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**Story-reading and the knowledge of**  
**printed Spanish: Exploring their relationship**  
**in the preschool classroom**  
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**Abstract**

This study explores the possible relationship between story-reading and the emerging knowledge of printed Spanish in a group of low-class Puerto Rican preschoolers. The purpose of the study was to determine if there was a significant difference between the knowledge of printed Spanish of preschool children who were exposed to story-reading within the context of the traditional reading readiness program, and that of preschoolers who received the reading readiness training but were not systematically exposed to story-reading. One hundred and twenty four-year-olds constituted the sample. They were pre-tested for knowledge of printed Spanish with a Spanish version of Concepts About Print Test, Sand (Clay, 1972). Control and experimental subjects were matched according to their scores in the pre-test. Experimental children were exposed to story-reading at least three times per week, during four months. At the end of the treatment, children were post-tested with a Spanish version of Concepts About Print Test, Stones (1979). Results indicated that there was a significant difference in favor of the children in the experimental group.

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Between the 40's and the 60's, the notion of reading readiness dominated the field of prereading instruction in Puerto Rico and the United States. Behind the concept of reading readiness, laid several assumptions about the nature of children, their development and their education that were rooted on the maturationist paradigm. It was believed that children development was the product of a genetic blueprint that followed a predictable and normative course. Therefore, formal reading instruction needed to be delayed until children had matured enough to be able to benefit from it. The assumption was that most

preschoolers lacked the necessary visual, auditory, and motor skills supposedly needed for learning to read (Hiebert, 1981).

The Reading Readiness Program was one of the most important educational programs rooted in this maturationist view of children. Across the United States and in Puerto Rico, the kindergarten curricula quickly integrated a variety of activities recommended by this program. Some of these activities are aimed at developing visual-perceptual discrimination, auditory, motor-perceptual skills, together with skills to understand and use oral language.

Research conducted since the early seventies has demonstrated that some of the readiness activities recommended by the reading readiness programs proved not to be as effective as expected. For example, Robinson (1972) and Gibson and Levin (1979) found that exercises aimed at visual discrimination of non-alphabetic forms and at the development of motor-perceptual skills bear no significant correlation with a successful beginning in reading.

Luckily, in recent years, there has been a change in the way some educators look at the early literacy development of preschool children; thus getting away from the readiness view that predominated between the 1940 and the 1960. Today early literacy is regarded as a developmental phenomenon, strongly influenced by cognition, language and interaction with sociocultural factors (Miller Clearly and Linn, 1993; Shinn-Striker, Hous and Klink, 1989).

Nevertheless this change has been slow in Puerto Rico. Curricula used in private, public kindergartens, and in other preschool settings in Puerto Rico reveal two main tendencies. One tendency--present in private kindergartens--advocates the formal teaching of reading stressing the code-emphasis approach, before children reach the first grade. The other tendency, which characterizes the public kindergartens and the Head Start centers across the Island, lingers on the reading readiness views that emerged in the 1940's. A close look at the Reading Readiness Program used in the public kindergartens in Puerto Rico reveals that emphasis is on the development of oral language skills, visual, motor, and auditory discrimination. Very little or no attention is given to children's interaction with adult readers through individualized story reading, or to the creative exploration of the printed language. There is also no concern with the notion that children need to construct knowledge of the printed language--not only skills--before and during the process of becoming competent readers and writers; or that the cognitive construction of print knowledge, is the result of the social interaction with a literate environment (Anderson and Stokes, 1984).

### **Story-reading: Review of the literature**

Since the early seventies, several theoretical articles and empirical studies have explored the benefits of reading stories to preschoolers (Anderson, Teale and Estrada, 1980; Bissex, 1980; Dickinson, Hirschler, Temple and Smith, 1992; Hall, 1985; Lincoln, 1974; Malicky and Norman, 1985; Otto, 1982; Rossman, 1980; Scarborough, Dobrich and Hager, 1991; Schikedanz, 1978, 1981; 1984, 1986; Sulzby, 1985; Walker and Kuerbitz, 1979; Willems and Willems, 1975;

Yaden, Smolkin and Conlon, 1989). Although each of these researchers has looked at story-reading from a particular perspective, all agree that this activity provides an excellent opportunity for children to become aware of the symbolic function of printed language. For example, Rossman (1980) examined the reading behavior of five girls in a day care center. The girls' ages ranged from 18 to 60 months. Each girl was individually read one of two favorite stories and in turn, was invited to read it back to the experimenter. The analysis of the audiotaped reading sessions indicated that the girls went through a series of stages when requested to read the story back to the adult reader. Rossman concluded that storybook reading behaviors progress from a stage at which the focus is on understanding the storyline, to the stage at which decoding strategies emerge. Rossman also reported that the structure of the text in the book affected the story reading behaviors; and that there were transitional points between the stages at which the girls demonstrated non-response behaviors or asserted that could not read.

Sulzby's (1985) findings confirmed those reported by Rossman (1980). The researcher looked at the reading behaviors of 24 preschoolers after they were asked to "read" their favorite books. Their reading attempts were analyzed and categorized, falling into a developmental scheme in which the first reading reenactments were picture-governed. Children moved along the developmental scheme by labeling and commenting the action; engaging in dialogic and monologist storytelling; in mixed reading and storytelling, reading similar-to-original story; reading verbatim; refusing to read; and finally, reading holistically, which resulted in independent reading.

In a subsequent study, Sulzby (1985) examined the reading attempts of two- three-, and four-years old as they read two books per session, in four sessions during one year. It was found that the preschoolers' reading attempts were stable across the storybooks and the subcategories of the developmental scheme identified in the first study. The comparison of the data from both studies indicated that the developmental scheme seemed to differentiate the reading attempts over time, becoming more sophisticated with increasing age.

According to the findings reported by Rossman (1980) and Sulzby (1985), the understanding of the reading process as well as the behaviors exhibited by preschoolers who have been frequently read to, appear to be developmentally organized. It is evident that story reading provides an excellent opportunity for children to discover how print functions in a storybook. Since learning to read is to a certain extent, a matter of discovering how the printed language works (Schickedanz, 1981), story-reading fosters a kind of interaction with the written language that is both, meaningful and enlightening to preschoolers.

Schickedanz (1981) collected naturalistic observations of preschoolers exposed to story-reading, that became the basis for a model of the possible stages in the emergence of reading knowledge. Schickedanz's Model suggests that preschoolers go through six stages. Children start off thinking that people read the illustrations and that the reader invents the plot according to the pictures. With continuous exposure to story-reading, children begin to realize that the reader does not invent the plot; that the text "tells" the story; and that the

words in the text are the key to reading. In the last stage, children are able to read proficiently, integrating everything they know about the context, the printed language, and the relationship between speech and print.

### **Benefits of story-reading**

The benefits of reading stories to preschoolers are various. Snow (1983) has indicated that story-reading contributes to an early literacy development because it gives children an opportunity to begin to use language in a decontextualized form. According to Snow, being able to use oral and written language in a decontextualized fashion is a key factor in academic success beyond the fourth grade.

Schickedanz (1981) has discussed the role of story-reading in the process of developing grapho-phonemic awareness. Grapho-phonemic awareness is the ability to match speech to print in order to make sense out of print and sound. Schickedanz indicated that phonemic awareness cannot be taught in the traditional sense because it has no objective existence in speech; only in the mind of the listener as a cognitive construction, and is not dependent on auditory perception. According to Schickedanz, knowledge about phonemes and their relationship to print is the result of the child's actions on the oral and written language when trying to match speech to print.

There are other benefits derived from story-reading. According to McCormick (1983), story-reading enhances the oral language development of children regardless of their socioeconomic class. Story-reading produces an increase in the children's interest in books, enhances their academic achievement, and facilitates the process of learning to read. Scarborough, Dobrich and Hager (1991) have demonstrated that indeed, preschoolers' frequent exposure to story-reading in the home, bears a significant correlation with reading success in second grade. Purcell-Gates (cited in Dickinson, De Temple, Hirsh and Smith, 1992) have suggested that story-reading probably supports later literacy because it familiarizes children with the language of the books; also referred to as metalanguage.

Teale (1984) also has indicated that story-reading helps children develop assumptions about the functions and uses of written language. Some of these functions are general, such as communicating meaning, or serve specific functions such as writing poetry, and mediating information exchanges. Teale goes on to elaborate on the way in which story-reading helps children construct concepts of print and the structure of the written language, improves their attitudes toward reading, and enhances the development of reading strategies such as self-monitoring and prediction.

However, it is necessary to point out that most of the studies available are biased toward middle class children. Except for the Anderson, Teale, Estrada (1980) and the Rossman (1980) studies, that examine literacy development in low-class samples, many of the studies deal with middle class children. These studies also focus on the relationship of story-reading and the literacy behaviors

of preschoolers who have exhibited a strong interest on reading and writing activities. Moreover, some of studies rely on parental reports, which presents a methodological problem regarding the validity and reliability of the data. Finally, many of these studies are based on observational data aimed at describing the process through which children develop awareness of the printed language and the reading process, when exposed to story reading on a continuous basis.

The study reported in this article explores the possible relationship between story reading done by an adult, and the knowledge of printed Spanish of a group of low-class Puerto Rican preschoolers. The present study is an attempt to answer the following question: Is there a significant difference between the knowledge of the printed language of preschool children who were exposed to story-reading within the context of the original reading readiness program still in use in Puerto Rico, and that of the children who received the reading readiness training but were not systematically exposed to story-reading?

Due to the lack of official information concerning the prereading and early reading achievement of students enrolled in kindergarten through third grade, in Puerto Rico's public schools (Arbona, 1993, Note 1; Solis de Sánchez, 1983, Note 2; Rodríguez, 1983, Note 3); and the lack of specific suggestions in the kindergarten Curricular Guide of the Puerto Rico's Department of Education (1976; 1989), concerning individualized or small group story-reading and its relationship with the process of learning to read, this study has important implications for the literary education of preschool children. Finally, there is scarce research data on the literacy development of low-class Spanish speaking preschoolers. So far, only Ferreiro and Teberosky (1982) have examined the emergence of literacy concepts in a group of low-class Argentinean children; and Jacob (1984), who has looked at the literacy development through play, of a group of Puerto Rican children in Utuado, Puerto Rico.

## **Method**

### **The Sample**

The original sample was constituted by 124 year-old children, from low-class families. The subjects were enrolled in Head Start centers in inner city communities in San Juan, Puerto Rico. Sixty subjects respectively formed the experimental and control groups. The mean age of the children assigned to the control group was 4.6 years; 4.4 years was the mean age of children assigned to the experimental group. These children were selected to participate in the study because of the researcher's access to the Head Start centers through the University of Puerto Rico. Therefore, this was a sample of convenience.

Children were already assigned to specific classrooms in each of the Head Start centers. They were not assigned at random to the experimental and control groups. The experimental and control groups were labeled according to the classroom clusters already organized in the Head Start centers. There were 47 boys and 73 girls in the sample. Because of the sampling constraints mentioned above, it was not possible to separate the boys and the girls.

After the pre-testing was completed, the sample was reduced to 88 children or 44 pairs. The pairs were formed by matching the subjects according to their score in the test. However, subjects were not matched by sex. The purpose of the matching was to insure the equivalence of both groups in their knowledge of the printed language.

### **The Treatment**

Both the control and the experimental groups were exposed to the Reading Readiness Program used in public kindergartens in Puerto Rico. This program is based on curricular activities aimed at the development of visual discrimination with non-alphabetic forms, auditory discrimination mostly with environmental sound and rhymes, motor-perceptual coordination, and understanding and use of oral language, with story telling as a predominant activity. A book corner containing all sorts of books for preschoolers was available in all classrooms. Children were stimulated to go look at the books whenever they wanted.

The experimental group was exposed to trained adult readers--parents and college students-- who read one or all the following books: "Así son Nuestros Amigos" (D'Atri y Puncel, 1980), "Así es Nuestro Perro" (D'Atri y Puncel, 1980), "Así son los Abuelos que Viven Lejos" (D'Atri y Puncel, 1980), and "Así es Nuestro Hermano Pequeño" (D'Atri y Puncel, 1980). These books were chosen because they had only one line of text on the pages; on some pages there were illustrations without text, and their topics were familiar to the children.

The books were available all the time in the book corner in all classrooms--control and experimental--. The story-reading sessions took place during the free play period in the morning. The books were read to small groups of children-- no more than three children per group--at least three times a week and on a voluntary basis. That is, children participated on the story-reading session voluntarily and they selected the books to be read. Children had an active role in the reading session. They were encouraged to hold the book, turn the pages, look at the text, and make comments or questions whenever they wanted.

A checklist was used to record the names of the children who were read to in each session as well as the titles of the storybooks selected. Since there were other books available in the classroom, the children often requested these to be read. The frequency of the use of these readings was also recorded under the heading "other books". One of the purposes of the checklist was to prepare a participation profile of the children every two weeks. The participation profile allowed the reader to identify children who did not volunteer to participate in the reading session in order to invite them individually to participate.

### **Instruments**

Subjects were administered a pre- and post-test aimed at measuring their knowledge of the printed language in terms of: the spatial orientation of the

book, the representational vehicle that carries the message in the book, the directionality of the lines of print, page sequences, and words; the relationship between written and oral language; and concepts of words, letters, capitals, space, and punctuation (Goodman, 1981). The testing sessions were audiotaped.

The instrument used was a Spanish version of Concepts About Print Test Sand, (Clay, 1972) and Stones (Clay, 1979), which was translated for this study. The reliability coefficient was determined by having two persons independently code the previously audiotaped responses of a pilot sample of four children. Disagreements in coding were discussed in an attempt to resolve them. The total amount of disagreements that could not be resolved was divided by the total amount of test items. The coefficient of agreement was .92 for Sand's Instrument and .95 for Stones' Test

## **Results**

There was considerable variation in the frequency of reading sessions among the four classrooms that constituted the experimental group. In classroom #1, there were 97 reading sessions, which yielded a mean of 24.25 reading sessions per month and 6 reading sessions per week. In classroom #2, there were 31.75 reading sessions per month, and 7.9 reading sessions per week. Classroom #3 reported 406 reading sessions, which yielded a mean of 101 reading sessions per month, and 25 reading sessions per week. In classroom #4, 167 reading sessions were reported, which yielded a mean of 41.75 reading sessions per month, and 10.4 reading sessions per week.

The pre- and post-test instruments were analyzed with a t-Test for Non-independent Samples. The comparison between the means of the pre-test and post-test scores of the experimental group yielded significant results in favor of the post-test mean score (6.6  $p < .001$ ). The comparison between the mean scores of the control and the experimental group's post-test was significant in favor of experimental group (6.5  $p < .001$ ).

The analysis of the post-test items of the experimental group indicated that approximately 89% of the children knew where the front of the book was; 86% knew that people read the text and not the illustrations; and 75% of the children could indicate where on the page people begin to read. None of the children could match the speech to the print, even though most of them were able to point at the line that was being read.

Approximately 90% of the children noticed that some of the illustrations in the testing booklet were upside down. Also, 92% of the children were able to point at a word and at a letter in the booklet when requested to do so.

## **Discussion**

This study represents an attempt to observe and compare the test performance of two similar groups of Puerto Rican preschoolers in terms of their knowledge of printed Spanish, after being read to on a continuous basis. The

findings confirm what Schickedanz (1981), Rossman (1980), and Clay (1972) reported regarding the preschoolers' early notion that people read the illustrations in a storybook. The findings also indicate that the knowledge of the printed Spanish of the children significantly changed during the course of the treatment, even though it is not possible to attribute the change only to the activity of story-reading. Most of the children in the experimental group had discovered that people read the text; knew where people begin to read on the page; had some notion of what a word and a letter are; and could point at the line that was being read. The changes in print knowledge evidenced by the experimental group, in contraposition to the control group, do not mean that individual children in the control group did not discover some of the regularities of print. However, these were unique cases, whose effect on the control group mean score was non-significant when data were statistically analyzed.

The results of the present study are indeed provocative. However, there are limitations to the study that must be taken into account. The fact the research design was quasi-experimental precludes that establishment of a cause-effect relationship between story reading and the knowledge of printed Spanish as measured by Concepts About Print Test. It is also necessary to point out that the nature of the instrument used is aimed--as Clay (1983) has indicated--at uncovering behaviors and knowledge that are related to early reading deficiencies. That is, the test is not predictive but diagnostic. Nonetheless, due to the scarcity of the instruments aimed at measuring print knowledge that were available, and could be translated into Spanish, it was decided to use Clay's Concepts About Print Test even though it has limitations.

There are several confounding variables that could not be controlled for, due to the limited scope of the study and the restrictions in funding. These variables--isolated or in interaction--could be responsible of the apparent growth in print knowledge. For example, children's exposure to print in the outside environment; teachers' attitudes toward the early exploration of print and to story-reading; variations within the reading readiness program in each classroom according to each of the teachers' knowledge and educational goals; differences in the frequency of the story reading sessions in each classroom; the non-randomized composition of the groups; home environment; and parental attitudes toward literacy. According to the information provided by the teachers, there were some parents strongly oriented toward literacy. These parents frequently came into the classrooms and participated with the children in various literacy activities.

Due to the nature of the research design, the study does not provide specific information on the reading behaviors that low-class Spanish speaking children exhibit as they are frequently read to; or if these behaviors fit the developmental schemes proposed by Sulzby (1985), Rossman (1980), or Schickedanz (1980). Nevertheless, it would be necessary to identify and analyze those behaviors in order to uncover the strategies that Spanish speaking children use when constructing knowledge of printed Spanish, or in an attempt to match speech to print. Moreover, since Spanish is a phonetic language, it is necessary



to study the influence of the phonetic quality of Spanish, on preschoolers' emergent knowledge of print and of its relationship to speech.

### **Conclusions**

This study provides insights on the remarkable capacity of children--regardless of their ethnic or socioeconomic background--to construct knowledge of the printed language when given the opportunity to interact with print in a meaningful situation. The results of this study could become the basis for discussions on the importance of integrating story-reading in the kindergarten, Head Start centers, and other preschool settings on the Island; as well as on the need to undertake more research on the Spanish speaking children's emergent knowledge of printed Spanish either in Puerto Rico as well as in United States.

Notes:

1. Arbona, I. Evaluation Division, Office of Planning and Development, Puerto Rico's Department of Education, personal communication, September 10, 1993.
2. Solís de Sánchez, R. Director, Spanish Program, Puerto Rico's Department of Education, personal communication, May 25, 1983.
3. Rodríguez, E., Director, Evaluation and Pedagogical Innovations Division, Puerto Rico's Department of Education, personal communication, May 27, 1983.

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