IDEC Evaluation Report 2018–2019

Data Again Show Strong Impact on Student Learning

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This report features the results of the 2018–2019 school year for the Reading Recovery® and Descubriendo la Lectura interventions in the United States. As described herein, Reading Recovery and Descubriendo la Lectura have continued to maintain strong outcomes, both in terms of progress across the length of the intervention, and as contrasted against comparison groups. These results are also comparable to those of the 2017–2018 school year (Brymer-Bashore, 2019).

Summary of Reading Recovery Outcomes

Characteristics of participants

During the 2018–2019 school year, Reading Recovery was implemented by 15 university training centers responsible for overseeing the intervention in schools located in 42 states (as shown in Table 1). More than 32,000 first-grade children were selected to participate in the one-to-one intervention. These children received the intervention from 4,157 Reading Recovery teachers who were supported by 253 teacher leaders in 207 training sites serving over 900 school districts. There were a total of 2,778 schools implementing Reading Recovery, and these schools were located in urban (25.9%), suburban (35%), and rural areas (39.1%).

Demographic information for the participating Reading Recovery students reveal that 52% were boys and 68% were eligible for free or reduced lunch. Children represented different ethnic backgrounds including 57% White, 18% Hispanic, 16% African American, 2% Asian American, 1% Native American, and 6% representing either multiple races or other ethnic backgrounds.

The professional experiences of Reading Recovery teachers participating in the annual data collection process include a mean of 20.7 years of teaching experience and a mean of 8.8 years teaching Reading Recovery and/or Descubriendo la Lectura. On average, these teachers taught 7.5 Reading Recovery children during the current school year and 41.4 children beyond their Reading Recovery load. Thus, accounting for all teaching roles/assignments during this academic year each teacher taught an average of 48.9 children.

Table 1. Participation in Reading Recovery in the United States, 2018–2019

Entity	n
University Training Centers	15
Teacher Training Sites	207
States	42
School Systems	921
School Buildings	2,778
Teacher Leaders	253
Teachers	4,157
Reading Recovery Students	32,444
Random Sample for RR	2,483
Tested-Not-Instructed for RR	5,282

NOTE: Some students in the Control Group of the random assignment study did not receive Reading Recovery. Their data are excluded from results in other tables in this report but included here.

Results

The assessment used in this analysis of outcomes for Reading Recovery was *An Observation Survey of Early Literacy Achievement* (Observation Survey) (Clay, 2013). This was administered to Reading Recovery students, a random sample of comparison students, and a sample of tested-not-instructed (TNI) students at fall, mid-year, and year-end. TNI students were those students considered for Reading Recovery, tested with the Observation Survey in the fall and again at mid-year, but not selected to receive Reading Recovery by the middle of the school year. They were also tested at year-end and comprised a second comparison group. Of the students who received a complete series of Reading Recovery lessons (n = 24,483, 76% of all served), end-of-intervention outcomes were as follows:

- 71% (n = 17,358) reached at least average levels of reading and writing achievement and their intervention programs were successfully *discontinued*.
- 29% (n = 7,125) made progress but did not demonstrate proficiency at average levels of reading and writing. These students were *recommended* for consideration of additional interventions.

Of the total group of students selected for Reading Recovery services (n = 32,434), 25% (n = 7,951) were not able to receive a full intervention for the following reasons:

- 74% (n = 5,871) were still in lessons at year-end without enough time in the school year to complete the intervention.
- 13% (n = 1,027) moved during the school year while still enrolled in lessons.
- 13% (n = 1,053) lessons were concluded early at the discretion of the school.

Three critical questions

These data were further examined to explore three critical questions regarding the impact of the Reading Recovery intervention.

The first question is whether Reading Recovery students who made significant progress and reached average levels of literacy closed the literacy achievement gap by the end of first grade, as compared to all other first-grade children who did not receive the intervention. To help answer this question, the average Observation Survey scores of discontinued Reading Recovery students were compared against all random sample students.

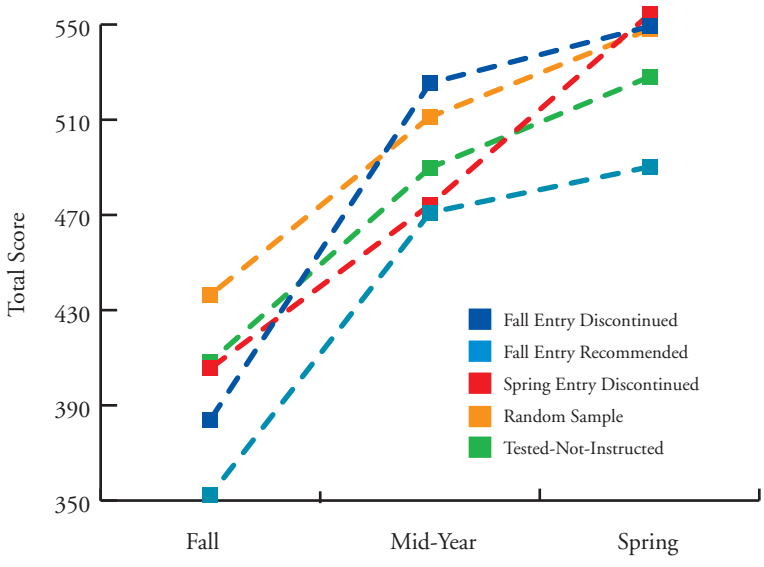
The second question is whether Reading Recovery students who made significant progress and reached average levels of literacy performed better by the end of the school year than they would have if they were not provided the intervention. For this question, the average Observation Survey scores of spring entry discontinued Reading Recovery students were compared to the Observation Survey scores of TNI students.

The third and final question is what kind of effect the Reading Recovery intervention had on students who made progress but didn't quite reach average levels of literacy performance, and what additional services were recommended for these children. As with the previous questions, the average Observations Survey scores will be examined, but this time only data from recommended students will be used and will be compared to discontinued students' data. Additionally, data about post-Reading Recovery recommendations will be examined.

Figure 1 shows the mean Observation Survey Total Scores for both discontinued and recommended Reading Recovery students served first (fall entry) during the school year, Reading Recovery students served second (spring entry), random sample students, and TNI students. The fall entry students were split into two groups, discontinued (n = 7,879) and recommended (n = 6,581). Spring entry students include only discontinued (n = 4,039) students. Only students with valid scores at all three tests points were included in the analysis.

As in past years, the students selected for fall entry into Reading Recovery services have the lowest Observation Survey scores. When these students are split into two groups based on mid-year outcomes, the recommended students start the school year, on

Figure 1. Mean Observation Survey Total Score for Reading Recovery Students with Completed Interventions (fall and spring entry), Random Sample Students, and Tested-Not-Instructed Students in the United States, 2018–2019



For this year's report, IDEC further explored the data to examine three critical questions regarding the impact of the Reading Recovery intervention.

average, with the lower Observation Survey scores than discontinued students. The spring entry and the TNI groups have similar and slightly higher fall scores, with the random sample students having the highest Observation Survey scores at the start of the year.

Question 1 — Did Reading Recovery students who made significant progress and reached average levels of literacy close the literacy achievement gap by the end of first grade, as compared to all other first-grade children who did not receive the intervention?

To answer question one, the growth of the fall entry discontinued students and the spring entry discontinued students were compared to the random sample students. As stated earlier, the random sample students start the school year with the highest Observation Survey scores, well above both categories of discontinued students. By mid-year, fall entry discontinued students have made accelerated growth and have surpassed the random sample students on the Observation Survey. Spring entry discontinued students made some growth during this time, but not nearly as much. By the end of the school year, spring entry discontinued students have received the intervention and have closed the remaining gap between them and the random sample. Our fall entry discontinued students have continued to learn on their own, in the classroom, and finish the school year with comparable scores on the Observation Survey as the random sample students. Hence, the data show that the Reading Recovery intervention helped successfully close the gap for these two categories of students.

Question 2 —Did Reading Recovery students who made significant progress and reached average levels of literacy perform better by the end of the school year than they would have if they were not provided the intervention?

For the second question, data from the spring entry discontinued students were compared to the TNI students. These student groups were purposefully selected because they were very similar at the start of the school year. Looking at Figure 1, in the fall, both of these student groups had very similar average Observation Survey scores (-.07 effect size, indicating a negligible difference). In the first part of the school year, neither group received the Reading Recovery intervention. By mid-year we can see that TNI students had a higher average Observation Survey score (-.3 effect size, a small difference in favor of the TNI). Spring entry discontinued students received the intervention and by the end of the school year, they had a much higher average Observation Survey score (.57 effect size, a medium difference in favor of the spring entry discontinued). Therefore, the data show spring entry discontinued students benefited from the intervention and accelerated past the TNI students to catch up to the random sample, while a moderate gap still exists between the TNI and random sample students (-.45 effect size).

Question 3 — What kind of effect did the Reading Recovery intervention have on students who made progress but didn't quite reach average levels of literacy performance, and what additional services were recommended for these children?

For the last question, two sources of data were examined. The first involved the typical comparison of average Observation Survey scores. The second involved data about what kind of recommendations were made for students who didn't reach average literacy levels. Starting once again with Figure 1, in the fall, when comparing fall entry discontinued students to fall entry recommended students, the recommended students are clearly starting lower than their discontinued counterparts on average, although there is overlap in the distribution of scores which makes it difficult to predict which students will benefit most from the intervention.

Both groups received the intervention and made accelerated progress (as characterized by the steep slope to their lines), but by the middle of the school year the recommended students had not quite reached average levels of literacy and had not caught up to the random sample like their discontinued counterparts. It might be tempting at this point to think the intervention failed these students. It is actually quite the opposite. The Reading Recovery intervention had a significant impact on narrowing the achieve gap between these students and the random sample. Additionally, now school literacy teams know that these children need a more long-term intervention and have a wealth of

Table 2. Post-Reading Recovery Recommendations for Fall Entry Students, 2018–2019

Responses	*n*	row%
Continued monitoring in the classroom with no further literacy intervention	435	6%
Small-group literacy instruction or intervention other than special education	4,808	67%
Referral for literacy-related special education services	1,684	24%
Retention in grade for literacy-related reasons	105	1%
None of these actions describe the recommendation	81	1%
No response	12	0%
Total	**7,125**	**100%**

data from Reading Recovery teachers to make informed decisions about what to try next.

To complete the analysis of the third question, we examined the data in Table 2 that shows what recommendations were made for the fall entry recommended students after Reading Recovery. The majority of students, 67% (n = 4,808), were recommended for either small-group literacy or an intervention other than special education. Another 24% (n = 1,684) were recommended for literacy-related special education services. The remaining 9% (n = *633)* either had some other action recommended or IDEC was missing data about the recommendation.

Figure 2. Mean Text Level Score for Reading Recovery Students with Completed Interventions (fall and spring entry), Random Sample Students, and Tested-Not-Instructed Students in the United States, 2018–2019

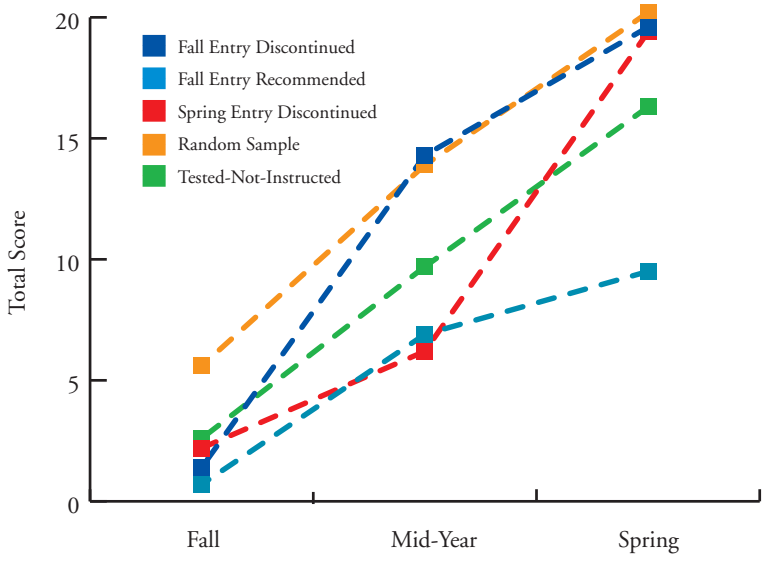


Figure 2 shows the results for the same five groups across the same three time points for Text Reading Level. The general trend as shown in Figure 2 is similar to that for the Observation Survey Total Score in Figure 1. The Reading Recovery discontinued students (both fall and spring entry) at year-end testing had not totally caught up to the random sample students. Note, however, that Reading Recovery discontinued students (both fall and spring entry) had reached grade-level expectations and had nearly achieved the text reading level of the random sample students.

Figure 2 also shows similar results when comparing the spring entry discontinued students to the TNI. Both students start at similar text level. By mid-year the TNI students have pulled ahead. But once the spring entry discontinued received the intervention, they accelerated ahead of the TNI students and met grade-level expectations. At the end of year, a noticeable text level gap still existed between the TNI and random sample students. Note that this gap had hardly changed from fall to year-end.

Further analyses examined the means and magnitude of mean differences (effect sizes) at fall and year-end testing between all Reading Recovery discontinued students and the random sample or TNI students. Tables 3 and 4 display the Observation Survey Total Score and individual Task Scores of fall entry and spring entry Reading Recovery discontinued students pooled together as compared with the random sample and TNI students respectively. For both tables, the far-right columns denote the effect sizes in terms of standardized mean differences. (Positive values indicate that the Reading Recovery

Table 3. Mean Fall and Year-End Total Scores with Effect Sizes for Successfully Discontinued Reading Recovery and Random Sample Students, 2018–2019

	Discontinued		Random Sample		Effect Size (*d*)	
Observation Survey Task	Fall	Year-End	Fall	Year-End	Fall	Year-End
Total Score	**392.7**	**550.8**	**437.5**	**548.1**	**-0.84**	**0.06**
Text Reading Level	1.7	19.6	5.6	20.2	-0.64	-0.08
Writing Vocabulary	12.3	54.9	20.4	54.2	-0.67	0.04
Hearing and Recording Sounds in Words	23.2	35.9	28.8	35.4	-0.67	0.17
Letter Identification	49.0	53.5	51.0	53.4	-0.39	0.06
Ohio Word Test	4.5	19.1	9.6	18.7	-0.84	0.17
Concepts About Print	13.0	21.0	15.2	20.5	-0.63	0.18

mean was greater than the comparison mean value.) The effect size measure utilized was Cohen's *d* (Cohen, 1988; Lomax & Hahs-Vaughn, 2012) which can be thought of in the metric of a standard deviation. Thus, a value of *d* = +1.00 would indicate that the Reading Recovery children had a mean score of one standard deviation above the comparison group. A common standard to judge *d* is that .2 is a small effect size, .5 a medium effect size, and .8 a large effect size.

As displayed in Table 3, mean Reading Recovery students' fall scores on all measures were substantially lower than the random sample, with medium to very large effect sizes (ranging from -.39 to -.84). By year-end testing, there were relatively small effect sizes in favor of the Reading Recovery students (ranging from .04 to .18), except for Text Reading Level (-.08). Thus the Reading Recovery sample began substantially below the random sample in the fall and by year-end had surpassed them on all but the Text Reading Level measure.

The fall and year-end test scores for Reading Recovery discontinued students (fall and spring entry combined) and TNI students are shown in Table 4. In fall testing, the Reading Recovery sample Total Score mean and individual task means were all lower than the comparison TNI group's scores, with effect sizes ranging from -.16 (small) to -.42 (medium). By year-end testing, the Reading Recovery students had surpassed the TNI students on all measures, with effect sizes ranging from .17 (small) to .58 (medium). Thus, the Reading Recovery sample began in the fall substantially below the TNI sample and by year-end had surpassed them for all measures.

In addition to these results, examination of the national data reveal the following outcomes of interest:

- First, on the Observation Survey Total Score, the discontinued students demon-

Table 4. Mean Fall and Year-End Total Scores with Effect Sizes for Successfully Discontinued Reading Recovery and Tested-Not-Instructed Students, 2018–2019

	Discontinued		Tested-Not-Instructed		Effect Size (*d*)	
Observation Survey Task	Fall	Year-End	Fall	Year-End	Fall	Year-End
Total Score	**392.7**	**550.8**	**408.6**	**528.2**	**-0.37**	**0.50**
Text Reading Level	1.7	19.6	2.6	16.3	-0.39	0.45
Writing Vocabulary	12.3	54.9	15.0	47.8	-0.31	0.42
Hearing and Recording Sounds in Words	23.2	35.6	25.5	34.6	-0.27	0.33
Letter Identification	49.0	53.5	49.8	53.1	-0.13	0.17
Ohio Word Test	4.5	19.1	6.4	17.9	-0.42	0.36
Concepts About Print	13.0	21.0	13.5	19.4	-0.16	0.58

Table 5. Participation in Descubriendo la Lectura in the United States, 2018–2019

Entity	n
University Training Centers	3
Teacher Training Sites	25
States	8
School Systems	28
School Buildings	81
Teacher Leaders	29
Teachers	81
DLL Students	496
Random Sample for DLL	262
Tested-Not-Instructed for DLL	0

NOTE: Some students in the Control Group of the random assignment study did not receive Descubriendo la Lectura. Their data are excluded from results in other tables in this report but included here.

strated acceleration from the 23rd percentile in the fall to the 45th percentile at year-end.

- Second, in regard to classroom teachers' reports of their reading group placements of Reading Recovery students, the discontinued students' placement in average or higher reading groups increased from 17% in the fall to 84% in these groups by year-end.
- Third, only 2% (N = 339) of all discontinued Reading Recovery students (N = 17,335) were referred to and placed in special education services following the intervention.

These are indications of the efficacy of the Reading Recovery intervention. At year end, discontinued students (a) have accelerated their literacy learning and have demonstrated performance within an average range on the Observation Survey Total Score; (b) have moved to the average, above average, or well above average reading groups; and (c) are not found to be referred for special education services in large numbers.

Summary of Descubriendo la Lectura Outcomes

Characteristics of participants

The Descubriendo la Lectura intervention—the reconstruction of Reading Recovery in Spanish—is designed for first graders who receive their initial literacy instruction in Spanish. Table 5 provides details about participation in Descubriendo la Lectura in the United States. For the 2018–2019 school year, 496 Descubriendo la Lectura children were instructed by 81 teachers. These Descubriendo la Lectura students attended 81 schools in 28 school districts located in 8 states. These teachers were supported by 29 teacher leaders. In addition, of all Descubriendo la Lectura students served, 47% were boys, 97% were Hispanic, and 95% qualified for free or reduced lunch. The schools these students attended were located in urban (49.3%), suburban (44.8%), and rural areas (6%).

Trained teachers had a mean of 18.8 years of teaching experience and 7.7 years of Descubriendo la Lectura and/or Reading Recovery teaching experience. On average, these teachers taught 5.8 Descubriendo la Lectura children during the current school year, and 29.3 children beyond their Descubriendo la Lectura load. Thus, accounting for all teaching roles/assignments during this academic year, the teachers instructed an average of 35.1 children.

Results

The assessment used in this analysis of outcomes for Descubriendo la Lectura was *Instrumento de observación de los logros de la lecto-escritura inicial* (Instrumento de Observación) (Escamilla et al., 1996). This was administered to both participating Descubriendo la Lectura students and a random sample of students for comparison purposes.

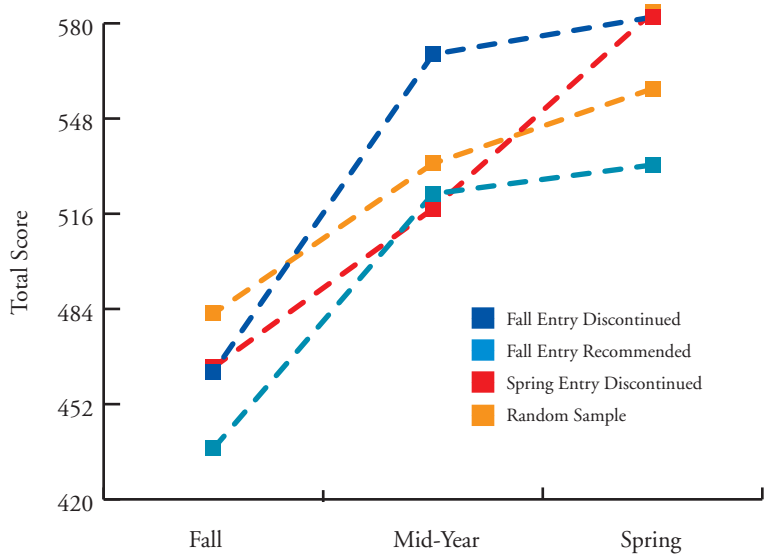
To secure a random sample, all Descubriendo la Lectura schools randomly selected four students and administered the Instrumento de Observación. This random sample was the only comparison group available for the current analyses.

> Results indicate that Reading Recovery and Descubriendo la Lectura continue to be amongst a very small number of educational interventions with strong impacts on student learning in the United States.

Descubriendo la Lectura schools had last collected TNI data in 2011–2012, but due to very small samples in subsequent years leading to unstable average scores, IDEC has not continued ongoing, annual TNI testing and related data analyses.

Of all students served in Descubriendo la Lectura, 35% (n = 170) reached the average reading levels of their peers and thus were discontinued successfully. Another 29%

Figure 3. Mean Instrumento de Observación Total Score for Descubriendo la Lectura Students with Completed Interventions (fall and spring entry), and Random Sample Students in the United States, 2018–2019



(*n* = 146) were recommended for further evaluation, 2% (*n* = 10) moved, and 30% (*n* = 148) received incomplete interventions. Of the students who completed the intervention (both discontinued and referred students), 54% were discontinued.

For further analyses, the random sample students' scores on the six tasks of the Instrumento de Observación were combined to create a Total Score (with a 0- to 800-point range) that reflects literacy development throughout the school year. This parallels the processes applied to Reading Recovery data described earlier.

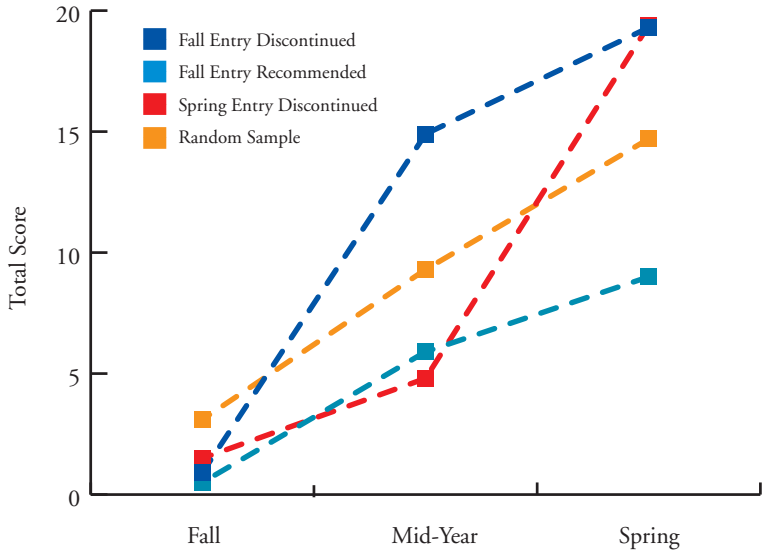
Among the fall entry, spring entry, and random sample groups, the largest growth from fall to mid-year on the Instrumento de Observación Total Score was for the fall entry discontinued Descubriendo la Lectura students (see Figure 3). From mid-year to year-end, the largest growth was for the spring entry discontinued Descubriendo la Lectura students. Together these results indicate that the greatest gain for all students observed was during the respective Descubriendo la Lectura intervention periods. Spring entry discontinued students and random sample students showed approximately the same gain from fall to mid-year. However, from mid-year to year-end, the spring entry discontinued Descubriendo la Lectura students outgained the random sample.

The fall entry recommended students also made substantial gains during their time in Descubriendo la Lectura. From fall to mid-year, the growth these students made was second only to the fall entry discontinued students. As seen in Figure 3, even though these students started much lower than their peers, they were able to noticeably narrow the gap on the Instrumento de Observación by mid-year and almost catch the random sample students. Similar to our previous analysis, the progress these students made is considered a success. A significant gap has been closed and now school literacy teams have extensive data on these students provided by Descubriendo la Lectura teachers, data that will allow them to make appropriate recommendations for more intensive support for these students. Table 6 shows the recommendation made for these students. The majority, 86% (*n* = 126), were either recommended for small-group literacy instruction/nonspecial education intervention, or referred to special education for literacy services. The remaining 14% either received continued monitoring in the classroom or some other type of service.

Table 6. Post-Descubriendo la Lectura Recommendations for Fall Entry Students, 2018–2019

Responses	*n*	row%
Continued monitoring in the classroom with no further literacy intervention	18	12%
Small-group literacy instruction or intervention other than special education	102	70%
Referral for literacy-related special education services	24	16%
None of these actions describe the recommendation	2	1%
Total	**146**	**100%**

Figure 4. Mean Análisis Actual del Texto Score for Descubriendo la Lectura Students with Completed Interventions (fall and spring entry), and Random Sample Students in the United States, 2018–2019



The trend for Text Level scores (see Figure 4) was very similar to the Total Score trend. By year-end testing, both fall and spring entry discontinued Descubriendo la Lectura students had substantially surpassed the scores on both measures as compared to the random sample group. In other words, both Descubriendo la Lectura groups began the school year behind the random sample, but caught up to and exceeded the random sample group by the end of the year.

In Table 7 are the mean scores and effect sizes (Cohen's *d*) for fall and spring entry Descubriendo la Lectura discontinued students combined, as well as the random sample students at both fall and end-of-year testing. In fall testing, the Descubriendo la Lectura sample, Instrumento de Observación Total Score mean, and individual task means were all lower than the comparison random sample group with effect sizes ranging from -.17 (small) to -.56 (medium). By year-end testing, the Descubriendo la Lectura students had surpassed the random sample students on all measures, with effect sizes ranging from .35 (small) to .69 (medium). Thus, the Descubriendo la Lectura sample began the fall substantially below the random sample and by year-end had surpassed them on all measures.

Other results noted in the data include the following:

- First, on the Instrumento de Observación Total Score, the discontinued students have accelerated their learning as shown in their progression from the 23rd percentile in the fall to the 58th percentile at year-end.
- Second, when considering the classroom reading group placements assigned by their teachers, the discontinued students' placements increased from 12% in the average or

Table 7. Mean Fall and Year-End Total Scores with Effect Sizes for Successfully Discontinued Descubriendo la Lectura and Random Sample Students, 2018–2019

	Discontinued		Random Sample		Effect Size (*d*)	
Instrumento de Observacíon Task	Fall	Year-End	Fall	Year-End	Fall	Year-End
Total Score	**464.1**	**582.5**	**483.4**	**558.2**	**-0.46**	**0.69**
Análisis Actual del Texto	1.1	19.3	3.2	14.7	-0.52	0.58
Escritura de Vocabulario	10.4	50.4	15.6	41.0	-0.49	0.61
Oír y Anotar los Sonidos en las Palabras	24.3	38.3	28.0	36.9	-0.33	0.35
Identificacíon de Letras	46.7	59.3	48.8	57.6	-0.17	0.39
Prueba de Palabras	6.7	19.6	10.7	17.9	-0.56	0.44
Conceptos del Texto Impreso	10.4	20.5	12.2	18.5	-0.41	0.54

higher reading groups in the fall to 95% in such groups by year-end.

- Finally, less than 1% (N = 1) of all discontinued students (N = 169) were referred and placed in special education following the intervention.

These are additional indications of the efficacy of the Descubriendo la Lectura intervention, as discontinued students (a) have accelerated their literacy learning and have achieved an average Total Score at year-end; (b) have been advanced to the average, above average, or well above average reading groups; and (c) are not referred for special education services in large numbers.

The results reported here for the Reading Recovery and Descubriendo la Lectura interventions, as well as prior results (e.g., Brymer-Bashore, 2019), indicate that Reading Recovery and Descubriendo la Lectura continue to be amongst a very small number of educational interventions with strong impacts on student learning in the United States. Now in its 35th year of implementation in 2018–2019, students receiving these interventions continue to generate strong outcomes.

Strong effects such as these would not be possible without the continued commitment of our Reading Recovery and Descubriendo la Lectura trainers, teacher leaders, and teachers, who consistently seek to improve their teaching craft. The efforts of these educators continue to result in outstanding literacy success for participating students.

About the Author

Jeff Brymer-Bashore is the director and co-principal investigator at the International Data Evaluation Center where he has worked for more than 18 years. With a degree in mathematics from The Ohio State University, he specializes in designing and managing large-scale data collections systems. When not working with data, Jeff is a DJ and children's entertainer.

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