
A Comprehensive Emergent Literacy Program for Inner-City Latino Preschoolers: Perspectives and Practices

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Abstract

The present study looked at 84 preschoolers at a daycare center serving predominantly low-socioeconomic status (SES), Latinos in downtown Los Angeles. The primary purposes of the present study were to examine effects of different emergent literacy interventions on this rapidly growing student population. Results indicated that students significantly improved on Clay's *Concepts About Print* test from pretest to posttest. Evaluations conducted in Spanish in the present study provide insight into how second language learners can improve their early conceptualizations of reading with increased access to reading materials in their primary language. Improvements on specific conceptualizations are also discussed.

A Comprehensive Emergent Literacy Program for Inner-City Latino Preschoolers: Perspectives and Practices

The present study sought to explore and describe how young (at age four) Latino children's early exposure to books through a voluntary, home intervention, and a classroom early literacy program impacted their early conceptualizations of reading. The primary purposes of the study were to examine: (a) what early conceptualizations these children have of reading, (b) how students' personal participation in a Book-Loan Program affected their early reading conceptualizations, and (c) what areas of children's early reading conceptualizations were or were not significantly affected as a result of early literacy interventions at preschool.

By examining the results of an emergent literacy measurement administered to preschool students in Spanish at an inner-city daycare facility, the study was meant to extend research on at-risk youth's early conceptualizations of reading. The influence of personal variables such as the number of months of participation in a voluntary Book-Loan Program, total number of books checked out in that program, and the average number of books checked out per month was also examined. In addition, all items of an emergent literacy measure of children's early reading conceptualizations were analyzed to determine what, if any, areas showed significant improvement for children who participated in an early literacy program at their daycare facility. Further, this study built on research conducted mainly abroad (Ferreiro & Teberosky, 1982; Goodman, 1986),

which examined the role of increased literacy opportunities at preschools on students' early reading conceptualizations in their primary language. As federal and state educational reform has pushed for greater achievement and quality instructional programs at the preschool level, this study sought to provide data emphasizing what effects, if any, increased emergent literacy activities had on low-socioeconomic status (SES) Latino preschool students' conceptualizations of reading.

Shifts in the labor force have spurred unprecedented changes to the landscape of American society (Bureau of the Census, 1987, 1990, 1993, 1997). Presently, almost 80% of mothers with children under the age of five have entered full-time employment, fueling an unprecedented need for child daycare and preschool education services (Schuman & Relihan, 1990). Particularly, daycare centers and preschools have begun to play a more prominent role in providing young children with literacy experiences. Accessibility to reading materials has also become of greater concern to these programs. This early exposure to print takes on even greater importance among students from culturally diverse and low-SES environments (August & Hakuta, 1997).

In spite of a variety of federal programs aimed at assisting these students, the number of children considered to be at-risk of educational failure has continued to grow dramatically (Morra, 1994). Significant differences in later reading achievement have been found between low-SES and middle- to upper-SES students (Lonigan, Burgess, Anthony, & Barker, 1998), prompting an ever widening gap that places low-SES students at a significant educational disadvantage to their peers (Juel, 1988; Stanovich, 1986). Carr (1994) found that limited opportunities with print are more likely to exist in the homes of low-SES students and second language learners. Young students who have limited access to reading materials have been found to have less motivation to read (Baker, Afflerbach, & Reinking, 1996), which negatively affects at-risk students' reading achievement throughout their subsequent schooling.

Latino students are the most rapidly growing student population group in the U.S. (Department of Commerce, 1991; Populations Projections Program, 2000), and at-risk Latino children, in particular, have been identified as being in need of early educational interventions at preschools and daycare centers (Department of Education, 1992). Faced with a variety of economic and language barriers, many young Latino children have become overwhelmed. Consequently, Latino preschoolers often find themselves behind their peers upon entry into primary school, forcing them to constantly play catch up (Stanovich, 1986). A disproportionate number of these students suffer later academic failure (De la Rosa & Maw, 1990; National Center for Educational Statistics, 1996), forcing researchers to examine interventions and assessments that may help prevent future educational difficulties.

Early home literacy experiences have been shown to vary greatly, especially among different lower-income communities (Heath, 1983; Snow, Burns, & Griffin, 1998). Allington and Cunningham (1996) pointed out that several surveys of American primary school teachers have revealed that their greatest educational concern is the fact that many students, primarily those who are classified as being at-risk, are not yet ready when they enter school. Many students simply have much more limited literacy experiences and opportunities than others, causing them to have a disadvantage upon entering school. McCormick and Mason (1986), for example, found that just over half of low-SES parents provided alphabet books in the homes of their preschoolers, as opposed to almost all more affluent parents. Heath (1983), on the contrary, argued that the home literacy experiences of two groups of low-SES students she observed in longitudinal study were plentiful but often different from the behaviors reinforced in

school, but she also noted that a limited amount of literacy materials existed in the homes she studied. Research (Baker, Afflerbach, & Reinking, 1996; Goldenberg, 1989; Sonnenschein, Brody, & Munsterman, 1996) has shown that when a wide range of literacy materials in the home exists and parents read with their children, children read more. Increased exposure to books in the home has also been shown to lead to increased reading achievement at school (Goldenberg, Reese, & Gallimore, 1992).

The literacy resources schools provide children are obviously important in considering children's emergent literacy development. Many studies have shown how students from lower-income areas are negatively affected by limited literacy materials in their daycare centers (Neuman, 1999). Trying to prevent a major discrepancy between the haves and the have-nots as young children enter primary school, researchers have begun to examine the role daycare centers can play in the literacy development of at-risk students. Since middle-class and upper-class students are considered to have greater access to books in the home and at the educational facilities they attend (Constantino, 1995; Smith, Constantino, & Krashen, 1996), a greater emphasis in educational research has been placed on examining the experiences and abilities of lower SES students.

The impact of increased reading materials made accessible to low-SES students has become of particular interest since these students comprise the majority of the preschool population (Marx & Seligson, 1988). In several studies of students in developing countries (Elley, 1998; Greaney, 1996), it was shown that increased access to books at school increases low-SES students' literacy capabilities. Here in the U.S., the increased availability of books to students has translated into better knowledge of vocabulary, comprehension, spelling, and general knowledge (Anderson, Wilson, & Fielding, 1988; Stanovich & Cunningham, 1992). Book floods, which are programs that inundate educational facilities with increased book caches, have been shown to promote increased reading, which leads to greater improvements in literacy development (Elley, 1992; Neuman, 1999). This, in turn, has been shown to lead to improved attitude toward reading and enhanced language acquisition.

Teale and Sulzby (1986) have pointed out that children's early reading conceptualizations are formed from birth, and these conceptualizations set the stage for children's reading achievement in their subsequent schooling (Roskos & Neuman, 1993). It has been suggested that, in addition to the home, preschools and daycare centers can provide students with a great deal of exposure to printed materials. While many researchers have argued the importance of early education programs providing young students with literacy experiences, others have warned of the negative consequences of such practices (Elkind, 1987; Werner & Strother, 1987). The developmental appropriateness of many emergent literacy interventions has been called into question, and it is important to review why many researchers still argue over the effectiveness of such interventions. Keeping developmentally appropriate practices in mind, one should also look at researchers' debates over how to measure young children's early conceptualizations of reading. An examination of literacy interventions similar in scope and design to the present study is also required. Therefore, the proceeding literature review more closely explores past studies of early reading interventions, their developmental appropriateness, and how best to measure young children's early reading conceptualizations.

Literature Review

Early Reading Interventions

There have been a number of emergent literacy interventions, which have focused on providing increased exposure to storybook reading activities in the homes, preschool, and daycare center classrooms of low-SES students (Allen & Mason, 1989). Numerous studies (Dickinson & Smith, 1994; Dickinson & Tabors, 1991; Whitehurst, et al., 1994) have focused their efforts on providing more books in the homes of low-income families and in providing increased exposure to storybook reading activities in the classroom. For example, in a series of studies using the Little Books program aimed at encouraging parent-child and teacher-child book reading, Mason and colleagues (Mason, et al., 1990; McCormick & Mason, 1989; Phillips, Norris, & Mason, 1996; Phillips, et al., 1990) found that increasing the opportunity for involvement in more storybook reading at home led to steady progress toward higher emergent reading levels in preschool and kindergarten Head Start children during the first years of the intervention.

Some researchers have criticized interventions occurring at the home and schools of low-SES Latinos. For example, Losey (1995) has been critical of many of these past interventions, claiming that schools and parents did not function together and therefore were culturally mismatched. In another study particularly relevant to the population of the present investigation, Goldenberg, Reese, and Gallimore (1992) distributed predictable books in Spanish (or *Libros*) to the families of 16 young children whose primary language was Spanish and found little relationship between the children's school achievement scores and their degree of involvement in the book distribution program. They found that storybook reading is not a normal practice among Latino families, and "quantitative measures failed to capture the qualitative aspects of the children's book reading" (p. 528). Some researchers (Madriral, et al., 1999) addressed these issues by implementing storybook reading interventions that create positive classroom environments and collaboration with parents and found that many Latino families established storybook reading routines at home.

Interventions that include equal participation among preschool community members—parents, teachers, and children—have been shown to work particularly well with low-SES Latino students (Delgado-Gaitan, 1993; Moll, 1998). A problem many face, however, has been in how early students should be exposed to emergent literacy activities. Concerns about when to expose students to a literacy program, however, have resulted in numerous debates among researchers as to what practices are most beneficial to students.

Developmental Appropriateness of Early Reading Programs

The developmental appropriateness of many emergent literacy experiences has been closely examined, especially when used with children who have not yet entered kindergarten (5 years old and younger). In fact, the first edition of Bredekamp's *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth through Age 8* (1987) was written specifically in response to needs within early childhood education programs. Although Bredekamp's guidelines (1987) were created collaboratively from thousands of early childhood educators' input and subsequently updated (Neuman, Copple, & Bredekamp, 2000), there has been debate over how the guidelines affect all children (Johnson & Johnson, 1992; New & Mallory, 1994), prompting the National Association for the Education of Young Children (NAEYC) to view the guidelines as informative, but not prescriptive and in an on-going process of

revision, especially with children who are viewed as at-risk of future academic failure (Novick, 1996).

Some researchers have warned of the harm done to children by early, formalized literacy programs and the measures used to assess their effectiveness. Elkind (1987), for example, has argued that formalized instruction is a form of “miseducation” that may put young children in danger of psychological damage. Other researchers (Burns, Collins, & Paulsell, 1991; Werner & Strother, 1987) have pointed out that not only is formalized reading instruction a bad idea for young children, but the benefits are rather negligible. This focus on academic teaching prior to primary school, it has been argued, puts children at risk for no proven academic reason (Dancy, 1989; Elkind, 1987). In addition, researchers (Johnson & Johnson, 1992; New & Mallory, 1994) have called into question the developmental appropriateness of many early literacy programs and measures for children from culturally diverse backgrounds. In fact, in his own guidelines for developmentally appropriate assessments, Meisels (1994) pointed out that early childhood educators should not assess second language learners, in particular, outside of their primary language and should tap multiple sources of information beyond standardized measures such as those typically associated with reading readiness.

Assessments of Children’s Early Reading Ability

Although many standardized preschool assessments have focused on children’s reading readiness skills, there have been concerns voiced about the validity and reliability of such measures with children under the age of five. First, it has been argued that young children just entering preschool or kindergarten have limited, if any, experience with taking tests (Clay, 1993; Ferreiro & Teberosky, 1982; Heath, 1983). As a result, some researchers have hypothesized that students may fail formal measures not because they do not understand what is being tested but because they do not understand how to respond to the testing situation (Teale, 1990). Also, Clay (1993) has argued that formal measures are not designed to hold a child’s interest, which means children may pay little attention or effort into the activity, while emergent literacy tasks are designed as functional activities that students already understand.

Many (Teale, 1990) have argued the importance of observing unconventional reading behaviors in children in order to better understand how children eventually reach conventional reading understanding. For example, Ferreiro and Teberosky (1982) developed informal tasks (e.g., showing students a card with a picture of a police officer and the word uniform written beneath it and asking students to identify the word and the picture and how they know) that were able to identify early conventional reading conceptualizations (e.g., the ability to distinguish words from pictures). Using students’ answers, Ferreiro and Teberosky created categories to interpret differences between students’ understandings.

One of the most widely used measures of young children’s concepts and understandings of the functions of literacy has been Clay’s (1979, 1993) Concepts About Print (CAP) test (1979, 1993). Since the CAP began to be used by educators in New Zealand in the early 1970s, it has been administered widely throughout the U.S. It can be administered quite easily in a relatively short period of time (usually under 15 minutes), and, according to Wells (1986), it is a major predictor of one’s future academic success. The procedure is quite natural for children since the teacher sits with a child and reads a short book with him/her. CAP, Clay (1993) has argued, are acquired through natural reading and writing. Hence, the test is an actual book-reading and questioning with a child. And, the CAP test reflects a child’s knowledge of several reading concepts, including but not limited to: the front of the book, directionality of how

one reads, print, not pictures, tells the story, and different punctuation marks have different meanings (Clay, 1993).

The CAP has been one of the most widely used standardized measures of students' early reading conceptualizations that goes beyond students' reading readiness skills and looks more closely at students' general understanding of print and its functions. Since it has been standardized in Spanish (Escamilla, Andrade, Basurto, Ruiz & Clay, 1996) as well as English, it has been seen as particularly useful in examining linguistically diverse students' early reading conceptualizations (Teale, 1990).

In conclusion, while studies have examined the effectiveness of various early reading interventions, the research on Latino preschoolers is limited. Many have questioned the developmental appropriateness of formalized reading routines and assessments for young children, but a few researchers (Clay, 1979, 1993; Ferreiro & Teberosky, 1982) have shown the value of measuring students' early reading conceptualizations in unconventional ways. For this reason, the Spanish version of Clay's CAP test was selected as a measurement tool for the present study (Escamilla, et al., 1996).

Methodology

Research Design

Based on the research questions, this study employed a non-randomized one-group pretest-posttest design (Issac & Michael, 1995). Originally, another research design was utilized because approximately 45 students in the 1997-1998 daycare center program were administered pretests in the Spring of 1998 to serve as a control group. However, it was wrongly assumed that these students would remain at the daycare center through July. By the time it was determined that not all students were remaining at the daycare center nor matriculating to the nearby elementary school, only 17 students were administered posttests. Rather than delay the Book-Loan intervention, the following two cohorts of students, 1998-1999 and 1999-2000, participated in the Book-Loan Program and were administered pretests and posttests.

As the Book-Loan Program was strictly voluntary, experimental subjects were not randomly assigned. By attending the 4-year-old classrooms, all of these students were exposed to a comprehensive Classroom Literacy Program. Since the students in the present study came from the same background, it was anticipated that assessment results should be "given nearly as much weight as the results of a true experimental design" (Borg, Gall, & Gall, 1993, p. #).

Subjects

The subjects of the study were a total of 84 preschool children who were enrolled in two, 4-year-old classrooms over a two year period in consecutive cohorts (1998-1999 or 1999-2000) at a privately-funded, inner-city daycare facility that serves predominantly low-SES, Latino students in downtown Los Angeles. All students participated in the Classroom Literacy Program and, to varying degrees, the Book-Loan Program.

According to the daycare center's records, more than half of the students lived in single-parent households and almost all of the families had incomes below federal poverty guidelines. In addition, Spanish was the primary language of communication in

nearly all of the households, and most of the parents worked in the nearby garment and toy wholesale districts that comprise the city's skid row.

Testing Instruments

Clay's CAP test (1993) was utilized for pretest/posttest purposes, as it checks what children have learned about the way languages are printed in books. In the English version, students are individually asked 24 questions while reading the book *Sand or Stones* with an examiner. A Spanish version of the book called *Las Piedras* (Escamilla, et al., 1996) was created, which consists of 25 questions in Spanish (the extra concept examines students' knowledge of the Spanish accent mark). The Spanish version of the CAP was used for the study.

Some of the concepts children are tested on include identifying the front of the book, understanding that print, not pictures, tells the story, and determining what different punctuation marks mean. The assessment takes approximately 10 minutes per student to administer. The test administrator reads the narrative in the book to the child and asks questions regarding the print conventions of the book. The child receives a single point for each correct response, as identified by Clay (1979).

Since its inception, the CAP has been utilized in a variety of studies (Day & Day, 1979; Tunmer, Herriman, & Nesdale, 1988; Yaden, 1982) because of its usefulness in identifying children's early conceptualizations of reading. Although often analyzed as a predictor of children's future reading achievement, Clay's purpose in developing the battery was not for it to be used to predict children's future reading achievement but to assist teachers in identifying children's understanding of reading. With the exception of the Linguistic Awareness in Reading Readiness (LARR) test (Downing, Ayers, & Schaefer, 1982), the CAP remains one of the only early reading conceptualization measures that have been developed in English and Spanish.

Using a factor analysis, Day and Day (1979) determined that there were patterns among the items students were able to identify on the CAP. For example, students who were able to identify the front of the book also tended to acknowledge that print and not pictures carry meaning, and that one reads the left page before the right. As a result, Day and Day (1979) grouped the 24 items of the English version of the CAP (there are 25 in Spanish, as noted above) into a factor pattern of four areas: book orientation concepts, print direction concepts, letter-word concepts, and advanced-print concepts. By examining specific items that fall within these four realms, researchers (Yaden, 1982) have determined what items students improve on and what items they continue to misidentify.

Finally, the CAP has been shown to be a reliable and valid measure of children's early reading conceptualizations. In her analysis of 40 urban children who were 5 to 7 years of age, Clay (1970) reported a split-half reliability coefficient of 0.95. The CAP was found to have a correlation of 0.79 with word reading assessments for 100 children at age 6 (Clay, 1966). Day and Day (1979) reported test-retest reliability coefficients of 0.73 to 0.89 and corrected split-half coefficients of 0.84 to 0.88 for CAP tests administered to 56 kindergarten children in Texas. Similarly, Johns (1980) found coefficients in the range of 0.70 to 0.90 in his studies involving American children ranging from ages 5 to 7.

Data Collection

Data were collected using the CAP pretest and posttest scores of all 84 students. In addition, the 25 individual items on the tests were also analyzed for differences from

pretest to posttest. The independent variables of the study chosen were the two emergent literacy interventions introduced at the daycare center, the Classroom Literacy Program and the Book-Loan Program. Two cohorts consisting of a total of 84 students attended one of two 4-year-old classrooms during the 1998-1999 or 1999-2000 academic years. Students from these two cohorts were pretested in October or November and posttested in May or June. All of these students participated in the Classroom Literacy Program and, depending on the degree of their voluntary involvement, Book-Loan Program interventions.

Classroom Literacy Program

Graduate student assistants from the larger university research study assisted the two 4-year-old classroom teachers in a variety of ways. In order to promote greater concepts of book print awareness among the teachers and students, these assistants modeled a number of activities to the teachers during biweekly and monthly workshops. The teachers then implemented the activities with their students. Activities that were promoted by the teachers in the Classroom Literacy Program included: daily read-alouds, shared reading with Big Books, group story writing, language experience stories, modeling of book handling, and book-making. Students were encouraged to explore concepts about print during their free play time through activities like letter and word games, punctuation games, journal drawing and writing, letter and word matching, independent reading, and reading centers. Particular emphasis was paid toward providing students with time to select and read books from their classroom libraries.

Book-Loan Program

Graduate student assistants from the larger university research study also facilitated an after-school, voluntary Book-Loan Program that was operated in the walkway directly across from the two 4-year-old students' classrooms two days a week. Students were allowed to checkout only one book at a time. Once children checked out 20 books, they were awarded a free book of their choice and were showcased on the Book-Loan library's bulletin board. A log book was maintained as a record of checkout frequency and student participation during the course of their academic year. In addition, parents were invited to attend biannual receptions that provided them with mini-workshops on how to encourage book reading at home.

For the purposes of the present study, data from the Book-Loan log book were utilized. Specifically, names of students enrolled in the program were abstracted, as well as the month they enrolled. Students received one book credit for every book they checked out. The number of months each student participated was determined by each month they checked out at least one book. Months in which students did not checkout a book were not counted as months of participation in the program. The total number of months students participated were tabulated, as were the total number of books each student checked out. To determine the average number of books students checked-out per month, the total number of all books checked-out was calculated and divided by the total number of all months students participated.

Data Analysis

Statistical measures appropriate to the questions of the study were used. The level of significance selected for the rejection of null hypotheses was $p < 0.05$. To ascertain if students' participation in the Book-Loan Program had any impact on their

early reading conceptualization test scores from pretest to posttest, a one sample t-test was performed. In order to see if there was a relationship between students' involvement in the Book-Loan Program and how well they performed on the CAP posttest, correlational data was tabulated and analyzed. A correlational matrix (using a Pearson Correlation) was generated to examine if the independent variables (level of participation in the Book-Loan Program and Classroom Literacy Program) had any affects on the dependent variables (CAP scores). Finally, to determine what specific areas, if any, students showed improvement on the CAP, contingency tables were created to analyze the differences in scores on specific test items between the two cohorts. Pearson Chi-Square tests were then conducted to reveal any differences between the cohorts on all 25 items.

In addition, another contingency table was created to tabulate overall how well students performed on the posttest measure, regardless of improvement. The table was generated to determine the percentages of students answering each CAP item correctly and group these results by factor patterns, as described by Yaden (1982). Day and Day (1979) determined that there were patterns among the items students were able to identify on the CAP, so items were grouped into a factor pattern of four areas: book orientation concepts, print direction concepts, letter-word concepts, and advanced-print concepts.

Results/Findings

The study utilized data from an experimental group of students (two cohorts of 4 year olds) that was already intact and not randomly assigned. To test for the effect of the independent variables (participation in Classroom Literacy Program and Book-Loan Program) on the dependent variable (difference in scores from CAP pretest to posttest), a one-sample t-test was utilized to determine the difference between students' pretest and posttest scores. The students improved their CAP scores from a pretest mean of 3.8095 to a posttest mean of 8.7976, a difference of 4.9881. The analysis of variance (ANOVA) showed that there was a significant difference in students' test scores from pretest to posttest.

To determine the relationship between students' involvement in the Book-Loan Program and CAP posttest scores, a Pearson Product Moment Correlation was utilized. Table 1 presents a correlational matrix. The Pearson Correlation found a low but significant correlation of 0.241 ($p = .027$) between the number of months students participated in the Book-Loan Program and CAP posttest scores. A significant relationship was also found between the number of months students participated in the Book-Loan Program and the total number of books they checked out.

Table 1
Correlations Between Independent and Dependent Variables

		<u>Prete</u> <u>st</u>	<u>Posttes</u> <u>t</u>	<u>Differen</u> <u>ce</u>	<u>Months</u>	<u># of</u> <u>Books</u>	<u>Book</u> <u>Avg.</u>
<u>Pretest</u>	Pearson	1.000					
	Cor.	-					
	Sig. (2-tail)						

<u>Posttest</u>	Pearson	.402	1.000				
	Cor. Sig. (2-tail)	.000*	-				
<u>Differ</u>	Pearson	-.304	.750	1.000			
	Cor. Sig. (2-tail)	.005*	.000*	-			
<u>Months</u>	Pearson	.148	.241	.144	1.000		
	Cor. Sig. (2-tail)	.178	.027*	.192	-		
<u># of Books</u>	Pearson	.086	.205	.150	.863	1.000	
	Cor. Sig. (2-tail)	.434	.062	.172	.000*	-	
<u>Book Avg.</u>	Pearson	-.014	.052	.064	.598	.876	1.000
	Cor. Sig. (2-tail)	.902	.638	.563	.000*	.000*	-
<u>N =</u>		84	84	84	84	84	84

*p < .05.

The total number of books students checked out seemed to have very little impact on students' posttest scores. The Pearson Correlation showed a low relationship of 0.205 with a low significance level of 0.062. The ratio of number of books students checked out to number of months they participated in the Book-Loan program (average number of books checked out per month) also showed no significant relationship with students' posttest scores, as the Pearson Correlation revealed a relationship of 0.052 and a significance level of 0.638.

One final analysis was utilized to determine if any relationships existed between students' degree of involvement in the Book-Loan Program and their CAP posttest scores. Using a fairly even distribution of the 84 participants, students were placed into three groups: (1) students who checked out a total of 8 books or less (a total of 29 students), (2) students who checked-out 9 to 19 books (a total of 27 students), and (3) students who checked out 20 or more books (a total of 28 students). An analysis of variance was conducted to determine if any significant differences on CAP posttest scores existed between or within groups. Again, it still became apparent that it was difficult to separate the effects of the Book-Loan Program from those of the Classroom Literacy Program. Therefore, a low correlation was shown between children's level of involvement in the Book-Loan Program (total number of months of participation, total number of books checked out, average number of books checked out per month) and their early print and language awareness (as determined by CAP posttest scores).

To determine what specific areas, if any, students improved on, contingency tables were created to analyze the differences in scores the experimental group experienced from pretest to posttest on each of the 25 items of the CAP. For the purposes of this analysis, students were found to show "no improvement" if they identified an item: (1) correctly on the pretest but incorrectly on the posttest, (2) correctly on the pretest and correctly on the posttest, or (3) incorrectly on both the pretest and posttest. Students were found to have "improved" if they identified an item incorrectly on

the pretest and correctly on the posttest. Pearson Chi-Square tests were utilized to test for significant differences from pretest to posttest on the individual items. While the results of the ANOVA indicated a significant difference on the overall CAP posttest scores, only one item (item 16) revealed a significant difference ($p < .05$) from pretest to posttest.

The Pearson Chi-Square test showed that students improved significantly better on only one measure from pretest to posttest, identifying a period (item 16 by .011). The Pearson Correlation tests revealed no significant differences from pretest to posttest on all other items.

Although the data supported only a significant difference on one test item (item 16), Table 2 was generated to determine the percentages of students answering each CAP item correctly (both on the pretest and posttest), group these results by previously described factor patterns and compare the present study's results with findings from other researchers (see Yaden, 1982).

Table 2
Percentage of Subjects Answering Each CAP Item Correctly Grouped by Factor Pattern

Item	<u>PRE</u>	<u>PO</u> <u>S</u>	<u>A</u>	<u>B</u>	<u>C</u>
BOOK ORIENTATION CONCEPTS					
1. Identifies front of book	74	86	95	100	100
2. Print (not picture) carries meaning	48	85	100	98	100
11. Left page before right	28	71	100	98	100
PRINT-DIRECTION CONCEPTS					
3. Starts top left	25	67	100	98	100
4. Moves left to right	23	72	100	100	100
5. Return sweep to next line	18	68	100	98	100
6. Matches spoken to written word	3	12	98	94	93
7. First and last (lines, words or letters)	5	60	98	94	93
9. Movement along inverted print	5	17	96	86	87
16. Identifies period	6	49	96	84	80
LETTER-WORD CONCEPTS					
8. Recognizes inverted picture	59	74	99	86	90
20. Identifies upper/lower case letters	4	17	97	92	92
22. Identifies one and two letters	41	78	91	98	88
23. Identifies one and two words	9	10	94	90	93
24. Identifies first and last letter in a word	12	33	93	82	92
25. Identifies capital letter	11	23	93	84	83

ADVANCED-PRINT CONCEPTS

10. Recognizes inverted lines	0	1	57	37	35
12. Recognizes incorrect word sequence	0	1	14	35	22
13. Recognizes incorrect letter sequence	0	0	19	45	32
14. Recognizes incorrect letter sequence	0	0	18	33	32
15. Identifies question mark(s)	0	0	75	76	77
17. Identifies comma	0	1	33	39	32
18. Identifies quotation marks	0	9	34	16	18
19. Identifies accent mark	0	3	-	-	-
21. Distinguishes between la/ya and las/ya	0	4	86	82	72

in

Spanish or was/saw and no/on in English

N =	84	84	118	51	60
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Note Tabulations for the present study's experimental group on the 25 items of the Spanish version of the CAP can be found in the first two columns. Column "PRE" represents the percentage of students in the present study's experimental group who correctly identified an item on the CAP pretest, while column "POS" represents the percentage of students in the present study's experimental group who correctly identified an item on the CAP posttest. Columns A – C represent data gathered on first graders who were tested on 24 items of the English version of the CAP (Yaden, 1982; Day, Day, Spicola & Griffen, 1981; Johns, 1980).

For this analysis, any item that was correctly identified on the posttest was used for analysis, rather than solely using items on which students improved. In this way, students received credit for correctly identifying a posttest item if they: (1) incorrectly identified the item on the pretest, but correctly identified it on the posttest or (2) correctly identified the item on both tests. Again, Chi-Square tests did not reveal significant differences from pretest to posttest on most items. Table 2, however, does reveal that large percentages of students as an overall group improved on individual items of the CAP. For example, on item 11, where the student identifies that one reads the left page before the right, only 28% of the students correctly identified the item on the pretest, as opposed to 71% who correctly identified the item on the posttest.

When looking at Table 2, it is interesting to note the similarities in the factor patterns between the results of the present study and those of similar studies involving first graders who were tested on the English version of the CAP (Day, et al., 1981; Johns, 1980; Yaden, 1982). Generally, the present study's students tested highest on book orientation concepts, which corresponded to data from past studies.

It seems reasonable to note that some items proved to be more difficult for the preschoolers in the present study than the first graders in prior studies. Clay (1993) has pointed out that students of different ages exhibit a wide range of scoring abilities on the CAP and older students tend to outperform their younger counterparts. It is interesting to note, however, the dramatic increases students in the present study displayed between participating in the CAP pretest and the CAP posttest. Table 2 shows several examples of the students posting major gains in their ability to identify various concepts about print. While smaller percentages of the preschoolers in the present study were able to correctly identify items first graders could decipher in similar studies, the concepts that the preschoolers in the present study understood closely matched the factor pattern provided by Day and Day (1979).

Conclusions and Recommendations

The present study was primarily concerned with determining: (1) The effects of a preschool emergent literacy program on students' early reading conceptualizations, as measured by CAP test (1979, 1993); (2) how a Book-Loan Program affected these conceptualizations; and (3) what, if any, specific areas were most affected.

Effects of a Preschool Emergent Literacy Program

A number of factors made it difficult to conclusively determine if participation in the emergent literacy program affected children's early print and language awareness. First, as the original control group dissolved into 17 students, it became apparent that the experimental group would be the focus of the study. Comparison between the experimental group and a control group would have prevented a stronger case for the Book-Loan Program's impact. In addition, the Classroom Literacy Program was not analyzed, and it is possible that the daycare center's classroom literacy interventions were responsible for the increase in students' test scores. For these reasons, the findings of the present study should be taken as a catalyst for future studies rather than a definitive investigation.

When looking at the emergent literacy program intervention, the experimental group experienced a significant difference in their CAP scores from pretest to posttest. This finding is consistent with previous research (McCormick & Mason, 1990; Neuman, 1999; Sulzby, 1985) that has shown that preschool students participating in early literacy interventions perform better on measures of their early reading conceptualizations than students who do not participate. Almost all of the students showed improvement in their scores from pretest to posttest. Using normal means, the students' scores improved by 4.9881 points. As Clay (1993) has pointed out, young children test lower on the CAP than older children, but their scores should improve as their reading improves. Higher scores at a younger age should expedite this process. The emergent literacy program intervention utilized in the present study, then, appears to greatly benefit children's early reading conceptualizations.

Effects of Varying Degrees of Participation in the Book-Loan Program

The Pearson Correlation found a low but significant correlation between the number of months students participated in the Book-Loan Program and their CAP posttest scores. Low correlations were also found between two other measures of the degree of student involvement in the Book-Loan Program: (1) The total number of books students checked out and the ratio of number of books students checked out to number of months they participated in the Book-Loan Program, and (2) students' posttest scores on the CAP.

One possible reason for the low correlation found between children's level of involvement in the Book-Loan Program and their early print and language awareness could have been the measurements themselves. The number of books students checked out in the program does not reveal whether or not they were reading the books at home. Similar findings by other researchers (Goldenberg, Reese, & Gallimore, 1992) have led them to question whether such quantitative measures effectively captured how books were really being used.

Secondly, research has shown that the literacy activities of different social and cultural groups vary greatly (Heath, 1983; Wells, 1986), and this variance may be a more

important variable to measure than the number of months students participated in a Book-Loan Program or the number of books they checked out. It is quite possible that parents were not reading the books with their children, as some researchers (Reese, Garnier, Gallimore & Goldenberg, 2000) have pointed out that many Latino parents believe that children under age 5 are not yet ready to understand to read.

One positive relationship that was revealed in the study, however, was that the longer students participated in the Book-Loan Program, the greater number of books they checked out. This finding might simply mean that students who participate in such programs inevitably manage to increase their involvement over time. On the other hand, perhaps this finding suggests that the longer students participated in the program, the more they began to enjoy the program. Maybe the number of books checked out is a better predictor of long-term reading ability than short-term ability. Students who participated longer, too, may have experienced a wider variety of book selection and that may have affected their checkout rate.

Specific Areas of Improvement

While the students scored significantly higher on the CAP posttest than on the CAP pretest, an analysis of each of the 25 CAP items revealed that only one item showed a significant difference ($p < 0.05$) from pretest to posttest. The Pearson Chi-Square test showed that students improved significantly better from pretest to posttest on only item 16, identifying a period.

Examining the specific items students identified correctly on the CAP posttest, it could be argued that students distinguished themselves as quite literate on book orientation concepts and print direction concepts, using the factor pattern identified by Day and Day (1979). Indeed, Table 2 shows that the preschoolers in the present study hold their own in these areas when compared to first graders in previous studies. And, it should be noted that even though a smaller percentage of preschoolers correctly identified items first graders could decipher in similar studies, the concepts that the preschoolers in the present study understood closely matched the factor pattern provided by Day and Day (1979). Furthermore, preschoolers in the present study exhibited large statistical gains from pretest to posttest in a variety of concepts.

It should be pointed out that two delimitations existed. As a result of missing data (students in the original cohort, which was to act as a control group, left the daycare center before receiving the CAP posttest), student test results were delimited to only those students who participated in the Book-Loan Program and were administered a CAP pretest and posttest. In addition, the number of months students participated in the Book-Loan Program was delimited to only months in which students checked out at least one book.

Finally, three limitations may affect the ability to draw inferences from the results of the study. First, due to attrition and low numbers, the control group data had to be eliminated (this data could have been used, among other things, to determine if maturation was a primary factor affecting student test differences from pretest to posttest). Second, students who checked out books in the Book-Loan Program were not observed at home, so it is not possible to determine whether or not these students actually read the books. Third, while many students managed to improve their CAP scores on the posttest, their scores often did not increase as much as possible as a result of missing items they had previously identified correctly on the pretest.

Few studies have looked at how increased access to books affects preschool students in particular, and those that have, show that increased book access for preschoolers positively affects their reading (Dowhower & Beagle, 1998; Neuman, 1999). Similarly, while the correlation was lower than what might have been expected, the relationship between sustained home literacy activity and increased test performance in literacy was maintained. In addition, as federal and state educational reforms have pushed for greater achievement and quality instructional programs at the preschool level, the present study offers data substantiating the effects of combined literacy activities on low-SES Latino preschool students' conceptualizations of reading.

Growing bodies of educators and researchers have become interested in the early reading conceptualization levels of preschoolers, particularly those who are second language learners. Early literacy interventions such as the emergent literacy program offered in the present study seemed to have significantly impacted the ways young children view print. The data gathered in the present study supported a number of findings found in previous studies and expanded the scope of emergent literacy interventions to include comprehensive classroom and home programs that support and promote students' home language and culture. Evaluations conducted in Spanish in the present study provided great insight into how second language learners can improve their early conceptualizations of reading with encouragement and resources in their primary language.

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