A Review of What Research *Really* Says About Reading Recovery

RRCNA

Response to Farrall's article on Wrightslaw Web site

Reading Recovery and special educators share at least two common goals: Providing high quality education for children with learning difficulties, and giving accurate information to families so they can be effective advocates for their children. In most schools with Reading Recovery, classroom teachers, special education teachers, and Reading Recovery teachers work side by side to reduce unnecessary referrals to special education and to support the school's comprehensive literacy program. Both Reading Recovery and special educators agree that families need accurate, well-researched information.

Unfortunately, the political attack by Melissa Farrall in Wrightslaw Special Ed Advocate ("Reading Recovery: What do school districts get for their money with Reading Recovery? A review of research," February 7, 2006) presents inaccurate information about Reading Recovery. Farrall ignores scientifically based evidence and misleads families and other readers. Farrall also ignores benefits of Reading Recovery, including its widely acclaimed professional development model that creates literacy experts for schools. This paper is written to

- correct errors in the Farrall article,
- provide a broader view for families of special needs children, and
- accurately answer the question "What do school districts *really* get for their money with Reading Recovery?"

Most of Farrall's attacks are directed to seven overlapping aspects of Reading Recovery. For each area, this review lists Farrall's claims and refutes those claims by providing facts and evidence that correct the errors in her article. Endnotes are used to provide detail for some responses. The review ends with an accurate description of what school districts get for their money with Reading Recovery.

Issue Paper

Effectiveness of Reading Recovery

Scientific research validates the effectiveness of Reading Recovery.

Farrall's Claim:
Farrall charges that "Reading Recovery lacks independent research that validates the program's success."

Reading Recovery Response:
Reading Recovery's effectiveness has a strong scientific research base supported by independent researchers as well as those associated with the intervention.

Six Reading Recovery studies meet the criteria for scientifically based reading research as defined by the United States Department of Education (USDE). All six studies (Center, Wheldall, Freeman, Outhred, & McNaught, 1995; Iversen & Tunmer, 1993; Pinnell, 1989; Pinnell, Lyons, DeFord, Bryk, & Seltzer, 1994; Quay, Steele, Johnson, & Hortman, 2001; Schwartz, 2005) were published in peer-reviewed journals and demonstrate strong effects in carefully controlled experimental studies. Two of these studies were conducted by independent researchers; two included both independent researchers and scholars associated with Reading Recovery. The four studies that included Reading Recovery researchers had rigorous external review of design and data analysis. No other early intervention has this quantity or quality of research to demonstrate its effectiveness.

http://www.readingrecovery.org/sections/research/effectiveness.asp

Farrall's Claim::
Farrall quotes "an international group of experts and researchers in reading development and intervention" who claim "there is little evidence that Reading Recovery is effective."

Reading Recovery Response:
More than 200 scholars and researchers support Reading Recovery.

Farrall's assertion comes from a 2002 Internet letter signed by 31 researchers, most of whom have only tangential knowledge of early literacy acquisition. This letter was timed to influence state and local grant applications that were being developed after passage of the No Child Left Behind legislation. Like Farrall's article, the letter built a distorted case based on flawed research and selective reporting of Reading Recovery studies.

Farrall does not mention that more than 200 scholars and researchers, most of whom are closely associated with literacy education, signed a letter of support for Reading Recovery and reminded signers of the Internet letter that education dollars belong to citizens, not a small group of researchers who have a particular point of view. Both letters are part of a full report available online, which includes a point-by-point rebuttal of the claims in the Internet letter and evidence to refute those claims.

http://www.readingrecovery.org/sections/research/Evidence.asp

Farrall's Claim:
Farrall inaccurately reports research findings by Elbaum, Vaughn, Hughes, & Moody (2000). "According to one study, poor readers made no gains when provided with one-to-one Reading Recovery instruction."

Reading Recovery Response:
The Elbaum et al. study found statistically significant gains for Reading Recovery compared to other interventions.

Contrary to Farrall's erroneous statement, the meta-analysis by Elbaum et al. (2000) found that the mean weighted effect size for Reading Recovery (d=.0.66) was significantly higher than for the other matched interventions.[1] After reporting these positive results, Elbaum et al. inexplicably included negative comments about Reading Recovery in their summary discussion, but the data contradict their conclusions.

Farrall ignores a later independent meta-analysis of 36 studies conducted by D'Agostino and Murphy (2004) to study overall program effects of Reading Recovery. The study reported: "To date, the bulk of available evidence indicated that RR has had positive effects on participating students across outcomes designed for the program and external to it, and that results of more rigorously designed studies seemed to converge with this conclusion" (pp. 35–36). The D'Agostino & Murphy meta-analysis showed strikingly positive effects of Reading Recovery on reading achievement (Allington, 2005).

More than 25 studies of Reading Recovery effectiveness are published in peer-reviewed journals. These studies are summarized in Chapter 10 in *Changing Futures: The Influence of Reading Recovery in the United States* (Schmitt, Askew, Fountas, Lyons, & Pinnell, 2005). (Also see http://www.readingrecovery.org/sections/research/index.asp.)

The National Data Evaluation Center (NDEC) has reported gains for every child served in the United States for more than 20 years. National reports show remarkable gains for Reading Recovery children.

www.ndec.us

Farrall's Claim:
Farrall writes, "The goal of Reading Recovery is not to bring students up to the national average in reading. The goal is to bring the poorest readers to the average of their class. This practice is likely to discriminate against poor, minority students who have the misfortune to attend poor performing inner city schools."

Reading Recovery Response:
Reading Recovery children are compared to national norms. There are only small differences among demographic groups after successful completion of Reading Recovery lessons.

Although urban, poverty status, and minority students may enter Reading Recovery with both demographic and academic risk factors, once they successfully complete the intervention there are only small differences among demographic groups—whether initially at risk or not. This is in sharp contrast to the general population that includes large differences in academic achievement among demographic groups.

The largest difference between two demographic groups served by Reading Recovery in the 2003–2004 national report was one text level between White girls and Hispanic boys and girls. In contrast, for the general population of first-grade students, the largest difference was six text levels between White girls and Hispanic girls (Gómez-Bellengé, Rodgers, & Schulz, 2005). There is also research evidence that Reading Recovery closes the achievement gap (Rodgers, Wang, & Gómez-Bellengé, 2004; Rodgers, Gómez-Bellengé, Wang, & Schulz, 2005).

Because the child who successfully completes Reading Recovery lessons must have learned to read at grade-level standards, a child cannot exit below a certain reading level. This is reflected in national evaluation data that compares Reading Recovery students to a national random sample of students in the U.S.

An analysis prepared by the NDEC for this report shows that students who successfully discontinue their series of lessons average a year-end text level of 18.6 in urban schools and 19.1 in suburban schools; this is not a pedagogically significant difference.

Evidence shows that Reading Recovery students continue to progress with their class after the intervention.

Farrall's Claim:
Farrall uses two early reviews (Hiebert, 1994; Shanahan & Barr, 1995) to claim that "Students who completed the Reading Recovery program did not maintain their gains as they continued in school."

Reading Recovery Response:
At least 10 published studies have found that Reading Recovery students with complete interventions continued to meet grade-level expectations.

Writing more than 10 years ago, neither Hiebert nor Shanahan and Barr had access to more recent studies on the continued progress of Reading Recovery students in later elementary grades. In fact, Shanahan and Barr called for more research to see if Reading Recovery children continue to progress at an average rate, and suggested that findings would have implications for the timing of special support and allocation of resources.

In academic studies of sustained effects of interventions, select students are typically followed up 1 to 3 months after the end of the intervention. Reading Recovery's annual evaluation follows up on all students served in the first half of the year, providing 4-month follow-up evidence on sustained gains every year. These students continue to make impressive progress after Reading Recovery lessons are completed.

There is substantial evidence that the majority of Reading Recovery students who successfully complete lessons continue to make expected progress in later elementary grades. Yet Farrall has failed to include this evidence in her review. At least 10 published studies, including comparison studies from Texas, Indiana, Maine, Kansas, and California, have found that most Reading Recovery students who successfully completed lessons continued to meet grade-level expectations and that literacy performance after Reading Recovery seems to become stronger over time.[2] A summary of these studies is available online.

http://www.readingrecovery.org/sections/research/progress.asp

Reading Recovery can have an indirect effect on overall school reading performance.

Farrall's Claim:
"There is widespread agreement between Reading Recovery advocates and critics that Reading Recovery does not raise overall school reading performance (Hiebert, 1994; Pinnell & Lyons, 1995)." [NOTE: The Pinnell & Lyons citation may refer to a response issued by the Reading Recovery Council of North America; the manuscript was published in 1996 (Pinnell, Lyons, & Jones.)]

Reading Recovery Response:
Reading Recovery is designed to help students who are struggling the most, not the entire age cohort.

The goal of Reading Recovery is to bring the hardest-to-teach children to a level of literacy achievement where they can be full participants in classroom literacy programs. It is not designed to serve or directly affect the entire age cohort.[3] In 15% of Reading Recovery schools, less than one-fourth of the lowest achievers eligible for Reading Recovery are served. Reading Recovery is fully implemented in only 30% of schools. Low levels of coverage reduce the impact of Reading Recovery on overall student performance.

To improve overall reading achievement, two things are necessary: (a) a strong staff development program that includes reorganization of time and management; and (b) a strong intervention that serves the lowest children. Averages may be raised without necessarily helping the lowest group; the lowest group may be helped to average, or close to average, without substantially raising school-wide test scores if that group is small.

One-to-One vs. Small-Group Instruction

Farrall's Claim:
Farrall writes, "Studies that compared Reading Recovery in a one-on-one setting and Reading Recovery delivered in a small group setting did not show any advantage to one-to-one instruction (Evans, 1996; Iversen, 1997)."

Reading Recovery Response:
The studies cited did not replicate actual Reading Recovery lessons, so there was no basis for comparison.

Studies cited by Farrall do not support her claim. Both the Evans and Iversen references are doctoral dissertations, though the Iversen study was later published (Iversen, Tunmer & Chapman, 2005). Evans studied a very small sample—only four children who received lessons from a teacher who was in her first months of Reading Recovery training. The Iversen study tested an intervention loosely adapted from Reading Recovery, but was not Reading Recovery.

Only one large-scale experimental study with random assignment has tested one-to-one Reading Recovery lessons vs. a small-group intervention. That study revealed that Reading Recovery was the most powerful of the tested interventions with an essential factor being individual instruction (Pinnell et al., 1994). Studies of Reading Recovery and small-group instruction in Arkansas (Dorn & Allen, 1995; Harrison, 2002) found that the lowest achievers in Grade 1 needed individual teaching to make accelerated progress.

Cost Effectiveness

Farrall's Claim:
Referring to an article by Hiebert (1994), Farrall writes, "According to one study, Reading Recovery was not cost effective because of the high costs of teacher training and the requirements for one-to-one instruction."

Reading Recovery Response:
At least two studies have demonstrated that Reading Recovery can save money by reducing referrals and special education placements.

We are not aware of any studies comparing Reading Recovery's cost to other equivalent interventions. Cost studies are complex and costly.[4] At least two studies have demonstrated that districts save money by reducing referrals and placements into special education (see the following section.)

One-to-one teaching may sound expensive, but Reading Recovery is economical for at least three reasons (Clay, 2005a):

1. Children move through their series of lessons quickly (12–20 weeks). A Reading Recovery teacher working half-time could work with 10 or more Reading Recovery children during the school year. When considering their roles during the remainder of the school day, Reading Recovery teachers work with an

average of 35 children during the year. Their expertise is also available to many children in the school setting.

2. After the intervention, most children move forward with their average or better classmates; few need ongoing long-term help. Cost savings include grade-level retention and long-term placements in special education, Title I, or compensatory education programs.

3. Successful Reading Recovery children become both readers and writers, a double benefit for the children.

All teachers working with struggling readers will need high-quality professional development regardless of the selected interventions. Dispelling the myth of high training costs, Cunningham and Allington (1994) offer this perspective:

> *"When you compare the success rate of Reading Recovery with other programs that keep children for years and never get them reading on grade level, Reading Recovery is a bargain."* (p. 255)

For a more comprehensive discussion of the economy of Reading Recovery, see Chapter 11 in *Changing Futures: The Influence of Reading Recovery in the United States* (Schmitt et al., 2005).

Reduction of Special Education and Title I Services

Farrall's Claim:
Farrall asserts, "Reading Recovery does not reduce the need for special education and Title I services."

Reading Recovery Response:
Several studies have documented that Reading Recovery has reduced referrals by a statistically significant rate.

Farrall selectively reported negative studies without acknowledging others with compellingly positive results. Several studies have documented the reduced need for special education, Title I services, and grade-level retention in Reading Recovery schools.

A study of 11 New York City districts found that children served by Reading Recovery were referred at a statistically significant lower rate in later grades than low achievers who did not have Reading Recovery lessons (O'Connor & Simic, 2002).[5]

A Massachusetts district netted savings of $1,262,874 for costs associated with retention, special education, and Title 1 placement (Assad & Condon, 1996).[6]

An Ohio district reduced costs of retentions (saving $163,020) and dramatically reduced the number of children classified as learning disabled, realizing a considerable cost savings (Lyons & Beaver, 1995).[7]

Reading Recovery's data collection and reporting processes allow school administrators to review their own outcomes related to special education referrals and placements, retention in Grade 1, and placement in Title I settings in Grade 1. They can compare their results with national averages and explore local implementation factors that may be affecting those outcomes.

Reading Recovery has worked collaboratively with special education as a pre-referral intervention, reducing the number of children inappropriately identified for learning disabilities placements. The 2004 Individuals with Disabilities Education Improvement Act (IDEIA) promotes response to intervention (RTI) as a precursor to identification of learning disabilities in young children.

Assessment in Reading Recovery

Farrall's numerous comments about the assessments used in Reading Recovery show a lack of understanding of measurement in general, and a disregard for published information about these specific assessments.

Farrall's Claim:
Farrall states, "Teachers use an observation survey, a subjective, non-standardized assessment that uses the same books used during remedial sessions to provide information/data for the next tutoring session."

Reading Recovery Response: Reading Recovery's Observation Survey is a standardized assessment with national norms.

Farrall's statement confuses two observational assessments used in Reading Recovery: *An Observation Survey of Early Literacy Achievement* (Clay, 2002) and the daily running record of text reading. In the above statement, she must be referring to the running record of text reading, a daily assessment in every Reading Recovery lesson that allows teachers to observe how the child is processing text and to check the child's confusions. In this daily lesson activity, the teacher uses a book introduced and read for the first time the day before.

Running records of text reading are also part of *An Observation Survey of Early Literacy Achievement*; however, each testing book in the Observation Survey is a new book that the child has not previously seen. Testing is administered by someone who has not been teaching the child. Because the Observation Survey is a standardized assessment with national norms (Gómez-Bellengé & Thompson, 2005), books used for running records are standard texts with standard administration procedures. An analysis of text reading materials showed high reliability of the text reading scale.

Farrall's Claim:
Farrall states, "The developer of Reading Recovery and the Observation Survey focused on 'systematic observation' of reading behaviors, not on standardized testing that allows researchers to compare and contrast data from different studies. As a result, it is impossible to judge Reading Recovery's efficacy in terms of national standards."

Reading Recovery Response: The Observation Survey has national norms and highly correlates with the Iowa Test of Basic Skills.

An Observation Survey of Early Literacy Achievement is a teacher-administered standardized assessment.[8] It has recent U.S. norms that allow for the evaluation of Reading Recovery according to national standards. The Observation Survey highly correlates with a nationally normed test, the Iowa Test of Basic Skills (Gómez-Bellengé, Rodgers, Wang, & Schulz, 2005). Extensive evidence supports the validity and reliability of the survey (Clay, 2002; Denton, Ciancio, & Fletcher, 2006). All six of the previously-cited studies meeting the criteria for scientifically based research used widely accepted standardized tests.

Farrall's Claim:
Farrall charges that Reading Recovery does not measure progress objectively. "…researchers note that the main evaluation tool for Reading Recovery is the book-level assessment. Book-level measures use repetitive sentences and pictures to help the reader guess the correct answer. These stories are highly predictable and 'guessable.' Strategies that may work with artificial content are not useful when reading real or authentic text. (Grossen, Coulter, and Ruggles, 1997)."[9]

Reading Recovery Response: "Real" texts that increase in complexity and difficulty across lessons are used to measure progress in text reading.

In the lowest levels of the text reading assessment, the text is predictable because that is the nature of text at that beginning level. Building on strengths is a basic principle of Reading Recovery instruction. Children use their oral language strengths and illustrations to support early efforts to learn about printed text. But the text difficulty increases greatly over the 12 to 20 weeks of Reading Recovery lessons. In order for children to successfully complete lessons, students must read text appropriately complex for their grade level (e.g., long stretches of text; less support from pictures; more complex language and vocabulary).

Farrall's claim that the books represent *artificial content* is the opposite of reality. The text level measure, like all of the Observation Survey tasks, is ". . . a task that is like a real world task as a guarantee that the observations will relate to what the child is likely to do in the real world (for this establishes the validity of the observation)" (Clay, 2002, p. 12).

Farrall's Claim:
"Experts report that it is difficult to assess a student's progress with Reading Recovery levels. The intervals used (book level measures) are not equal. Progress (from one book to another) at the lower levels of the program is not equivalent to progress at the higher levels. (Center, Wheldall, & Freeman (1992)"

Reading Recovery Response:
The text-level measure with unequal intervals can be used for evaluation purposes.

The intervals between text levels are not equal. This does not mean the text-level measure cannot be used to evaluate program efficacy. Studies on the efficacy of the Reading Recovery intervention have found high correlations between results obtained by the tasks of the Observation Survey and other standardized assessments.[10]

Theoretical Base of Reading Recovery

Farrall's Claim:
Farrall states that "The scientific community also rejected the theoretical underpinnings as described by the founder, Marie Clay (1993)."

Reading Recovery Response:
Literacy scholars outside Reading Recovery have stated that the theory and assumptions of Reading Recovery are core to good literacy instruction.

The scientific community referenced by Farrall does not represent the views of literacy scholars and researchers. In 2000, Linda Gambrell, president of the National Reading Conference, a premier literacy research organization, conducted a survey of its membership. She asked for the names of individuals who had most influenced research and practice in the past 3 decades. Marie Clay was the only individual recognized as an influential researcher in all 3 decades.

A recent article in a high quality research journal was dedicated to the theoretical principles of Reading Recovery and the implications of those principles for classroom practice (Cox & Hopkins, 2006). They argue " . . . that the theory and assumptions of RR can be considered as core to good literacy instruction for all children. We engage in this explanation and argument from the perspective of literacy professionals who are outside the network of scholars and practitioners typically associated with RR" (p. 255).

Farrall's Claim:
Farrall further states that "Clay emphasizes a top-down approach in which children use their understanding of the world to construct meaning from text." In another section, Farrall describes lessons saying that, "Children are taught to rely on context and use other strategies (guessing, looking at pictures, and using the first letter of the word as a clue) to predict unknown words."

Reading Recovery Response:
Reading is a complex process and Reading Recovery takes into account all of the many parts of literacy processing, not just one simplistic factor.

Farrall is relying on the use of misleading and simplistic labels such as "top-down approach," "predicting," and "guessing." Marie Clay's work is based on a complex theory of literacy learning that cannot be reduced to single factors or simplistic explanations. The following quote from Clay (2001) briefly describes this complex theory:

> *In a complex model of interacting competencies in reading and writing the reader can potentially draw from all his or her current understanding, and all his or her language competencies, and visual information, and phonological information, and knowledge of printing conventions, in ways which extend both the searching and linking processes as well as the item knowledge repertoires. Learners pull together necessary information from print in simple ways at first . ., . but as opportunities to read and write accumulate over time the learner becomes able to quickly and momentarily construct a somewhat complex operating system which might solve the problem. There is no simplified way to engage in the complex activities, but teachers and the public are typically presented with patently untrue simplifications in new commercial instruction kits."* (p. 224)

Reading Recovery's "complex theory of literacy learning supports the view that there are many parts of literacy processing which can be difficult for children. Different children have different strengths and weaknesses, and there may be many causes of difficulty varying from child to child. . . The challenges for the teacher come in making teaching decisions which adapt to each child's idiosyncratic patterns of competencies" (Clay, 2001, pp. 300–301).

Farrall's Claim:
Farrall writes, "Reading Recovery does not attempt to improve phonological awareness and sound-symbol correspondence in weak readers."

Reading Recovery Response:
Reading Recovery includes explicit instruction in phonological awareness as part of the complex process of teaching reading.

Researchers who have studied Reading Recovery refute Farrall's statement concerning Reading Recovery's teaching of phonological awareness. Marilyn Adams (1990) wrote the "importance of phonological and linguistic awareness is explicitly recognized" (p. 421). Iversen and Tunmer (1993) acknowledged that the standard Reading Recovery program included explicit instruction in phonological awareness. Later research by Stahl, Stahl, and McKenna (1999) reported that all students in the Reading Recovery group made gains in tests of letter identification, phonemic awareness, and dictation.

Selecting Children and Accounting for Every Child

Farrall used inaccurate and misleading sources to argue that Reading Recovery has no clear guidelines for selecting students, excludes some children, and drops children from the intervention. Her claims show a total disregard for information that clearly dispels these charges.

Farrall's Claim:
Farrall states, "Reading Recovery data excludes 25% to 40% of the lowest performing students. Excluding these students violates the 'intent to treat' requirement that is the standard for evaluative research. The intent to treat requirement prohibits researchers from using data selectively to make claims."

Reading Recovery Response:
Reading Recovery reports all children served, regardless of the number of lessons. It is designed to reach the lowest-performing students.

Reading Recovery counts every child served, even if it is only for 1 day. Reading Recovery teachers submit data annually through Web data submission to The National Data Evaluation Center (NDEC) located at The Ohio State University. A full national evaluation report is published each year, accounting for each child served. The national reports include an Attrition Analysis section that specifically addresses 'intent to treat.' (See www.ndec.us and Gómez-Bellengé & Rodgers, 2006.) No other intervention tracks data for each child served. A cumulative review of the end-of-lesson outcome for the 1.6 million U.S. children served in the U.S. is available online.

http://www.readingrecovery.org/sections/reading/facts.asp

Among students who have a complete intervention, more than three-fourths reach grade-level standard and continue to learn with good classroom instruction.

Farrall's Claim:
Farrall asserts in several places that Reading Recovery drops children from the intervention.

"A high percentage of children are dropped from Reading Recovery before they complete the program."… "Data provided by Reading Recovery does not explain the high percentage of children who are dropped from the program. . . (Heibert & Shanahan & Barr)"… "Reading Recovery does not keep statistics on children who are dropped before they complete the program."

Reading Recovery Response:
Children are not dropped from Reading Recovery – Reading Recovery serves the lowest readers first.

Children are not dropped from the Reading Recovery intervention.[11] In fact, Reading Recovery serves the lowest readers first and accounts for all children served—even if for only one lesson—in all its reports. Farrall's assertion that Reading Recovery drops children is untrue; that allegation has been corrected in published responses by Reading Recovery scholars.[12]

Each child has the opportunity to complete the intervention as long as the school year permits. Very rarely are Reading Recovery lessons stopped and only for extremely unusual reasons—such as a child returns to a kindergarten placement or a child's Reading Recovery teacher is no longer available in the school. All such cases are documented in writing and included in reports.

Farrall's Claim:
Farrall asserts that Reading Recovery has unclear standards for how children are selected and that some groups of students are excluded.

"Data provided by Reading Recovery does not explain . . .the process of determining eligibility for the program" (Heibert & Shanahan & Barr)… "Reading Recovery does not serve children who are identified for special education services. Reading Recovery does not accept children who do not meet their entry-level requirements."

Reading Recovery Response:
Reading Recovery has clear standards for student selection, always accepting the lowest achievers first.

Standards and Guidelines of Reading Recovery in the United States (2004) clearly outline selection procedures and state, "In all decisions, the lowest-achieving children must be selected for service first."

http://www.readingrecovery.org/sections/implementation/standards.asp

Early in the school year each first-grade classroom teacher is asked to place students in rank order of reading achievement. The lowest third of the class is tested using *An Observation Survey of Early Literacy Achievement*. Based on results, Reading Recovery teachers begin lessons with the lowest-achieving first graders.

For most children, Reading Recovery is a pre-referral intervention or a response to intervention (RTI). Special education students may be served in Reading Recovery if they are not already receiving a literacy intervention and if they are the lowest achievers in a regular first-grade classroom.

10 Benefits School Districts Get for Their Money with Reading Recovery

School districts benefit in many ways from Reading Recovery. With a high-quality implementation of Reading Recovery, they get . . .

1. a scientifically research-based early intervention for first graders having extreme difficulty with early reading and writing. Evaluation data document that more than three-quarters of children with a complete intervention reach grade-level standards.
   http://www.readingrecovery.org/sections/reading/basic.asp

   http://www.readingrecovery.org/sections/research/effectiveness.asp

   www.ndec.us
2. a 20-week period of diagnostic teaching for students who make progress but do not reach the rigorous criteria for grade-level performance. After Reading Recovery lessons, the school knows much more about the students and can appropriately refer children for further evaluation and take positive actions for their future learning.
3. an effective intervention for children learning to read and write in Spanish (Descubriendo la Lectura)
4. a cost effective short-term intervention that reduces the need for special education and other long-term remedial services and decreases the incidence of grade-level retention
5. a demonstration that low-achieving children can learn, changing perceptions and expectations
6. an intervention that greatly narrows or closes the achievement gap in literacy learning among various socioeconomic, racial, and ethnic groups (Rodgers, Gómez-Bellengé, Wang, & Schulz, 2005; Rodgers, Wang, & Gómez-Bellengé, 2004).
   http://www.readingrecovery.org/sections/research/closingthelitgap.asp
7. an early intervention that has been found to reduce the achievement gap between native and non-native speakers (Ashdown & Simic, 2000)
   http://www.readingrecovery.org/sections/research/isearlyliteffective.asp
8. a widely acclaimed professional development program for teachers, strengthening literacy learning school-wide. (Cox & Hopkins, 2006; Herman & Stringfield, 1997; Pressley & Roehrig, 2005.) In 2004–2005, Reading Recovery teachers taught an average of 8.1 Reading Recovery students and 35.4 non-Reading Recovery students.
   www.ndec.us
9. increased self-esteem and self-efficacy for initially low-achieving children
10. a university-school partnership to support literacy instruction for all children

Endnotes

1 Elbaum et al. (2002) applied statistical procedures (meta-analysis) that allowed them to examine multiple experimental studies. They found significant effect sizes for Reading Recovery as a tutoring program, but then suggested that small-group may be as effective as one-to-one instruction. This extrapolative finding came after examining studies that were not comparable across variables such as grade level, level of teacher training, foci of instruction, or outcome measures. In fact, the meta-analysis included two studies that compared Reading Recovery with small-group teaching—one master's thesis and one doctoral dissertation. One of the studies included only four Reading Recovery children in the sample, and they were taught by a teacher who had not completed her Reading Recovery training. In the other study, teachers for the "Reading Recovery" children (n = 4) were trained in special education but had no Reading Recovery training. These researchers seem to be comparing apples to oranges.

2 All studies used standard measures of reading performance such as the Iowa Test of Basic Skills, Stanford Achievement Test, or the Gates-MacGinitie Reading Test and found that Reading Recovery students who successfully completed lessons continue to meet grade-level expectations and that literacy performance after Reading Recovery seems to become stronger over time. A summary of these studies is available in *Changing Futures: The Influence of Reading Recovery in the United States* (Schmitt et al., 2005) or online.
http://www.readingrecovery.org/sections/research/progress.asp

3 While more than two studies were reviewed, the primary basis for Hiebert's arguments rests on the re-analysis of two Reading Recovery studies (Pinnell, 1989 and Pinnell et al., 1994), neither of which was designed to pose the question asked by Hiebert, as it was not relevant or sensible at the time . . .

"In both those studies, researchers employed standard research techniques using comparisons designed to reveal the impact of the program; we were finding out what Reading Recovery could do and how it works. Using data from these studies to answer a question that the data were not designed to address is like criticizing the Apollo Space Program because it failed to populate the moon and cost a great deal for every 'settler' who landed" (Pinnell et al., 1996).

4 There are two ways of calculating the cost of an intervention such as Reading Recovery: cost effectiveness analysis and cost benefit analysis (Levin & McEwan, 2001). Cost effectiveness analysis is done comparatively; Reading Recovery would be more or less expensive than a comparable program. No such comparative study has been undertaken. Any claims that Reading Recovery is more expensive than an alternate approach used for the same population has no foundation in an actual economic analysis. It simply amounts to a value-laden assertion that Reading Recovery is expensive in absolute terms.

Cost benefit analysis is done by computing a quantifiable unit of program objective (Kee, 1994). This program objective would have to be comparable across different interventions. In the case of Reading Recovery, it would have to be something like "percent of first grade students scoring below the 20th percentile in fall of first grade on a nationally standardized reading assessment who reached average reading levels on that same assessment by year-end," with average being defined as within one standard deviation of the mean or within the interquartile range. We are not aware of any studies meeting this definition.

Two studies were conducted using actual school district data and using somewhat less sophisticated methods. They both compared the cost of Reading Recovery to the non-equivalent alternative of placement into special education. Both found that Reading Recovery saves school districts money by reducing the amount of inappropriate referrals and placements into special education (Assad & Condon, 1996; Lyons & Beaver, 1995).

5 A 2002 study of 11 districts in New York City evaluated the effects of Reading Recovery on the special education referral and placement rate. The study compared 2,354 children who had a complete Reading Recovery intervention with 1,770 children who had been identified for Reading Recovery but did not receive lessons (their scores were slightly higher). The study revealed that children who received Reading Recovery were referred at a statistically significant lower rate, 5% reduction in estimated referral rate and a 3% decrease in placement rate (O'Connor & Simic, 2002).

6 A study in Fall River, MA, reviewed cost data for 186 Reading Recovery students served in 2 years (1993–1994 and 1994–1995) as well as costs associated with retention, special education, and Title I placement. The cost comparison included utilization of those services before and during Reading Recovery. Findings revealed a $1,262,874 net savings, thus allowing funds to be shifted to meet other important literacy needs (Assad & Condon, 1996).
http://www.readingrecovery.org/sections/research/becauseitmakesadifference.asp

7 In Lancaster, OH, Lyons and Beaver (1995) conducted a cost comparison analysis for first-grade retention 4 years after Reading Recovery was implemented system-wide. The study revealed that the first-grade retention rate dropped from 4.3% (76 of 1,772 students) in the 3 years prior to Reading Recovery to 2.9% (63 of 2,123 students) after system-wide implementation. Using teacher salaries and students' time in the program, these figures represented a $163,020 cost savings. The district also looked at special education placements. In the 3 years before full implementation of Reading Recovery, 32 students were placed in learning disabilities classrooms at the end of first grade or during the first few months of second grade. In the 3 years after Reading Recovery implementation, 10 children were classified as learning disabled. With a cost estimate of $9,100 per student across 4 years of elementary school, compared with the $1,708 for Reading Recovery, the district realized a considerable cost savings.

8 This definition of standardized testing is provided by the authors of the Iowa Test of Basic Skills: "A standardized test is an assessment tool that has a 'sameness' to it in terms of the tasks students are asked to complete, the procedures used to administer it, and the methods used to score it. … 'Standard' simply means that it is the same for everyone … There is a common myth held by many educators that standard procedures apply to commercially developed norm-referenced tests but not to criterion-referenced tests, whether locally or commercially developed (Hoover et al., 2003)." The Observation Survey tasks, as defined by their developer Dr. Marie Clay, provide "… a standard task; a standard way of administering the task; ways of knowing when we can rely on our observations … (Clay, 2002)."

There is no assessment given to all students in the U.S. for one grade. The closest we come to national standards are the National Assessment of Educational Progress (NAEP) assessments. The earliest such assessment is in fourth grade. National norms are available for the six tasks of the Observation Survey (Gómez-Bellengé & Thompson, 2005). These allow local schools and districts to evaluate their local implementations of Reading Recovery using national norms.

9 The Grossen, Coulter, Ruggles (1997) report that Farrall cites as evidence (here and in several other places in this article) is a collection of misinformation used out of context to support a narrow view of the beginning reading process.

10 Various studies on the efficacy of the Reading Recovery intervention have found high correlations between results obtained by the tasks of the Observation Survey and other standardized assessments, such as the Slosson, the Iowa Test of Basic Skills, the Gates-MacGinitie, the Woodcock and others (Pinnell et al., 1994; Quay et al., 2001; Gómez-Bellengé, Rodgers, Wang, & Schulz, 2005; Schwartz, 2005). Student gains following the Reading Recovery intervention observed using the tasks of the Observation Survey were also found when other measures were used. The tasks of the Observation Survey show high internal validity and reliability (Clay, 2002).

An independent meta-analysis of Reading Recovery found that "As expected, program effects were most pronounced for Observation Survey Measures, but were also substantial on standardized achievement tests for those students who were successfully discontinued from the program. Therefore, we conclude that a selection by regression artifact likely was not the sole reason for past observed RR effects. … On all six Observation Survey Measures, RR students, both discontinued and non-discontinued, appeared to have larger pre-post differences than similar needy students. RR discontinued students also appeared to have larger pre-post differences than regular students on these measures …" (D'Agostino & Murphy, 2004).

A recent study using the six measures of the Observation Survey addressed issues of selection bias, the non-normal distribution of the scores, and the non-equal interval scale of the text-level measure with a methodology that combined propensity scores and latent variable modeling for student selection and Structural Equation Modeling for analyzing the effects of the intervention (Ye & Gómez-Bellengé, 2006). This approach yields an underlying construct that is on a continuous and interval scale. The study found a significant positive treatment effect for Reading Recovery students

that was "… not due to selection bias and is invariant for students with different initial reading achievement." Students who were low readers but not served by Reading Recovery made significantly less progress than those served by Reading Recovery. When initial reading level was taken into account, the children with the very lowest initial reading achievement made as much progress as children with higher initial reading levels.

11 This assertion has been rehashed nearly endlessly. It originates from the fact that, over a decade ago, evaluation reports for Reading Recovery reported only students served for a complete series of lessons in some of the tables. It is standard practice in educational research to study the group of children who have received the benefits of a complete intervention, as well as to exclude some children for whom data are not available. The annual local, regional, and national evaluations of Reading Recovery report all children served *and* the subset of children who completed interventions. Nationally, in 2004–2005, 90,535 of 115,579 children (78.3%) served completed their series of lessons. Reading Recovery is unique nationally in that every child served, even if for only one lesson, is part of the annual evaluation, both at the local level and nationally. A detailed analysis of the national evaluation's intent to treat approach can be found in the annual national reports. This analysis excludes only .0013% of the children (167 children out of 126,667) served due to missing data. (See Gómez-Bellengé, Rodgers, & Schulz, 2005). It is difficult to see these continuing misrepresentations as anything other than disingenuous.

12 In her 1994 study, Hiebert quoted Pinnell, Short, Lyons and Young (1986) implying that children are regularly removed from Reading Recovery prior to completion of the child's first 10 lessons, commonly known as "Roaming Around the Known." That statement is an error because removing children is contrary to official Reading Recovery policy in the United States. (Farrall cites Hiebert et al. 2000, yet lists only the 1994 study in her references.)

Shanahan and Barr (1995) claimed that in the Pinnell et al. (1994) study, half the data were lost. That was an error, and Shanahan and Barr acknowledged the error. Letters were published in subsequent issues of *Reading Research Quarterly* to correct the error.

This charge was addressed for a third time in *What Evidence Says About Reading Recovery* (2002) which is available online at http://www.readingrecovery.org/sections/research/Evidence.asp. That document traces the roots of the confusion.

> "Authors of the Internet letter claim that 'studies conducted by researchers associated with typically exclude 25–40% of the poorest performing students from the data analysis' (paragraph 3). Two possible origins of this argument are hypothesized. First, a 1995 article (Center et al., 1995) asserted that Clay's studies had excluded about 30% of children who were either removed or not discontinued from the program. However, Clay's 1979 data clearly negate this claim: No children were dropped from her analyses. Clay responded to this claim in a published letter in *Reading Research Quarterly* (1997). Yet the Center et al. accusation has been carried forward on an ongoing and inaccurate basis by critics.
>
> A second possibility is that the Internet letter authors were referring to studies which have included only discontinued children, those who have successfully completed Reading Recovery lessons. For some research, it is very appropriate to study specific groups of Reading Recovery children to answer identified research questions. For example, some researchers have studied children who successfully completed lessons in order to determine if children who reach average performance at the end of Grade 1 maintain that average status in subsequent years. This is a very legitimate research question. To answer this question, no researcher would include every child; some children would have received few lessons and comparisons would be inappropriate.
>
> Regardless of the confusion leading to the claim that Reading Recovery excludes poorest-performing students from data analysis, it is important to acknowledge that every child served in Reading Recovery, even if only for one day, is counted and reported in data from the National Data Evaluation Center. All evaluation data are inclusive of all children, regardless of outcome status. The broad accusation made in the Internet letter is misleading at best."

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