

What Works? Reading Recovery

An Analysis of the What Works Clearinghouse Intervention Report issued March 19, 2007

Robert M. Schwartz, Oakland University

Billie Askew, Texas Woman's University

Francisco Gómez-Bellengé, National Data Evaluation Center, The Ohio State University

The What Works Clearinghouse (WWC), a branch of the United States Department of Education (USDE) and the Institute of Education Sciences (IES), has released its independent review of the experimental research on Reading Recovery. The review clearly establishes that Reading Recovery is an effective intervention based on scientific research.

The What Works Clearinghouse Report

The report found that Reading Recovery has *positive effects* on students' alphabetic skills and general reading achievement. A finding of positive effects is the WWC's strongest evidence rating. (See What the WWC Ratings Mean sidebar.) They found *potentially positive effects*, their next highest level of evidence, on fluency and comprehension outcomes. These conclusions are based on five research studies, four that meet the WWC's highest evidence standards and one study that meets these standards with reservations.

The report includes an improvement index to reflect the strength of the Reading Recovery intervention on the outcome domains related to beginning reading. The improvement index "represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition" (p. 6). Scores on this index can range from -50 to +50.

The average improvement index scores for Reading Recovery children show large and impressive effect sizes:

Outcome Domain	Change in Percentile Rank for Reading Recovery Children
<i>Alphabetic</i> (<i>phonemic awareness, print awareness, letter knowledge, and phonics</i>)	+34 percentile points
<i>Fluency</i>	+46 percentile points
<i>Reading comprehension</i> (<i>vocabulary and reading comprehension</i>)	+14 percentile points
<i>General reading achievement</i>	+32 percentile points

Taken together these measures demonstrate that Reading Recovery is accomplishing its primary goals.

First, Reading Recovery provides effective early intervening services that enable most at-risk first-grade children to accelerate their literacy learning and meet grade-level standards. This means they can continue to achieve and benefit from good classroom literacy programs. If Reading Recovery students initially score around the 15th percentile level on literacy measures, +32 percentile increase places them well within the average range of their peers (47th percentile).

Second, Reading Recovery serves as a response to intervention (RTI) assessment to identify a small group

of children that will need additional services for their literacy learning. By limiting long-term support, schools save resources, even factoring in the cost of a one-to-one short-term intervention. The savings can then be targeted to the small percentage of the first-grade cohort who will need longer-term support.

Reading Recovery Meets Evidence Standards for Establishing Causal Validity

The mission of the WWC is “to provide educators, policy makers, researchers and the public with a central and trusted source of scientific evidence of what works in education.” (<http://ies.ed.gov/ncee/wwc/>) They base their analysis on research studies that meet their standards for demonstrating causal validity. In many cases

these standards require randomized clinical trials conducted within school settings. These types of studies are rare in education.

Five studies met WWC’s evidence standards for inclusion in its review of causal validity research, and this is more than sufficient to establish causal validity. The WWC requires only two independent, well-designed clinical trials to establish a positive causal finding. The evidence that Reading Recovery is an intervention based on scientific research is now documented and acknowledged by the USDE and IES.

WWC Findings are Supported by Evaluation Data

Causal validity research is critical in establishing that an intervention is effective, but it doesn’t guarantee that a

What the WWC Ratings Mean

Positive Effects

Strong evidence of a positive effect with no overriding contrary evidence

- Two or more studies showing statistically significant positive effects, at least one of which met WWC evidence standards for a strong design.
- No studies showing statistically significant or substantively important negative effects.

Potentially Positive Effects

Evidence of a positive effect with no overriding contrary evidence

- At least one study showing a statistically significant or substantively important positive effect.
- No studies showing a statistically significant or substantively important negative effect and fewer or the same number of studies showing indeterminate effects than showing statistically significant or substantively important positive effects.

Mixed Effects

Evidence of inconsistent effects as demonstrated through either of the following:

- At least one study showing a statistically significant or substantively important positive effect; AND at least one study showing a statistically significant or substantively important negative effect, but no more such studies than the number showing a statistically significant or substantively important positive effect.

- OR, at least one study showing a statistically significant or substantively important effect AND more studies showing an indeterminate effect than showing a statistically significant or substantively important effect.

No Discernible Effects

No affirmative evidence of effects

- None of the studies shows a statistically significant or substantively important effect, either positive or negative.

Potentially Negative Effects

Evidence of a negative effect with no overriding contrary evidence

- At least one study showing a statistically significant or substantively important negative effect.

Negative Effects

Strong evidence of a negative effect with no overriding contrary evidence

- Two or more studies showing statistically significant negative effects, at least one of which is based on a strong design.
- No studies showing statistically significant or substantively important positive effects.

Source: What Works Clearinghouse website
http://ies.ed.gov/ncee/wwc/pdf/rating_scheme.pdf

particular intervention will work in a particular setting. Russ Whitehurst, the director of the IES, suggests,

“A school that adopted the reading practice that had been demonstrated to be efficacious in a scientific evaluation should collect data on how children are performing in the classrooms using that practice to identify whether the program is working as deployed and to address potential problems, such as weak implementation. Together, scientific research and performance data comprise empirical evidence.” (2004)

Performance (evaluation) data is a central component of Reading Recovery implementations around the world. Data are collected on every child who participates in the intervention—more than 100,000 first-grade students annually in the United States. Evaluation reports on the progress of Reading Recovery children go to every school, district, and teacher training site. Information about the local implementation is also collected to inform local decision makers.

On a national level, outcome data demonstrate that the significant and large effects of the Reading Recovery intervention shown in clinical trials are replicated in the large-scale implementation in more than 2,400 school systems and 7,500 schools with nearly 13,000 Reading Recovery teachers. Evaluation data show the same strong gains reported in experimental studies that used randomized comparison groups to establish causal validity.

Other Research Support for Reading Recovery

In addition to the WWC’s report on five Reading Recovery studies demonstrating causal validity, more than 100 research and evaluation studies have examined various aspects of Reading Recovery. D’Agostino and Murphy (2004) conducted a meta-analysis of 36 studies and compared the results of the highest-quality studies with other research reports; they found convergent evidence on the positive effects of Reading Recovery.

Studies have explored issues such as the subsequent progress of Reading Recovery students; closing achievement gaps related to race/ethnicity, socioeconomic status, and English language learners; and intervention scale-up. These studies provide a preponderance of

evidence of Reading Recovery’s effectiveness and influence (Schmitt et al., 2005) and make Reading Recovery the most research-based literacy intervention for struggling first graders.

Scaling-Up and Disseminating the Intervention

Scaling-up and disseminating an intervention are critical issues not usually addressed in experiment research. Yet policymakers are as concerned with these elements as with scientific research. Reading Recovery has a dissemination model that works. The model is based on professional development and involves more than 13,000 literacy professionals, 448 Reading Recovery training sites, and 22 universities. Specially trained university-based and site-based leaders provide initial training, ongoing professional development, implementation support, and early intervention services for children. The research and development involved in establishing, expanding, and maintaining this professional community to serve the needs of at-risk first graders is built into the dissemination plan.

The newly released WWC report adds an authoritative, independent assessment of the experimental research evidence about Reading Recovery. The report is available online at http://ies.ed.gov/ncee/wwc/reports/beginning_reading/reading_recovery/. Abstracts of some Reading Recovery studies included in the WWC report are available in the research section of the RRCNA website at www.readingrecovery.org.

References

- 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.
- Schmitt, M. C., Askew, B. J., Fountas, I. C., Lyons, C. A., & Pinnell, G. S. (2005). *Changing futures: The influence of Reading Recovery in the United States*. Worthington, OH: Reading Recovery Council of North America.
- Whitehurst, G. J. R. (2004). *IPR distinguished public policy lecture series 2003-04—Making education evidence-based: Premises, principles, pragmatics, and politics*. Chicago: Institute for Policy Research, Northwestern University.



Reading Recovery® Council
of North America