NDEC Report: Remarkable Level of Success in Changing Academic Achievement

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The 2007–08 school year marked the 23rd year of Reading Recovery in the United States. The results of the national evaluation demonstrated a remarkable level of success in changing the academic achievement of at-risk first-grade children.

Summary of Reading Recovery Outcomes

During the 2007–08 school year, 89,871 Reading Recovery children were served by 10,664 Reading Recovery teachers in 6,432 schools in 2,040 school districts. These teachers were supported by the work of 473 teacher leaders at 387 teacher trainer sites. Twenty-one university training centers provided professional development and support (Table 1).

As observed in previous years, the demographics of the Reading Recovery children differ from those of their schools' general population, represented by the *random sample*. Fifty-eight percent of the students participating in Reading Recovery during the 2007–08 school year were White compared with 65% of the random sample. Reading Recovery children were more likely to receive free or reduced-price lunch (61% versus 47% of the random sample) and to be boys (58% versus 50% of the random sample). Of all the children served in Reading Recovery, 59% reached the average level of performance of their class and their lessons were *discontinued*. Another 20% were identified for *recommended* action to determine appropriate support for ongoing instruction and assessment, 15% received *incomplete* interventions, and 4% *moved* during instruction. Only 2% were classified as *none of the above*, indicating unusual or rare circumstances. Of the children served who received a complete intervention, 75% reached average levels of performance of their class in 15.6 weeks.

Table 1. Participation in Reading Recovery in the United States 2007–08

Entity	n
University Training Centers	21
Teacher Training Sites	387
States and Federal Entities*	49
Systems	2,040
Buildings	6,432
Teacher Leaders	473
Teachers	10,664
Reading Recovery Students	89,871
Random Sample for RR	12,084

*including Bureau of Indian Affairs, Department of Defense Domestic, and Department of Defense Overseas

Table 2. Comparison of Spring Mean Scores on the Tasks of the Observation Survey for Discontinued and Recommended Reading Recovery Children, United States, 2007–08

Observation Survey Task	Discontinued Children	Recommended Children
Text Reading Level	19.3	10.0
Writing Vocabulary	56.1	39.5
Hearing and Recording Sounds in Words	36.0	32.7
Letter Identification	53.5	52.5
Ohio Word Test	19.1	15.4
Concepts About Print	21.0	18.2

Table 2 presents the mean Observation Survey scores of children whose lessons were discontinued because they reached average levels of performance and for children who were recommended for further consideration and action. At the end of their first-grade year, scores on the Observation Survey for children who successfully completed the intervention (discontinued status) confirmed that these students were performing at a first-grade level of achievement. Although children who were recommended for further action did not reach levels of average, first-grade performance, they made impressive progress on reading and writing tasks. While these children may find typical second-grade instruction somewhat challenging, they will bring to the task considerable strengths, especially in knowledge of print concepts, letters, words, and sounds. Text reading continues to be the most-challenging task for these recommended children.

Table 3. Proportion of Students Scoring in Each National Achievement Group on Text Reading Level: United States, 2007–08

National Achievement Group*	Discontinued				Complete Interventions			
	Fall		Year-End		Fall		Year-End	
	n	%	*n*	%	*n*	%	*n*	%
High	389	1	190	5	399	0	1,895	3
High-Average	501	15	5,420	14	6,014	11	5,499	10
Average	8,303	22	20,402	55	10,564	19	21,719	40
Low-Average	8,852	24	8,086	22	12,867	24	11,079	20
Low	13,582	36	929	2	23,248	43	12,900	24

*National Achievement Group as determined by statistical analyses of the national random sample.

Reading Recovery children who reached grade-level performance (discontinued status) demonstrated a dramatic change in their ranking in the national achievement groups from the beginning to the end of the year (see Table 3). In the fall, 36% of the Reading Recovery children whose lessons were discontinued scored in the lowest national achievement group; whereas, the number of these same students scoring in the lowest national achievement group at the end of the year was only 2%. Similar changes in performance were also noted by classroom teachers. They perceived 60% of these children as below average in reading in the fall. However, by year-end only 24% were considered below average by the teachers, and 74% were considered average or above.

Summary of Descubriendo la Lectura (DLL) Outcomes

Descubriendo la Lectura (DLL), the reconstruction of Reading Recovery in Spanish, is for first graders who receive their initial literacy instruction in Spanish. During the 2007–08 school year, 1,150 DLL children were taught by 156 teachers (see Table 4). These children were served in 127 schools in 38 school districts in 7 states. The teachers received professional development support from 39 teacher leaders. Of the children who participated in DLL, 56% were boys and 99% were Hispanic. Most children (96%) qualified for free or reduced-price lunches.

Of all the DLL children served, 56% reached average reading levels of their classrooms within an average of 14.8 weeks. Another 20% were recommended for further evaluation, 5% moved, and 16% received incomplete interventions.

Table 4. Participation in Descubriendo la Lectura in the United States 2007–08

Entity	n
University Training Centers	4
Teacher Training Sites	34
States	7
Systems	38
Buildings	127
Teacher Leaders	39
Teachers	156
DLL Students	1,150
Random Sample for DLL	217

The DLL participants also showed progress in their reading and writing achievement between fall and year end as presented in Table 5.

Analysis of Comparison Group Performance — Reading Recovery and Descubriendo la Lectura

Reading Recovery results

As part of the evaluation methodology, the outcomes for Reading Recovery children who reached average grade-level performance (discontinued status) are contrasted with two comparison groups tested in the fall, at mid-year, and at year-end. One comparison group is the national random sample comprised of two students from each Reading Recovery school. In the 2007–08 year, 12,094 random sample children were assessed on the Observation Survey at each of the three testing points during the year.

The second of the comparison groups is a *low comparison group* consisting of the lowest 20% of the children comprising the random sample who are not Reading Recovery students. This group is identified statistically by researchers at the National Data Evaluation Center (NDEC) using a

Table 5. Comparison of Fall and Year-End Mean Scores on the Tasks of the Observation Survey for Discontinued and Recommended DLL Children, United States, 2007–08

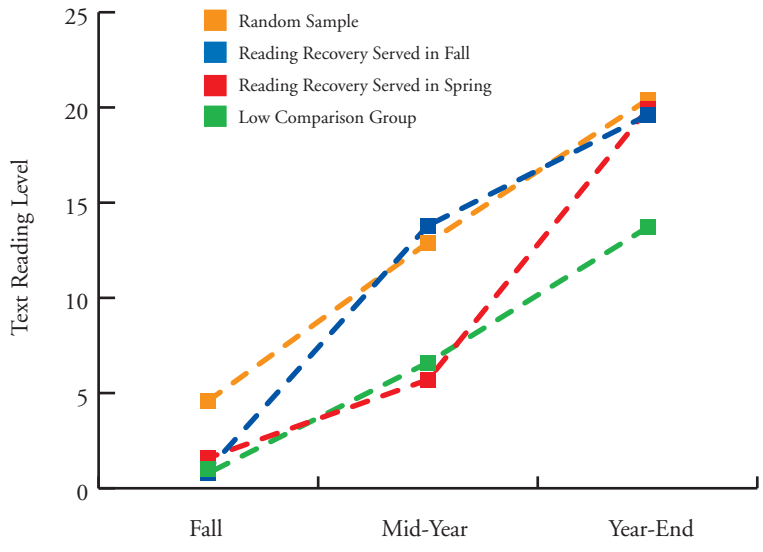
	Fall Mean Score		Year-End Mean Score	
Observation Survey Task	Discontinued Children	Recommended Children	Discontinued Children	Recommend Children
Análisis Actual del Texto	0.8	0.4	19.1	9.7
Escritura de Vocabulario	8.9	4.6	48.5	35.1
Oír y Anotar los Sonidos en las Palabras	20.5	11.7	38.3	35.0
Identificacíon de Letras	44.7	35.3	59.1	56.0
Prueba de Palabras	5.2	2.2	19.5	16.1
Conceptos del Texto Impreso	9.9	8.5	19.7	16.5

technique called *principle component analysis*. Their scores from each of the testing periods are examined to identify the progress made by low-performing readers who do not have access to the Reading Recovery intervention. Figure 1 presents the results of the multiple, text reading assessments for the four groups: Reading Recovery students served in the fall, Reading Recovery students served in the spring, the random sample group, and the low comparison group.

This figure shows that fall-entry Reading Recovery students and the low comparison group began the school year equally low in text reading, with average text level scores of approximately level 1. Both are somewhat lower than the spring-entry Reading Recovery students in the fall and much lower than the random sample, whose mean score was approximately level 5. At mid-year, fall-entry Reading Recovery children had closed the achievement gap in text reading in comparison to the random sample, with the two groups scoring at approximately levels 14 and 13 respectively. The Reading Recovery children who had not been served by mid-year and the low comparison group were six to seven text levels below the random sample, indicating a widening achievement gap in comparison to the achievement differences observed in the fall.

At the end of the school year, the spring-entry Reading Recovery group had also closed the achievement gap in comparison to the random sample. Thus, the two Reading Recovery groups with discontinued status (fall- and spring-entry students) and the random sample students had comparable text level scores at year-end (levels 19–20). The low comparison group, with no access to Reading Recovery instruction, ended the year substantially lower than the Reading Recovery and random sample students. The mean performance of the low comparison group was approximately level 14, an achievement gap of approximately six text levels. The results confirm the power of

Figure 1. Gains on Text Reading Level for Reading Recovery Students with Discontinued Status, Random Sample Students, and the Low Comparison Group: United States, 2007–08



Reading Recovery to close the reading achievement gap for low-performing first-grade children.

Descubriendo la Lectura results

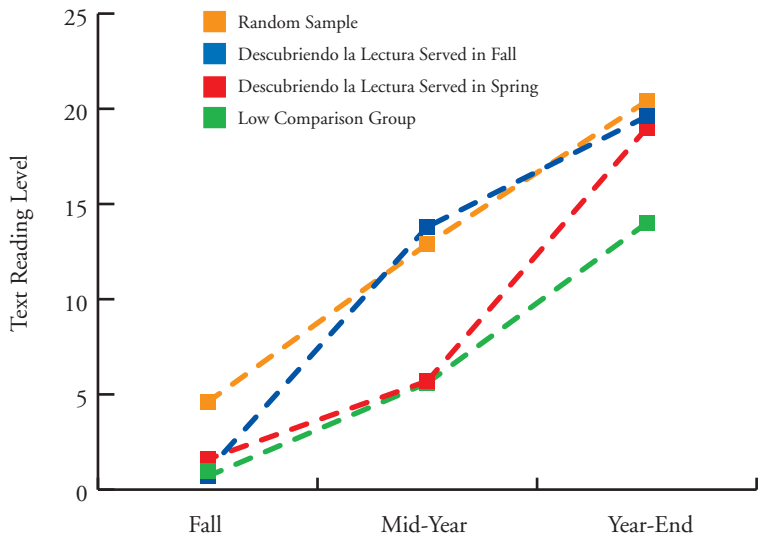
Using the same procedures for identifying groups, a similar pattern of outcomes was demonstrated by those children participating in Descubriendo la Lectura (DLL) who had achieved discontinued status. The outcomes on text level assessments for two DLL groups (fall-entry and spring-entry groups with discontinued status), the national DLL random sample group, and a low comparison group are presented in Figure 2. Identified by principle component analysis, the low comparison group is the lowest 20% of the national DLL random sample not receiving DLL instruction.

DLL students whose fall text reading scores (approximately text level 1) were substantially lower than the scores of the random sample (approximately text level 5) closed the achievement gap in text reading as a result of the DLL intervention. Fall-entry DLL students had achieved this by mid-year when they scored slightly above the random sample group with a mean text reading level of approximately 14. Spring-entry DLL students closed the gap with the random sample by year-end when both DLL groups (DLL students with discontinued status) and the random sample students scored at levels 19 and 20.

In contrast, those children in the low comparison group, who did not have access to DLL instruction, did not close the achievement gap with the random sample students. They began first grade with a mean text level achievement score comparable to the fall-entry DLL students and lower than the random sample. At mid-year and year-end, their mean text level scores were substantially lower than the mean scores for both the random sample students and those students who had received DLL instruction (approximately seven levels below at mid-year, six levels below in the spring). Again, it appears that the gap in achievement for students who began the school year well below the random sample and who were unable to receive DLL instruction ended the year with a wider gap in text reading level achievement than observed in the fall. The results confirm the positive impact of the DLL intervention on closing the achievement gap observed between random sample children and low-performing students.

The national evaluation data provide support for Reading Recovery's and Descubriendo la Lectura's roles as response to intervention (RtI) approaches.

Figure 2. Gains on Text Reading Level for Descubriendo la Lectura Students with Discontinued Status, Random Sample Students, and the Low Comparison Group: United States, 2007–08



Conclusion

Reading Recovery and DLL continue to provide the lowest-achieving first-grade children with the high-quality interventions they need to close the literacy gap with their respective peers. Without access to Reading Recovery, or DLL for the Spanish-speaking children, the achievement gap demonstrated at the beginning of the year between the lowest-achieving readers and writers and their peers only gets wider — at mid-year and at year-end. This is observed for both Reading Recovery and DLL intervention children who achieve discontinued status.

Children who participated in Reading Recovery and DLL who were recommended for further action demonstrated significant gains in reading and writing performance. While their text reading levels remained behind both the random sample groups and groups of children whose lessons were successfully discontinued (from either Reading Recovery or DLL instruction), they demonstrated many strengths for their teachers to draw upon when planning future instruction for these children.

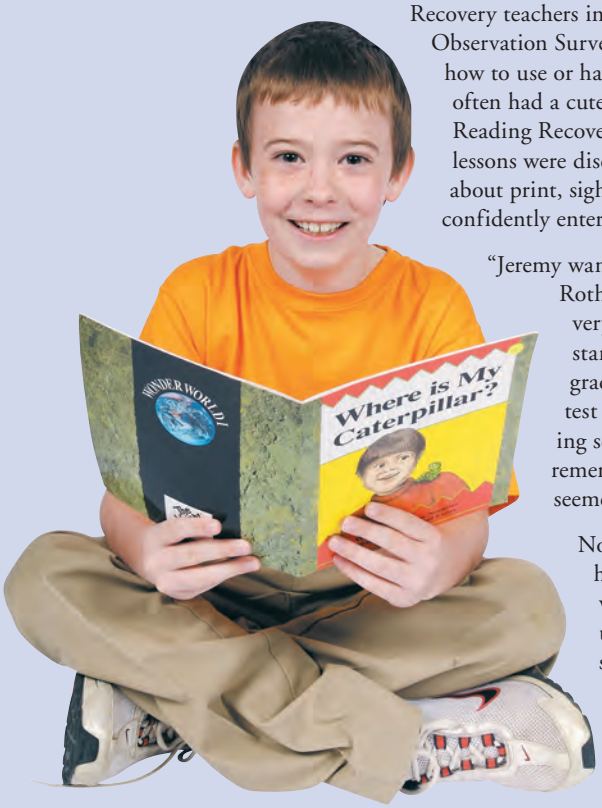
The national evaluation data provide support for Reading Recovery's and DLL's roles as response to intervention (RtI) approaches. Because most children with complete interventions reached grade-level expectations, the number of children with extreme literacy difficulties was dramatically reduced. For those who made progress but did not reach grade-level expectations, the intensive diagnostic period of instruction offered by the Reading Recovery and DLL teachers provides important data on each child's abilities for future instructional decisions. Both outcomes yield countless benefits for the child, the teacher, the school, and the education system.

About the Author

NDEC Director Sandra Ortega has worked in evaluation for over 25 years. She has authored several articles based on her work as an evaluator and has presented at professional conferences at the local, state, national, and international levels. She received a Ph.D. in educational policy and leadership; quantitative methods and evaluation research at The Ohio State University in 2006.

About the Cover

Jeremy Slatton began his first-grade year at Bowie (Texas) Elementary School with the support of Reading Recovery teachers in literacy group and was selected as a second-round Reading Recovery student. His Observation Survey scores indicated that he had some knowledge about reading, but he didn't know how to use or have strategies for using that information. "He was always a quiet young man and he often had a cute little twinkle in his eye indicating a good sense of humor," said Benita Miller, his Reading Recovery teacher. After 14 weeks of one-to-one instruction to clear up "tangles," Jeremy's lessons were discontinued. His text reading had improved from Level 2 to Level 18, and his concepts about print, sight vocabulary, and written vocabulary increased to levels that allowed him to confidently enter second grade.



Jeremy entered second grade with confidence

"Jeremy wanted very much to achieve certain goals, and then proved that he could," said Janet Roth, Jeremy's second- and third-grade teacher. "He loved to read and to laugh. I was very lucky to have taught him for 2 years." In both first and second grades, Jeremy's standardized test scores were in the top two-thirds for his age/grade. In third and fourth grades, Jeremy passed the TAKS (Texas Assessment of Knowledge and Skills) reading test on the first try with very strong scores. In addition, his fourth-grade TAKS writing score was well above the average minimum. His fourth-grade teacher, Pam Harrison, remembers being surprised at what a good reader he was, and that he liked to read. "He seemed to enjoy reading his library books; he was not one I had to remind to read."

Now a fifth grader at Ennis Intermediate School, Jeremy is a student willing to work hard to obtain his goals, according to his teacher Phelecia Beasley. "He diligently works to finish his work on time and is not afraid to ask questions to make sure he understands the work. He shows concern about wanting to be successful in class," she said, adding "he is the type of student you enjoy working with because you know he will give his best each day."

Today, Jeremy likes to read fiction and adventure stories, but what he most wants people to know about him is that he's "really, really good at math." He likes to play basketball and ride his bike ("I ride it a lot; I'm really athletic"), but only after doing the things that have to be done first — like homework. "It's easier that way," he said.