DESCUBRIENDO LA LECTURA: AN EARLY INTERVENTION LITERACY PROGRAM IN SPANISH

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Need and Significance

THERE ARE CURRENTLY 7.5 MILLION SCHOOL AGED CHILDREN IN THE UNITED States who enter school speaking languages other than English (Lyons, 1991). About 70 percent of these students speak Spanish as a first language (Lyons, 1991). The number of Spanish-speaking students entering U. S. schools has steadily increased over the past decade. These children constitute the fastest growing group in U. S. public schools (Brown, 1992).

During the past twenty years, bilingual education programs have been widely implemented in the U. S. as a means of providing quality educational experiences to these Spanish-speaking language minority students. Politically, bilingual education has been extremely controversial. However, research studies have established that bilingual programs are pedagogically sound when fully implemented with well qualified staff and administrative support (Cummins, 1989; Hakuta, 1987).

Bilingual programs are implemented in many different ways. However, they generally utilize a child's native language for initial literacy development and gradually add English as a second language. This model has demonstrated that initial success in native language literacy provides a base for subsequent success in English (Escamilla, 1987; Krashen & Biber, 1988; Ramírez, Yuen, & Ramey, 1991).

In spite of these achievements and the overall positive impact of bilingual education programs, there are some language minority students who have not achieved the desired results in native language or second language literacy. These students, like their English-speaking counterparts, may have difficulty at the beginning stages of literacy acquisition, requiring special attention or something extra in the way of instruction to achieve the levels of literacy and biliteracy needed to be academically successful.

Typically, this something extra has taken the form of pullout compensatory programs designed to remediate the student's academic weaknesses. Pullout programs for language minority and majority students, largely funded through Chapter 1 programs in local elementary schools, have been widely criticized during the past few years (Allington & Broikou, 1988; Barrera, 1989; Hornberger, 1992). This criticism asserted that students continue to participate in remedial programs year after year. There is little evidence to suggest that student achievement improves as a result of participation in these programs (Allington & Broikou, 1988; Barrera, 1989). Further, compensatory programs become life sentences for students; once they get in, they never get out.

An additional problem for language minority students in need of some sort of remediation, particularly in literacy, is that the remediation is often offered in English whether or not the child has a sufficient command of it to benefit from such instruction. This approach to remediation often creates a situation where the child may be receiving formal reading instruction in Spanish (or another native language) in the regular classroom, and English reading instruction for remediation, a situation that may well result in further confusion and failure for the child (Barrera, 1989).

Added to this is the overall problem that 95 percent of the bilingual programs for language minority students in the United States are transitional in nature. Their stated purpose is to transfer students from native language to English language programs as quickly as possible (Fradd & Tikunoff, 1987). This transitional policy exacerbates difficulties for language minority students who may be struggling to learn to read in their native language. Teachers often feel pressured to get students into English reading, so they give up trying to help students become literate in their first language and simply teach in English.

Given these factors and the research results establishing the efficacy of native language programs, there is a real need to look at innovative early intervention programs that are offered in the native language of the students. Native language programs may be the best vehicle to assist language minority children struggling with literacy acquisition. At the same time, it is important that such programs not condemn these children to a lifetime of remedial instruction.

One educational intervention that focuses its efforts on helping English-speaking students who are struggling to learn to read is Reading Recovery. Briefly defined, Reading Recovery is a first grade intervention program designed to identify and remediate reading difficulties early in a child's school career. Children in Reading Recovery receive intensive individual instruction by specially trained teachers. The purpose of Reading Recovery is to cycle children as quickly as possible into and out of intervention and back into a basic classroom experience. Reading Recovery was developed and implemented in New Zealand and has recently been implemented throughout the United States and in Australia, Canada, and Great Britain. Reading Recovery has met with great success in areas where it has been implemented (Clay, 1989; Pinnell, 1988; Pinnell, Fried, & Estice, 1990). So great is its success in the U. S., that in 1992 there were Reading Recovery programs in thirty-four states and the District of Columbia (Dyer, 1992). It would seem that Reading Recovery, given its success with English-speaking students, might also be effective when applied in Spanish with Spanish-speaking students. However, there is a need to examine this notion beyond the point of theoretical supposition.

In 1988, bilingual education staff at a large urban school district in Southern Arizona made the commitment to develop and study the application of Reading Recovery in Spanish. This project was given the name Descubriendo La Lectura (DLL) and is an adaptation of Reading Recovery. It is equivalent in all major aspects to the program originated by Marie Clay in New Zealand.

The study reported herein is an examination of one aspect of the DLL program which entails an examination of the notion of acceleration as defined by English Reading Recovery. In English Reading Recovery, acceleration is one of the theoretical underpinnings of the program. The theory of acceleration suggests that it is possible to take students who are struggling in their efforts to become literate, and through a specific, intensive one-to-one instructional program, provide the something extra that the child needs to accelerate from struggling to average. Struggling generally refers to those children who are at the lowest 20 percent in their class with regard to literacy, and average refers to literacy levels of other students in a school. Reading Recovery provides measures to observe student literacy development that can be used, along with teacher judgment, to identify children who are struggling as well as those who are average. These same measures can be used to observe student growth across time.

The study examined the initial impact of DLL on twenty-three students who participated in the program during 1991-92, and examined whether these children accelerated from struggling to average. This study should be viewed as a beginning effort and the reader should note that the data not only provide valuable information about the initial impact of DLL on students, but also will serve as a baseline for future longitudinal studies which will assess the impact of this program across grade levels and examine the extent to which gains made in Spanish literacy subsequently apply to the acquisition of English literacy.

From a theoretical standpoint, this study is significant for several reasons. First, it utilizes the knowledge base and theoretical framework from two important fields (bilingual education and Reading Recovery) for the purpose of addressing a large and growing need in our country. This need is how to assist Spanish-speaking children who are having difficulty learning to read without prematurely submersing them in English and without permanently placing them in classes for slow learners.

The projected growth of Spanish-speaking students in U. S. schools is 35 percent over the next decade (Lyons, 1991). This, coupled with the continued overrepresentation of these students in remedial programs, makes studies such as this one significant for policymakers and practitioners. Moreover, these studies are imperative if the academic potential of Spanish-speaking students in our country is to be realized.

Reading Recovery: An Overview

Reading Recovery (RR) is designed to assist first grade students who are having difficulties learning to read. Students identified as needing Reading Recovery are pulled out of their

classrooms for intensive one-to-one instruction for thirty minutes per day. Reading Recovery differs from other remedial programs in several significant ways. First, the intent of the program is to accelerate struggling students so that they can catch up with their peers. The program is not intended to take the place of good classroom instruction but is seen as providing the something extra that is needed to provide struggling readers with the inner control needed to become independent readers. The program is designed to be short-term and to cycle students into and out of the program as quickly as possible. Average student participation in Reading Recovery is twelve to sixteen weeks (Clay, 1989; Pinnell, 1990). Reading Recovery is delivered by a trained teacher and RR teachers undergo an intensive one year training program to learn Reading Recovery theory and procedures. As they learn the theory, they simultaneously apply these procedures with children under the guidance of a teacher leader and the support of a peer training group.

Reading Recovery lessons follow a similar structure. However, there are no prescribed step-by-step kits or consumable materials. Trained teachers select and use a wide range of books. Lessons are designed to actively involve children in their own learning. Children are guided to think and solve problems while reading. Teachers provide support, but the children do the work and solve problems. Daily writing and using children's writing to teach reading are important aspects of RR (Pinnell, DeFord, & Lyons, 1988).

Reading Recovery programs have demonstrated that children can accelerate their reading progress in this program and that their reading progress can sustain itself across grade levels (Clay, 1989; Pinnell, 1990). Thus, once students are successfully discontinued from RR programs, their gains are maintained without the need for further remediation.

Research results on the impact of English RR have been very promising. Results of the original program developed by Marie Clay in New Zealand (Clay, 1979a, 1979b, 1982) indicated that children who had been identified as RR students made accelerated progress while receiving individual tutoring. After an average of 12-14 weeks, almost all children in the initial program had caught up with their peers who were considered to be average readers. Three years later, children who had received RR continued to progress at average rates. Although the initial research group in New Zealand included bilingual Maori children, bilingual Pacific Island children, children whose ancestry was European, and children with special needs, it is important to note that RR, in its inception, was conducted exclusively in English. Since that time, however, RR has also been developed in Maori (M. M. Clay, personal correspondence, May, 1992).

Programs implemented in the United States have reported similar results. During the 1984-85 school year, a U. S. program was piloted in Ohio. The program was implemented in six urban schools with high proportions of low income students. Fifty-five students received RR during the pilot year, with an average of twelve weeks of intensive tutoring. At the end of the pilot year, two-thirds of the children were substantially above comparison group students on standardized tests. Further, students were within the average range of achievement based on national norms of the Stanford Achievement Test (Huck & Pinnell, 1985). Follow-up studies conducted during the years 1985 to 1987 found that RR children maintained their gains over comparison children and continued to perform within the average level two years after discontinuing RR (DeFord, Pinnell, Lyons, & Young, 1987). By 1988, the Ohio project had expanded to serve 3,000 children in 143 school districts. In essence, the RR program helped underachieving students make rapid gains in reading by fostering student independence and enabling them to continue to do well after completing the program.

The success of RR programs in English, particularly with low-income students in Ohio and bilingual Maori students in New Zealand, prompted the development of a program in Spanish. Development began in the 1988-89 school year with funds from an Arizona district's Chapter 1 office. The district's decision to develop a Spanish RR program was influenced by several other factors. First, the district has a large and extensive population of language minority students who are receiving initial literacy instruction in Spanish in Tucson. This population includes first grade students who need extra assistance in initial literacy acquisition.

Second, the district has a formal language policy that establishes maintenance of two languages and development of bilingualism and biliteracy as fundamental educational goals for all district language minority students (District Policy 1110, 1981). Development of a RR program in Spanish was deemed the most theoretically sound approach given the research in bilingual education that had found the use of the child's native language to be the most appropriate medium of instruction (Cummins, 1989; Krashen & Biber, 1988; Ramírez, Yuen, & Ramey, 1991), and the research in RR which emphasized children's competence and not their deficits (Clay, 1989; Pinnell, 1990).

The Development of Descubriendo La Lectura

There are numerous considerations to be addressed when adapting an English language program for students from other cultural and linguistic groups. For Descubriendo La Lectura (DLL), such issues included differences in language and culture between Spanish-speaking students and their English-speaking counterparts, as well as the need to reconstruct all program components into Spanish.

Initial program development included the identification of children's literature books in Spanish for use in the program, the development of a Spanish Observation Survey, and the training of three Spanish-speaking Reading Recovery/Descubriendo La Lectura teachers. Currently, the program has over 300 children's literature books in Spanish which are written at 28 different levels of difficulty. In Spanish, as in English, the inventory of books provides the reading material for DLL, but does not recommend sequence.

The Spanish Observation Survey (*El Instrumento de Observación del Desarrollo Literato Principiante*) was created for use in the DLL program as a reconstruction of the English Observation Survey originated by Clay (1989). Studies conducted by Escamilla and Andrade (1992), and Escamilla, Basurto, Andrade, and Ruíz (1992) found the Spanish reconstruction to be valid and reliable. The Spanish Observation Survey consists of six observational tasks that collectively provide a profile of a student's reading repertoire. These observational tasks include: (a) letter identification, (b) word test, (c) concepts about print, (d) writing vocabulary, (e) dictation, and (f) text reading.

While the Spanish DLL program was being created, it was simultaneously being field tested with students. Case study results of the field testing included 14 students (2 in 1989-90 and 12 in 1990-91). Results of this field testing demonstrated that DLL, like RR, was having a positive impact on students (Escamilla & Andrade, 1992; Escamilla, Basurto, Andrade, & Ruíz, 1992). Positive results from these studies led to the expansion of the DLL program to serve more students, involve more teachers in the training program, and expand the research efforts which resulted in this study.

Research Questions

The purpose of this study was to examine whether the Descubriendo La Lectura Program achieved acceleration with Spanish-speaking first grade students in a manner equivalent to English Reading Recovery programs in New Zealand and Ohio. As stated above, acceleration implies movement from being a struggling reader to being an average reader. Research questions generated for the study were:

1. How do DLL, control, and comparison children compare at the end of first grade on a variety of measures of reading ability?
2. How do DLL, control, and comparison children perform at the end of first grade on a nationally normed, standardized test?
3. How do DLL, control, and comparison children compare with the average progress of the total population of first grade students?
4. What proportion of successfully discontinued DLL students achieved end-of-year scores equivalent to the average band of first grade students who are reading in Spanish?

Methods and Subjects

Subjects for the study were 180 first grade, Spanish dominant students who attended school in a large urban Southern Arizona school district. Subjects included all Spanish-speaking, first grade students from six elementary schools who were receiving their initial literacy instruction in Spanish. Students were identified as being Spanish dominant on the basis of the Home Language Survey administered by the school district in September, 1991, and the Language Assessment Scales (LAS) test which was administered in both Spanish and English in October, 1991. Mean scores for all subjects on the LAS test were 3.9 in Spanish and 1.5 in English (the LAS is scored on a 5-point scale). These results clearly indicated that study subjects were dominant Spanish speakers and very limited in English.

In October, 1991, all 180 students were given the Spanish Observation Survey reconstructed for DLL and the Aprenda Reading Achievement Test (Nivel *Preprimario* – Subtests 2, 3, 4, and total reading). From these data for all six schools in the study, students who were in the bottom 20 percent were identified. Four of the schools had the DLL program and two did not. For the four schools with the DLL program, study subjects were chosen by using the results of the Spanish Observation Survey in combination with teacher recommendations as to which students were most in need of DLL. Teacher recommendations were documented via a procedure known as alternate ranking.

In alternate ranking, a teacher takes a copy of his or her class list and ranks the students according to his or her perceptions of student reading abilities. Teachers begin by identifying the strongest reader and ranking the child #1 and then identifying the weakest reader and ranking that child with the lowest class number. The procedure of alternate ranking (highest/lowest) continues until all students in the class have received a rank.

DLL subjects were those who received the lowest class ranking by their teachers and had the lowest scores on the Spanish Observation Survey. A total of 50 students were identified as DLL students for 1991-92. Of this total, 23 received the program.

In order to control for treatment effects that might result from having DLL trained teachers in regular classroom situations, control group students were chosen from two schools that had no DLL teachers nor a DLL program. Control group students were also selected on the basis of the results on the Spanish Observation Survey and the Aprenda Spanish Reading Achievement Test and were identified as being in the lowest 20 percent of their class. From this group, 23 control group students were identified. These students were children who could have benefited from the DLL intervention, but did not receive it.

From the six schools in the study, all students not identified as DLL or control group students were assigned to the comparison group (n = 134). All 180 study children (DLL, control, and comparison) were retested in May, 1992, using the Spanish Observation Survey and the Aprenda Spanish Reading Achievement Test (Nivel *Primer Nivel Primario* — Subtests 2, 3, and total reading).

For Research Question 1, all subjects were given the Spanish Observation Survey during October, 1991, and May, 1992. Mean pre and post-observation scores were compared for the three groups.

For Research Question 2, pretest and posttest results for DLL, control, and comparison group students on the Aprenda Spanish Reading Achievement Test were compared. Analyses utilized scores for the total reading. Because different forms of the test were used from the fall to the spring, (fall – Nivel *Preprimario*; spring – Nivel *Primer Nivel Primario*) student raw scores were converted to scaled scores for comparison and analysis. A t test was then used to analyze the significance of the difference between groups. The fall form of the Aprenda has three subtests of reading (*sonidos y letras* – sounds and letters, *lectura de palabras* – word reading, and *lectura de oraciones* – reading sentences). The spring form has only two forms (*lectura de palabras* – word reading and *comprehensión de lectura* – reading comprehension). For purposes of analyses, only total reading achievement test scores for each form were used.

Research Question 3 analyzed the reading progress of DLL, control, and comparison children compared to the average progress of the total group of first grade Spanish-reading students for the 1991-92 school year. Comparisons were made by analyzing October and May gains on tasks on the Spanish Observation Survey and on the Aprenda Spanish Achievement Test (total reading fall and spring). Average progress was considered to be ± .5 standard deviations from the mean of the total group (DLL+control+comparison). Comparisons were made for each of the observation tasks on the Spanish Observation Survey and for the total Aprenda Spanish Reading Achievement Test.

Research Question 4 was analyzed by calculating the percentage of DLL students who met and/or exceeded the end-of-year average band of achievement among all first grade students reading in Spanish. The average band was calculated for all six observation tasks of the Spanish Observation Survey and was calculated using the same method used for Research Question 3. Descubriendo La Lectura students included all students completing at least 60 DLL lessons including successfully discontinued and not-discontinued students.

Results

For Research Question 1, all subjects were given the Spanish Observation Survey during October, 1991, and May, 1992. Mean pre and post-observation scores were compared for the three groups and are presented for each group on Table 1.

All three groups made gains from the pretest to the posttest on all observation tasks. To test the significance of the difference in gains between the three groups, a *t* test for significance was applied. Results of the *t* tests are presented in Table 2.

In the fall of 1991, there were significant differences between the DLL group and the comparison group on all six observation tasks ($p < .001$). Further, these differences were statistically significant on all tasks with the comparison group showing significantly higher scores on all six tasks. By May, the DLL group had not only caught up to the comparison group, but had surpassed them. May, 1992 results showed the DLL students outperformed comparison students on all six observation tasks. Further, these differences were statistically significant ($p < .05$) on all observation tasks except text reading.

Differences between the DLL group and the control group were not significant on the Spanish Observation Survey during the fall on three tasks, but were significant on three others. Tasks with significant differences included Word Test ($p < .05$), Concepts about Print ($p < .05$), and Dictation ($p < .001$). These differences favored the control group who had started ahead of the DLL group on all measures. Spring results, however, indicated that there were statistically significant differences between the DLL and control group on all six observation tasks. The DLL group significantly outperformed the control group ($p < .05$) on all measures.

Between group comparisons for the control and comparison groups showed that in the fall of 1991, there were statistically significant differences between the two groups on each of the observation tasks ($p < .01$). During the fall, the performance of the comparison group was statistically superior to the control group. However, during the spring of 1992, results indicated that while the mean scores for the comparison group were still above those of the control group for all six observation tasks, these differences were not statistically significant. Both groups made gains. However, the control group did not catch up to the comparison group and the DLL group did.

Research Question 2 examined the differences between the DLL, control, and comparison groups on a standardized test of reading achievement. For this comparison, the Aprenda Spanish Achievement Test was used. All three groups took this test in October, 1991, and May, 1992. Between October, 1991, and May, 1992, comparisons were made on the total reading (*lectura* total) scores.

For this comparison, student raw scores were converted to standard scores and percentiles. Standard scores and percentiles for the DLL, control, and comparison groups are presented on

Table 1

Means and Standard Deviations for Descubriendo La Lectura (DLL) Children, Control Group Children, and Comparison Group Children

Observation Task	Month	*DLL Children n=23 mean	SD	Control Group Children n=23 mean	SD	Comparison Group Children n=134 mean	SD
Letter Identification (Max=61)	September	18.9	12.9	24.0	11.78	33.4	17.0
	May	54.7	8.8	47.6	13.3	49.1	13.5
Word Test (Max=20)	September	0.0	0.0	0.3	0.69	3.6	5.6
	May	15.9	6.1	10.3	7.56	11.7	8.0
Concepts About Print (Max=24)	September	6.0	2.9	8.3	2.98	10.7	3.7
	May	16.0	3.4	12.7	3.5	14.3	4.1
Writing Vocabulary (10 Minutes)	September	3.0	1.8	4.6	3.49	9.7	10.8
	May	48.5	14.5	25.7	18.8	32.7	20.8
Dictation (Max=39)	September	2.6	4.0	9.3	13.9	16.2	11.5
	May	33.8	6.5	25.6	14.2	29.1	10.4
Text Level Reading (Max=28)	September	1.6	.95	1.6	0.99	3.6	3.8
	May	13.9	8.6	6.2	5.2	11.4	9.6

*Includes both successfully discontinued and not-discontinued program children who received at least 60 DLL lessons.

Table 3. Standard scores for all three groups were higher in May than October. However, when the standard scores were connected to percentiles, only the DLL group and the control group made gains. The DLL group went from the 28th percentile to the 41st percentile while the control group went from the 26th to the 28th percentile. The comparison group dropped from the 35th to the 31st percentile. If one considers the 50th percentile to be an indicator of a national average, it is important to note that the DLL group is the only group approaching this national average.

Research Question 3 examined how DLL, control, and comparison group children compared to the average progress of all first grade students. This comparison was made using the six observation tasks of the Spanish Observation Survey and the Aprenda Spanish Reading Achievement Test-Total Reading Score. For each of the measures, the average band was calculated from the mean and standard deviation. The average band was considered to be ± .5 standard deviations from the mean. For the six observation tasks on the Spanish Observation Survey student raw scores were used to calculate average. For the Aprenda Spanish Reading Achievement Test scaled scores were used. This procedure for determining whether student progress was average was the same method used at The Ohio State University when studying the impact of reading on English-speaking students (DeFord, Pinnell, Lyons, & Young, 1987).

Tables 4 through 9 illustrate the gains made by each study group for each of the measurement criteria. Gains for each group are compared to the band of what is considered average progress.

Table 2
t Values and Levels of Significance for DLL, Control, and Comparison Group Children on Spanish Observation Survey

Observation Task		DLL/ Control	DLL/ Comparison	Control/ Comparison
Letter Identification	Fall	1.40	4.73*	3.29***
	Spring	2.13**	2.69**	0.5
Word Test	Fall	2.14**	7.5*	6.6*
	Spring	2.77**	2.89***	0.81
Concepts About Print	Fall	2.64**	6.81*	3.43***
	Spring	3.27***	2.09**	1.98
Writing Vocabulary	Fall	0.68	6.63*	4.32*
	Spring	4.60*	4.49*	1.62
Dictation	Fall	5.78*	10.54*	5.31*
	Spring	2.52	2.90	1.13
Text Reading	Fall	0.069	5.13*	5.13*
	Spring	3.67***	1.26	0.397

* $p < .001$
** $p < .05$
*** $p < .01$

Table 3
Aprenda Spanish Achievement Test Gain Scores for DLL, Control, and Comparison Groups

Group	Fall 1991		Spring 1992		Gain
	Mean Scaled Score	Percentile	Mean Scaled Score	Percentile	(In Percentile Points)
DLL Group	455	28th	521	41st	+13
Control Group	453	26th	503	28th	+ 2
Comparison Group	460	35th	508	31st	- 4

By the spring testing dates DLL students had reached the average band on all measurement criteria. On one task (writing vocabulary), the spring mean for DLL students was above the average band. This is interpreted as an indication that DLL students have accelerated to a level of average according to these criteria, and are demonstrating that the theory of student acceleration in DLL programs can work in Spanish as well as in English. As with Research Questions 1 and 2, DLL students surpassed both control and comparison students in May on all criteria.

Table 4
Letter Identification Scores of Total DLL Group, Control, and Comparison Groups Compared with Average Band of First Grade Spanish-Speaking Children

	DLL mean	Control mean	Other mean
Fall	18.9	24	33.4
Spring	54.7	47.6	49.1

Average band = ± .5 standard deviations from *mean*
mean = 49.8 (Average band = 43.2 – 56.4)
Letter Identification (61 total)

Table 5
Word Test Scores of Total DLL Group, Control, and Comparison Groups Compared to the Average Band of First Grade Spanish-Speaking Children

	DLL mean	Control mean	Other mean
Fall	0.0	.3	3.6
Spring	15.9	10.3	11.7

Average band = ± .5 standard deviations from *mean*
mean = 12.2 (Average band = 8.2 – 16.2)
Word Test (20 total)

Table 6
Concepts About Print Scores of Total DLL Group, Control, and Comparison Groups Compared to the Average Band of First Grade Spanish-Speaking Children

	DLL mean	Control mean	Other mean
Fall	6.0	8.3	10.7
Spring	16.0	12.7	14.3

Average band = ± .5 standard deviations from *mean*
mean = 14.5 (Average band = 10.4 – 16.6)
Concepts About Print (24 total)

Table 7
Writing Vocabulary Scores of Total DLL Group, Control, and Comparison Groups Compared to the Average Band of First Grade Spanish-Speaking Children

	DLL mean	Control mean	Other mean
Fall	3.0	4.6	9.7
Spring	48.5	25.7	32.7

Average band = ± .5 standard deviations from *mean*
mean = 34.7 (Average band = 24.3 – 45.1)
Writing Vocabulary (10 minute limit)

Table 8
Dictation Scores of Total DLL Group, Control, and Comparison Groups Compared to the Average Band of First Grade Spanish-Speaking Children

	DLL mean	Control mean	Other mean
Fall	2.6	9.3	16.2
Spring	33.6	25.6	29.1

Average band = ± .5 standard deviations from *mean*
mean = 29.1 (Average band = 24.6 – 34.8)
Dictation (39 total)

Table 9
Text Reading Scores of Total DLL Group, Control, and Comparison Groups Compared to the Average Band of First Grade Spanish-Speaking Children

	DLL mean	Control mean	Other mean
Fall	1.6	1.6	3.6
Spring	13.9	6.2	11.4

Average band = ± .5 standard deviations from *mean*
mean = 11.7 (Average band = 6.9 – 16.5)
Text Reading (28 maximum)

Control and comparison students, on the other hand, also made progress from fall to spring. Control group students reached the average band of progress on five out of six of the observation tasks and comparison students were in the average band on all observation tasks. However, progress of both groups lagged behind the DLL group at statistically significant levels.

Research Question 4 examined the proportion of DLL students who successfully achieved end-of-year scores on measures of Spanish reading that were equivalent to the average band. In other words, aside from the mean for all students in the DLL group, it was determined how many actually accelerated into the average group on all measures. For this question, the Spanish Observation Survey was once again utilized. For the twenty-three children who participated in the DLL program, each of their scores on the May, 1992, observation tasks was compared to the average band scores used for Research Question 4. The number of students achieving average scores for each observation task was then noted. After all scores were calculated, the percentage of DLL students achieving in the average range was calculated. Scores and percentages are presented in Table 10. Twenty-one of the 23 DLL students (91 percent) achieved end-of-year scores on all six observation tasks that either equaled or exceeded the average. This result is interpreted as another indicator that the DLL program is achieving student acceleration and is positively impacting program students.

Table 10
Numbers and Percentages of Descubriendo La Lectura Children in End-of-Year Average Band

Measure	Average Band	Met or Exceeded Number	%	Met or Exceeded Number	%
Letter Identification (61 total)	43.2 – 56.4	21	91%	2	9%
Word Test (20 total)	8.2 – 16.2	21	91%	2	9%
Concepts about Print (24 total)	10.4 – 16.6	22	96%	1	4%
Writing Vocabulary (10 minutes)	24.3 – 45.1	21	91%	2	9%
Dictation (39 total)	24.6 – 34.8	22	96%	1	4%
Text Reading (28 total)	6.9 – 16.5	17	74%	6	26%

Note. This group includes both successfully discontinued and not-discontinued program children who received at least 60 DLL lessons.

Discussion

The data reported establish that the DLL program achieved acceleration with Spanish-speaking students who were struggling while learning to read in Spanish. Its impact on students could be interpreted to be positive as DLL program students made significant gains in their literacy acquisition during the course of this project. Further, these gains were significant

when compared to a control group of children who were also struggling in Spanish literacy, but did not have the DLL program. Fall and spring differences between the DLL and control group students were significant on all measurement criteria. Even more significant was the fact that DLL student learning growth surpassed that of a comparison group of first grade students learning to read in Spanish. The comparison group consisted of students who were not in the lower 20 percent of their class (all were above that level). Fall and spring differences between the DLL and comparison groups were also significant on all measurement criteria. These findings are seen as evidence to support the theory that Descubriendo La Lectura, like Reading Recovery, can help students who are struggling to learn to read in a relatively short period of time (12-16 weeks). Further, the program accelerates the students to the point of being on par with average readers in a class. In fact, on all measurement criteria used in the study, DLL students not only caught up with their average peers, but surpassed them at statistically significant levels. While this finding is greatly encouraging for DLL students, it raises some concerns with regard to the quality of Spanish reading instruction for children in the regular bilingual classrooms. The overall instructional program in Spanish literacy is one that merits further study and consideration.

While the research is positive relating to the potential of the DLL program in Spanish, it must be emphasized that this project involved only twenty-three students. Additional data need to be collected at other sites and with other cohorts of students in order to provide additional evidence as to the initial effectiveness of the program in Spanish. These data, however, provide evidence that the program has been highly effective with the children who were involved.

Of equal importance is the extent to which children involved in this program will be able to sustain the initial benefits of the program as they move on to other grade levels and as they make the transition from reading in Spanish to reading in English. These twenty-three children will become the first data bank for a longitudinal study that will examine the sustaining effects of DLL across grade levels and the transfer of DLL strategies from Spanish to English. It can be concluded, however, that initial results of this study with this group of children demonstrated that the program has a great deal of promise in assisting children who are struggling to become literate.

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