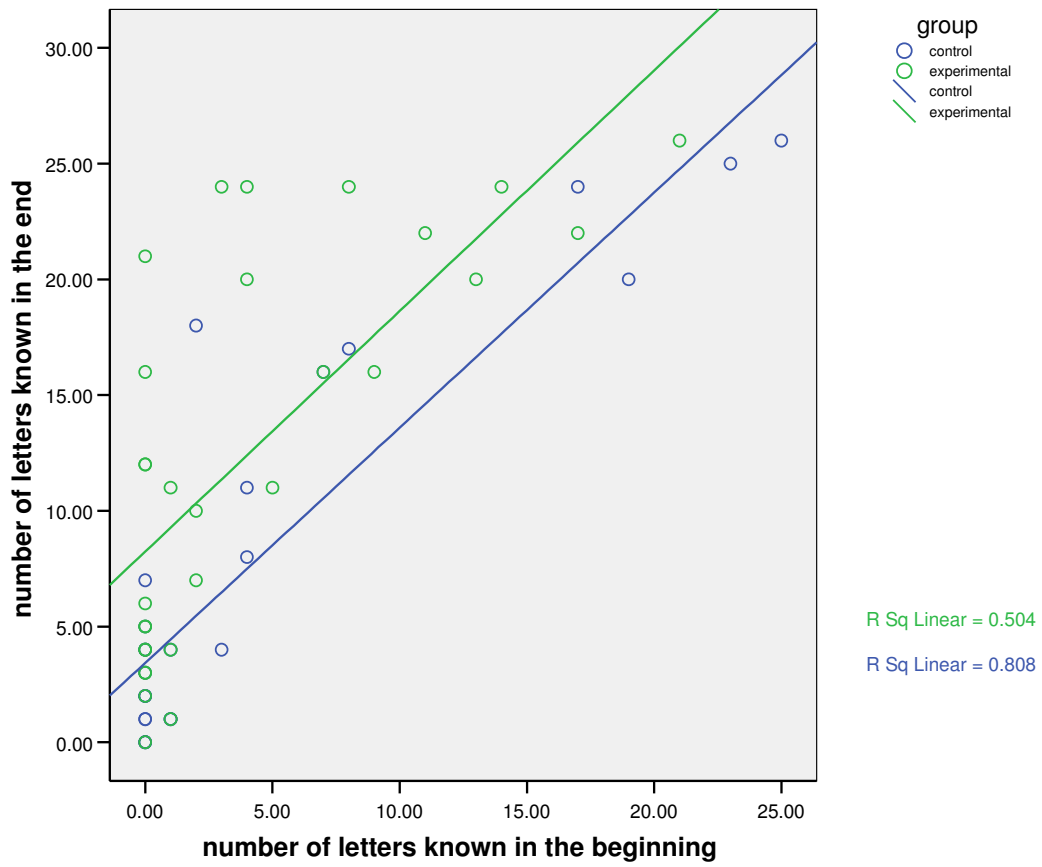


Figure V.3 Homogeneity of Regression Slopes Alphabet Knowledge Both Groups

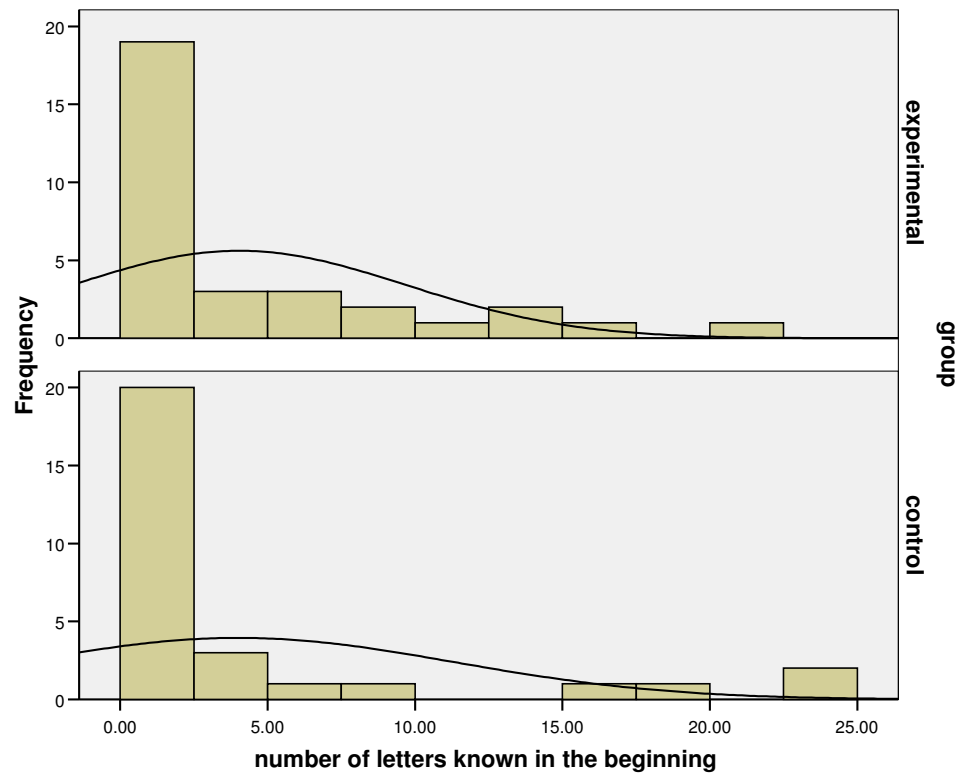


Figure V.4 Histograms Alphabet Knowledge Pre-test

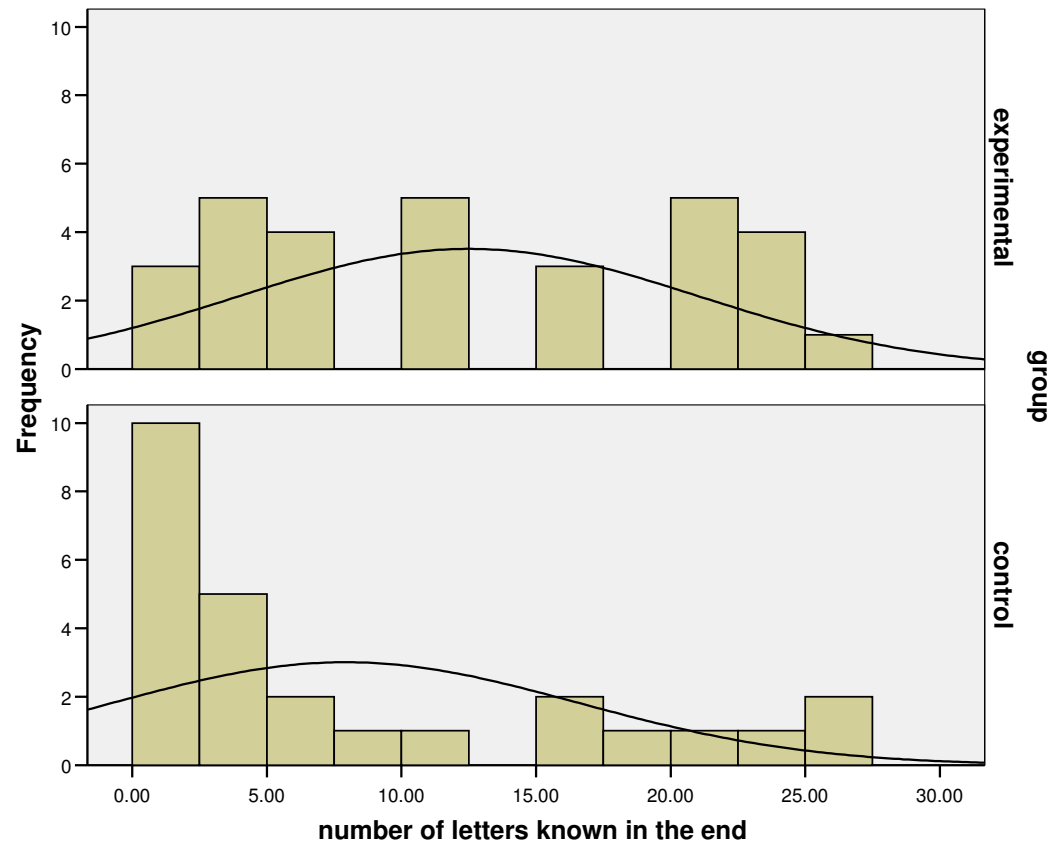


Figure V.5 Histograms Alphabet Knowledge Post-test

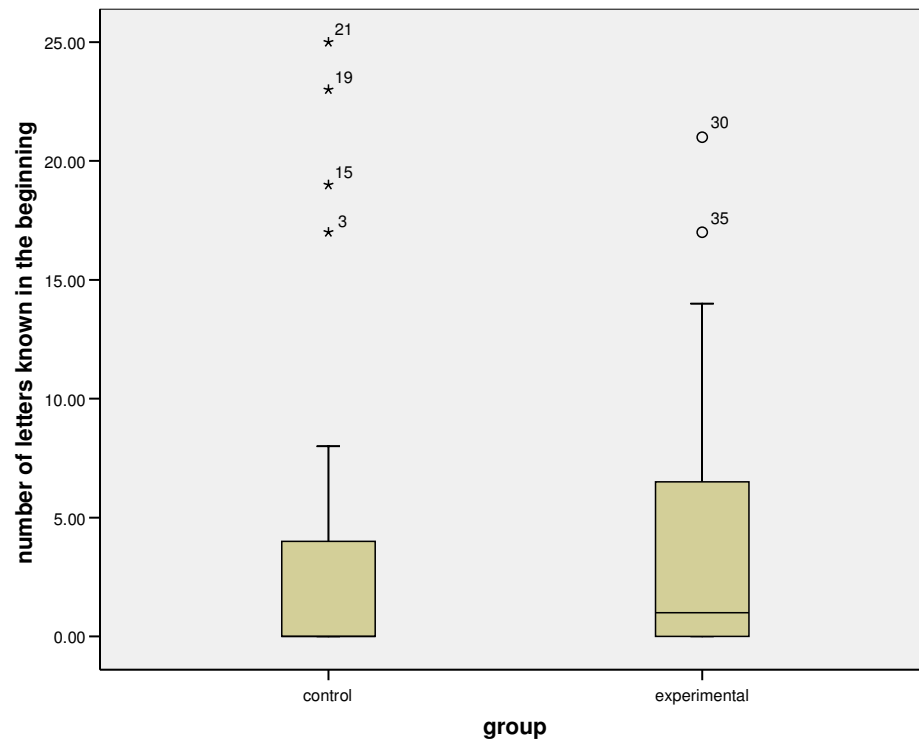


Figure V.6 **Box-plots Alphabet Knowledge Pre-test N = 61**

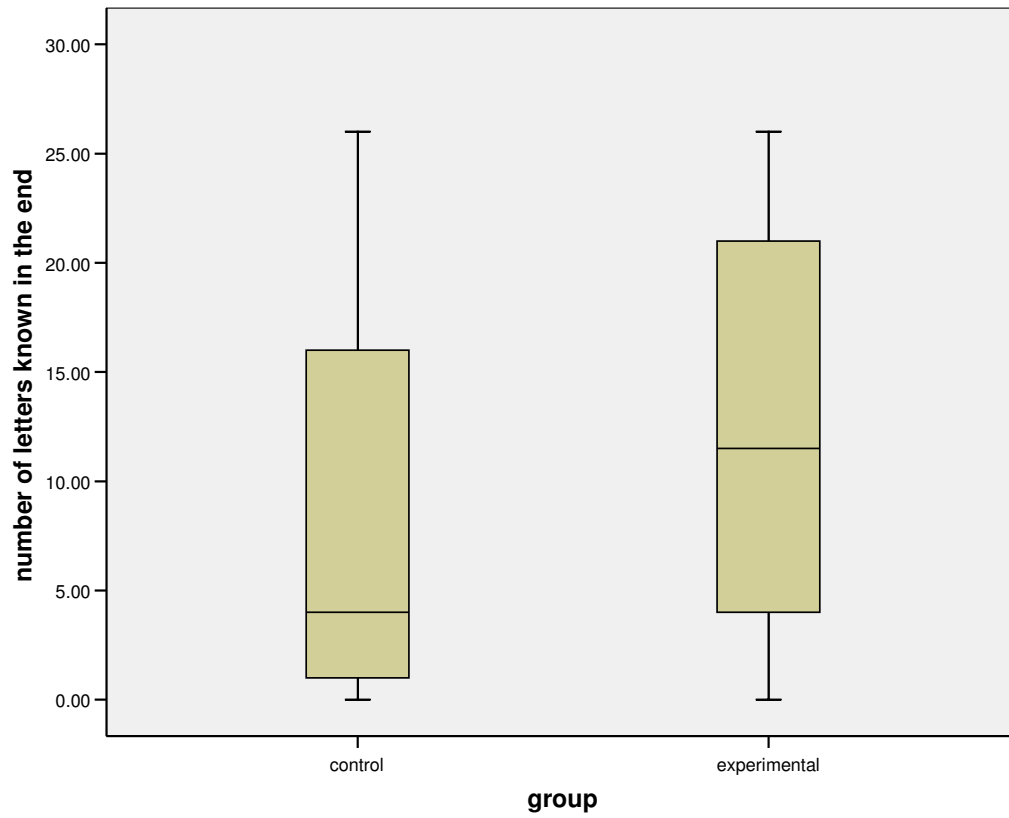


Figure V.7 **Box-plots Alphabet Knowledge Post-test**

APPENDIX W

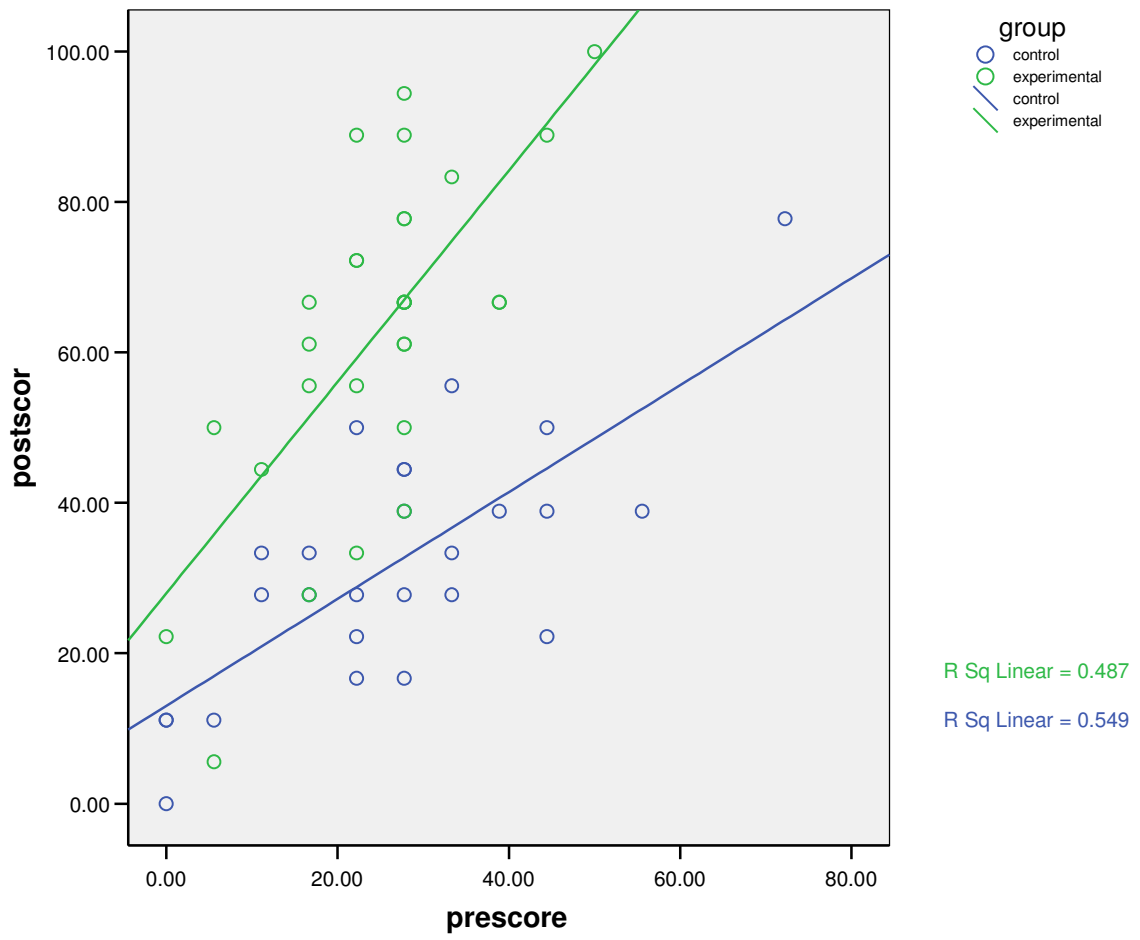


Figure W.1 Homogeneity of Regression Slopes Print Concepts Both Groups

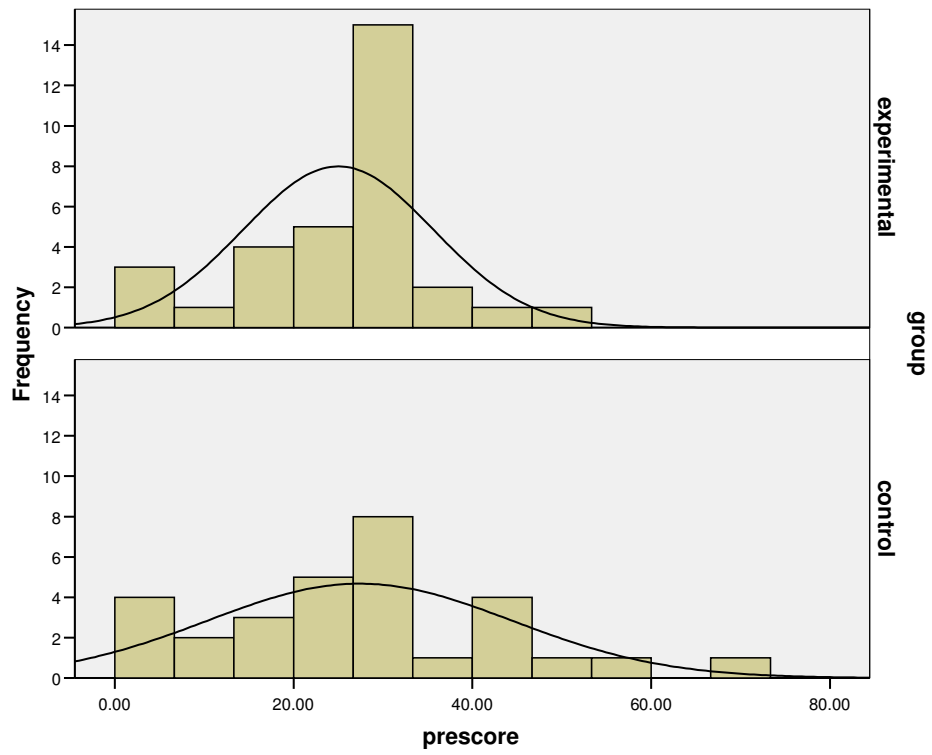


Figure W.2 Histogram Pre-test Print Concepts

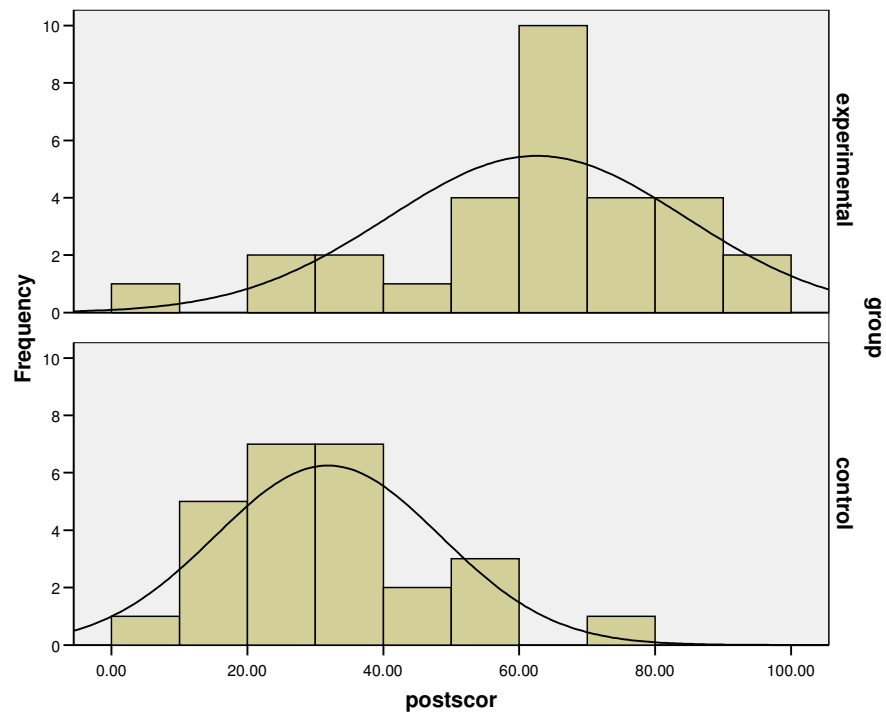


Figure W.3 Histogram Post-test Print Concepts

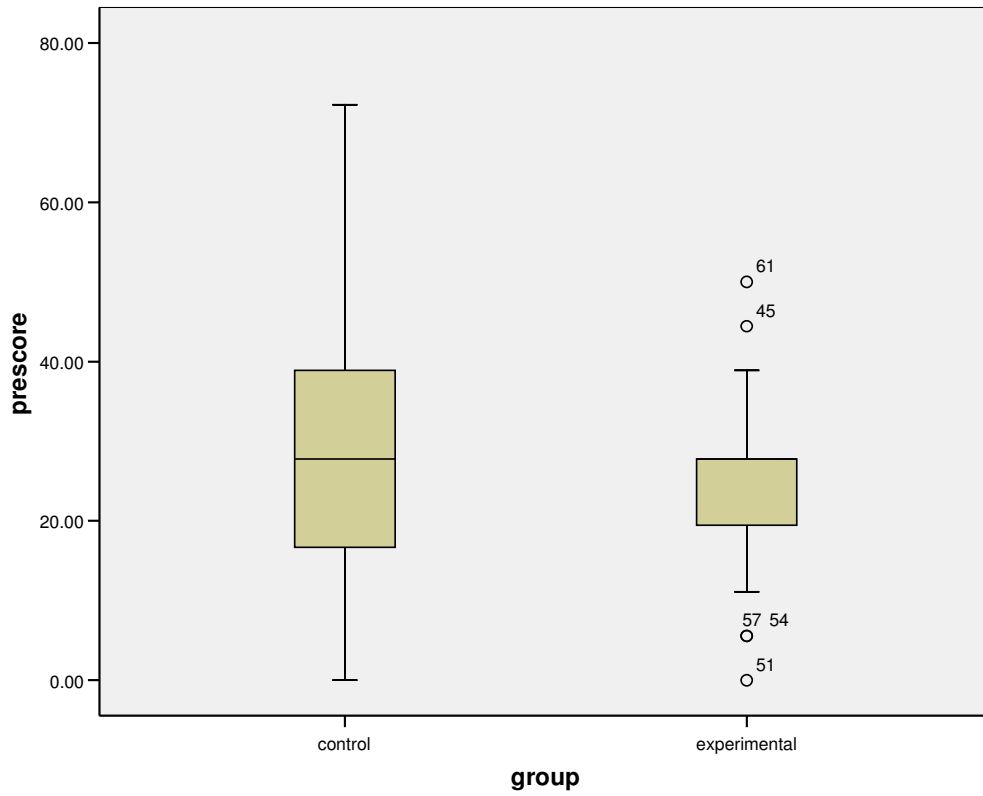


Figure W.4 **Box-plots Pre-test Print Concepts**

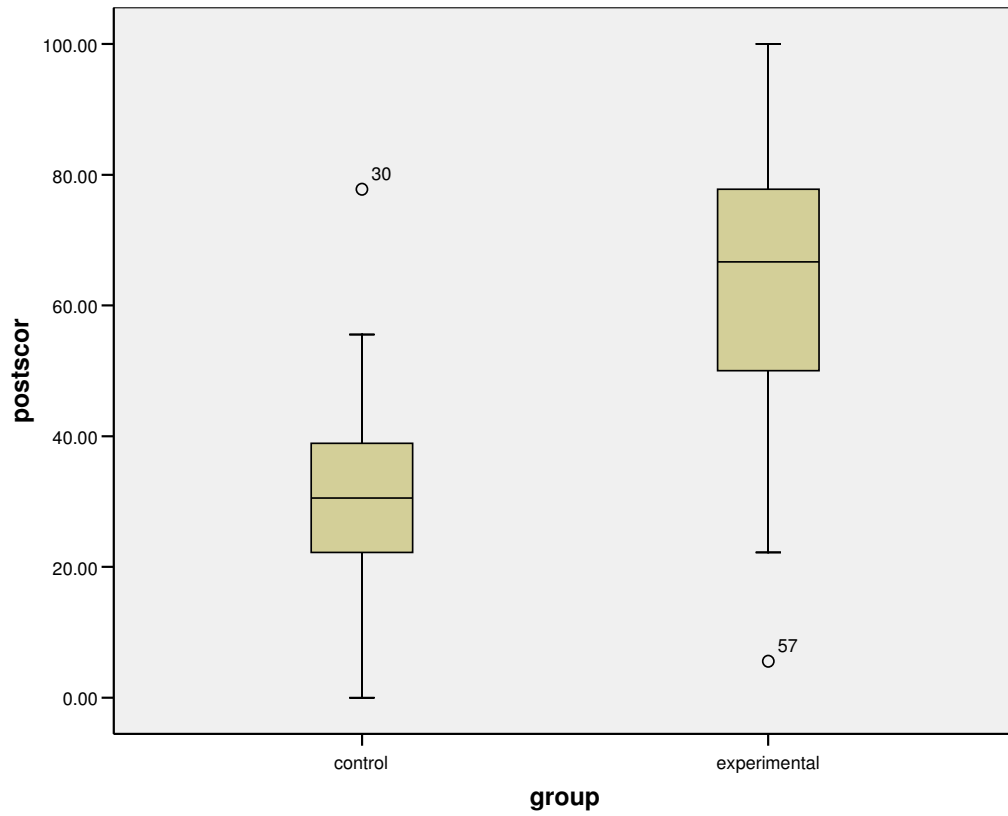


Figure W.5 **Box-plots Post-test Print Concepts**

VITA

Name: Debbie Vera

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San Antonio, TX. 78247

Email Address: dveraccg@yahoo.com

Education: B.S. Oklahoma State University 1979
M.S. Texas A&M Corpus Christi 1999