

Few Interventions Can Match Reading Recovery Research Record

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Educators are now challenged to implement programs and practices based on research evidence. Not only is Reading Recovery a research-based intervention, it is an intensely researched intervention. Numerous studies have documented the effectiveness of Reading Recovery. Many studies have explored issues of Reading Recovery teaching, learning, and implementation. (See Schmitt, Askew, Fountas, Lyons, & Pinnell, 2005, for a comprehensive review of published research about Reading Recovery.) And the research base continues to grow as evidenced by the studies highlighted in this article.

For the purpose of this article, we will define research as an activity that involves the systematic collection and analysis of data that has undergone peer review. Peer review is the process of submitting one's work to the scrutiny of peers—other researchers. Only when it passes this scrutiny is the research presented at a research conference or published in a research journal.

Described below are recent research papers about Reading Recovery. Although themes of the individual papers overlap, we categorize the 10 studies in this way:

- 2 studies of the effectiveness of the intervention
- 3 studies of student progress after Reading Recovery
- 2 studies exploring the use of the Observation Survey for program evaluation

- 1 study of Reading Recovery's impact on the literacy achievement gap for low-income and minority groups
- 2 studies about student learning

What do studies reveal about the effectiveness of the Reading Recovery intervention?

Although 8 of the 10 articles address the effectiveness of the Reading Recovery intervention in one form or another, two studies specifically address the change in student performance during the intervention.

Lose, M. K., Smith, J., Schwartz, R., & Smith, J. (2005, April). *Growth curve analysis of first round Reading Recovery students across first grade*. Paper presented at the annual meeting of the American Educational Research Association in Montreal, Quebec, Canada.

This study examined the effects of the Reading Recovery intervention by looking at individual students' rates of progress during the intervention and after exit. Four separate Hierarchical Linear Modeling growth models were used to test hypotheses. Results included the following:

- Students served in Reading Recovery achieved levels similar to a random sample of their peers who did not need the intervention.
- After adjusting for initial background differences, Reading Recovery students who were

initially the lowest-performing readers in their class and who met the rigorous criteria for discontinuation of the intervention outperformed the random sample during the first half of first grade by more than one standard deviation.

- When compared to their peers with similar backgrounds, the Reading Recovery students had an achievement that was one-half a standard deviation higher. When adjustments were made for background characteristics known to contribute to risk for reading failure, students who successfully completed Reading Recovery were ahead of their peers, and Reading Recovery students who needed continued support achieved at levels equal to their peers.
- Reading Recovery students made increased reading growth over the period of their intervention.
- Even after adjusting for background differences, students who successfully exited the program showed 50% higher gains in reading than did students from the random sample, although students who required continued intervention gained at the same rate as those in the random sample.
- After the end of the intervention, students who had successfully discontinued their series of lessons did not continue their literacy performance at the same rate as a random sample of students who were never at risk.

Schwartz, R. M. (2005). Literacy learning of at-risk first-grade students in the Reading Recovery early intervention. *Journal of Educational Psychology*, 97, 257–267.

This important study was published in the top-tier *Journal of Educational Psychology*. It investigated the effectiveness and efficiency of the Reading Recovery early intervention. At-risk first-grade students were randomly assigned to receive the intervention during the first or second half of the school year. High-average and low-average students from the same classrooms provided additional comparisons. Thirty-seven teachers from across the United States used a Web-based system to register participants (n=148), received random assignment of the at-risk students from this system, and submitted complete data sets. Performance levels were measured at three points across the year on Clay's (1993) Observation Survey tasks, two standardized reading measures, and two phonemic awareness measures.

The intervention group showed significantly higher performance compared with the random control group and no differences compared with average groups. Further analyses explored the efficiency of Reading Recovery to identify children for early intervention service and subsequent long-term literacy support.

How do former Reading Recovery students perform on literacy tasks following the intervention?

Richards, P. (2004). State assessments: Reading Recovery children beat the odds. *The Journal of Reading Recovery*, 3(2), 59–63. This longitudinal study of Reading Recovery in a New York teacher

training site with 19 school districts found promising results as measured by the New York fourth-grade English Language Arts (ELA) assessment. The mean score for students who successfully discontinued their series of lessons was 646, which is within the range of Level 3 scores (i.e. meeting the state standard) and only 14 points lower than the state mean for all students. These children were all initially low readers in first grade. The small group of children who did not discontinue achieved a mean level of 622, which corresponds to mid-Level 2, indicating a partial achievement of the tested English language arts standards. Evidence indicates that if students have the opportunity to complete this short-term intervention in first grade, they may defy predictions of failure by beating the odds on the tests.

Ruhe, V., & Moore, P. (2005). The impact of Reading Recovery on later achievement in reading and writing. *ERS Spectrum*, 23, 20–30.

This longitudinal study looked at outcomes on the 2002 Grade 4 Maine Educational Assessment (MEA) for students served by Reading Recovery in 1998. The investigators obtained data for 534 students who had successfully discontinued their series of lessons. Their median score on the MEA was 534, compared to 540 for the state average. For all Maine students, 8% did not meet state standards on the reading assessment, 43% partially met the standards, 48% met the standards, and 1% exceeded the standards. For Reading Recovery students who had successfully discontinued their series of lessons, the proportions were 11%, 63%, 26%, and 0%, respectively. The interquartile range for the Reading

Recovery students overlapped nearly completely with that of all Maine students, meaning that these students were able to maintain their gains through fourth grade.

Schmitt, M. C., & Gregory, A. E. (2005). The impact of an early literacy intervention: Where are the children now? *Literacy Teaching and Learning: An International Journal of Early Reading and Writing*, 10, 1–20.

This study explored the literacy achievement of Indiana Reading Recovery students whose series of lessons had been successfully discontinued during their first-grade year at points 1, 2, and 3 years beyond the intervention. Participants included randomly selected children who had either successfully completed Reading Recovery or who had not participated in the intervention (i.e., cohort sample) from the three grade levels in 253 Indiana schools. The two assessment instruments used to gauge literacy performance included the running record of oral text reading (Clay, 1993) and the comprehension and vocabulary subtests of the Gates-MacGinitie Reading Tests as well as the score for the total test. Results on the third-grade state achievement test were collected to establish their achievement distribution 2 years beyond the intervention.

- Results indicate a considerable majority of the former successful Reading Recovery children were reading text at or above their grade level 1, 2, and 3 years beyond the intervention.
- Reading Recovery children were performing roughly as well as or better than their cohort sample peers on the task of oral text reading.

- Analysis of the Gates-MacGinitie Reading Test data indicated the vast majority of the previously successful Reading Recovery children performed within the calculated average bands of the cohort sample groups at each grade level, indicating the formerly struggling learners were continuing to progress with their peers in literacy achievement.
- The former Reading Recovery fourth graders achieved a normal curve distribution with a mean at the 45th percentile on the Indiana State Test of Education Progress (ISTEP), a considerably different pattern from their first-grade 15–20% achievement range.

Can the Observation Survey be used for program evaluation?

D'Agostino, J. V., & Murphy, J. A. (2004). A meta-analysis of Reading Recovery in United States schools. *Educational Evaluation and Policy Analysis*, 26(1), 23–38.

An important recent study was conducted by researchers with no affiliation to Reading Recovery, D'Agostino and Murphy. It is a meta-analysis—a study of studies. Meta-analysis researchers look at published studies and analyze data from these studies. Although meta-analyses are often fraught with methodological problems, D'Agostino is a well-respected researcher who has studied, among other things, the effectiveness of Title I programs (Borman & D'Agostino, 2006).

The study on Reading Recovery was published in the premier U.S. educational evaluation journal, *Educational Evaluation and Policy Analysis*. The authors found “...posi-

tive program effects for both discontinued and not discontinued students on outcomes tailored to the program and standardized achievement measures. Reading Recovery effects were most pronounced, however, for discontinued students on measures designed for the program” (p. 23). They also said that past criticisms of the methods used to demonstrate the effectiveness of Reading Recovery are not warranted. This is a very positive study for Reading Recovery.

Gómez-Bellengé, F. X., Rodgers, E. M., Wang, C., & Schultz, M. M. (2005, April). *Examination of the validity of the Observation Survey with a comparison to ITBS*. Paper presented at the annual meeting of the American Educational Research Association in Montreal, Quebec, Canada.

An Observation Survey of Early Literacy Achievement, developed by Marie M. Clay (1993, 2002), was correlated to the Iowa Test of Basic Skills (ITBS), to determine whether the two sets of measures identify the same group of low-performing readers and whether student progress is comparable across the two sets of measures. The findings follow:

- Both sets of instruments yield similar results in identifying low readers.
- The items between the two instruments are highly correlated; most correlations are both statistically significant and meaningful.

This study validates the use of the Observation Survey for identifying low readers and assessing their progress.

Can Reading Recovery close the achievement gap for low-income and minority students?

Rodgers, E. M., Gómez-Bellengé, F. X., Wang, C., & Schultz, M. M. (2005, April). *Predicting the literacy achievement of struggling readers: Does intervening early make a difference?* Paper presented at the annual meeting of the American Educational Research Association in Montreal, Quebec, Canada.

The purpose of this study was to examine whether an early literacy intervention, in this case Reading Recovery, is a significant predictor of a student's reading achievement in the spring. The most significant finding was that having an early literacy intervention is more significantly related to students' performance in reading in the spring than students' economic status. Race is not a statistically significant predictor of first graders' success in reading when accounting for participation in Reading Recovery and the student's family income. This finding underscores the potency of teaching and of intervening early to make a difference in students' reading progress.

What can we learn about teaching and learning from Reading Recovery lessons?

Fitzgerald, J., & Ramsbotham, A. (2004). First-graders' cognitive and strategic development in Reading Recovery reading and writing. *Reading Research and Instruction*, 44(1), 1–31.

The main purposes of the study were to investigate (a) the development of two at-risk students' selected cognitions and strategies as they initially appeared in Reading Recovery reading and writing; and

(b) whether such development was simultaneously evident in Reading Recovery reading and writing. The authors theorized that “a common, or core, set of cognitions and strategies exists for both reading and writing activities ... That is, a cognition or strategy could be viewed as unitary and not specific to reading or writing” (p. 5). They base these concepts on a variety of authors. The study employed a case study methodology. The main conclusions follow:

- In Reading Recovery reading and writing, the two boys demonstrated initial acquisition of cognitions and strategies in identical order, and the order could be characterized in three broad successions—Awakening to Print, Balancing Strategies with Concentrated Attention to Individual Visual Cues, and Homing in on the “Look” of the Whole Word. However, the boys differed in rate of acquisition of the cognitions and strategies.
- There was a strong tendency toward initial emergence of cognitions and strategies in Reading Recovery writing before Reading Recovery reading.

Forbes, S., Poparad, M. A., & McBride, M. (2004). To err is human: To self-correct is to learn. *The Reading Teacher*, 57, 566–572. The purpose of this article was to explain why self-correction is essential for reading progress to occur. Self-correction of some miscues is an early behavior that indicates young children are beginning to build a dynamic process for reading print. Self-correction in reading may be similar to self-repair in speech, which is widely recognized as an important sign of progress in language develop-

ment. Self-monitoring and self-correction are strategic activities that may lead to metacognition. If students are making progress in reading, their *observable* self-correcting behaviors will eventually disappear.

Teachers can easily record self-correcting behaviors of beginning readers and struggling readers. The article explains how teachers can observe and actively teach for self-correcting.

Discussion

The 10 studies provide evidence of multiple influences of Reading Recovery including

- effectiveness of the intervention,
- continued progress after the intervention,
- support for using the Observation Survey for program evaluation,
- contribution to closing the literacy achievement gap,
- impact on children’s cognitions and strategies, and
- importance of self-correction behavior

This is a considerable body of evidence for a short time period and does not include the evaluation research evidence in national, state, and local evaluation reports. Reports from the National Data Evaluation Center (NDEC) are available at www.ndec.us. It is important to note that the evidence base for Reading Recovery includes both purposeful scientific research and ongoing program evaluation, which involves every child taught every year.

Few interventions can match this record.

About the Author



Francisco Gómez holds degrees in anthropology from the University of Arizona and Case Western Reserve University, with Ph.D. coursework in education at Cleveland State University. His background includes experience in both research and education. Since becoming director of the National Data Evaluation Center (NDEC) in 1999, he has revamped the way in which the center processes data, introducing modern management and information technologies. He is involved in a variety of research projects with university faculty and the NDEC staff.

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