

Reading Recovery: Anatomy of Folly

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2004

There are substantial problems with Reading Recovery that do not warrant its strong advocacy. Moreover, there are better (more effective and far less expensive) ways to accomplish the objective of trying to ensure that all students become proficient readers. With that in mind, here's an overview.

1. Reading Recovery is an intervention for students in grade one who are struggling to read.
2. Reading recovery requires teachers who are specially trained to use Reading Recovery (Reading Recovery) assessments and methods. Reading Recovery provides many sites around the world for this training.
3. [Reading recovery](#) is one-on-one. Sessions are given daily, for about 30 minutes, and for about 20 weeks.
4. Well over a million children have been in Reading Recovery, in 49 of the United States.
5. Reading Recovery costs anywhere from \$2000 to \$8000 or more per child. This is an astounding amount of money given the relative ease of reading remediation with children who have been mistaught.
6. Reading Recovery can use up ALL of a school's Title I funds. There are schools serving poor students ("90% free or reduced lunch") that spend over \$125,000 per year on Reading Recovery. These funds could have been used to buy every graduating fifth grader a computer or a set of the most important books in the world, or to buy better beginning reading curricula.
7. Serious questions are raised about the validity of Reading Recovery assessment instruments (and therefore data), the assignment of children to intervention groups, and about claims of effectiveness. For example, one objective (and claim to effectiveness) is that students end the

Reading Recovery intervention at least in the range of average for their classroom. This NORM referenced criterion is not terribly useful. What if the average for a class is low? A similar example would be claims that a drug will lower your blood pressure to the average for your community. Not a good thing if the average is 155/120!

8. The Reading Recovery website has recently been changed. Reading Recovery is now presented in a way that makes it appear to be perfectly consistent with the preponderance of research—what reading is (the five main skills) and how best to teach it (systematically and explicitly). I am not accusing anyone of duplicity, but it is a fact that Reading Recovery has not been considered consistent with the tenets of Reading First, and therefore could not be used by states that wanted to receive Reading First funds.
9. Which is the wisest hypothesis if some students are struggling to read in grade one?
 - a. These students have something wrong with them, and need a special intervention that costs from 2 to 8 thousand dollars per student.
 - b. The beginning (core) reading curriculum is not adequate for some students—just as a standard diet does not give some students the amount of iron they need. We should examine the core curriculum in light of [principles of sound design](#) and, if indicated, get a better one. We should also obtain good supplemental and intervention programs and create a complete curriculum. We should use the supplemental and intervention programs with students in grade one who are struggling (much cheaper and there is every reason to believe they would work). And we should pilot test the new complete curriculum to see if the percentage of struggling readers decreases. If there are still a few struggling readers, we should give [diagnostic tests](#) to see if they have *phonological processing problems* (e.g., they can't easily hear the separate sounds in words; they can't quickly transform a thought into a spoken word; they have poor short term memory, and therefore forget

the word they are sounding out), and, if so, give them specialized interventions noted above.

10. Reading Recovery has *some features of a cult*. Its advocates identify closely with Reading Recovery. They (in my experience) are true believers in its theory and methods. They are not open to criticism or to data from experimental research that questions the efficacy of Reading Recovery or the validity of its theory of reading.
11. *Whole language and Reading Recovery are similar in many ways*—they use qualitative and subjective assessments; and they teach students to use cues OTHER than the letters to identify what words say.
12. Reading Recovery is emblematic of much that is wrong in the field of education.
 - a. Administrators implementing programs with no credible information on how well it works, without a serious examination of their own curriculum to see how exactly the new program fits, and with no idea of alternative programs.
 - b. Teachers in education schools NOT being taught enough about a knowledge system (reading, math, history) or about instructional design or about the canons of credible research that they can judge the logical and empirical adequacy of the programs their professors teach them.
 - c. The program, or method, or curriculum, or innovation is organized as *a closed system that perpetuates and at the same time hides its inadequacies*. For example, if you include memorizing words, holding a book properly, and identifying print (e.g., signs on the wall), as examples of early reading skills, then whole language appears to be effective—even though (given a sane definition of reading) the students aren't reading.

And of you define success as bringing students up to the average reading level in a class--even if the average--in a CRITERION referenced sense—is

low (the average students can't read worth a dang!)--then Reading Recovery looks effective.

And so, uniformed principals and ill-educated teachers cling to whatever methods that now have a history in the system, and on which they've spent so much money and time and effort. And the inadequacies of the method harm students year and year after year.

Following is an extended examination of Reading Recovery.

Review of Research on Reading Recovery

A number of empirical considerations render Reading Recovery a questionable intervention for early elementary students who need instruction to ensure and to accelerate: (1) the acquisition of essential elemental reading skills (e.g., phonemic awareness, sound/symbol correspondence, decoding strategies); and (2) fluent reading with high comprehension (Adams, 1990; Blachman et al., 1999; Brett, Rothlein, & Hurley, 1996; Castle, Riach, & Nicholson, 1994; Cunningham, 1990; Davidson & Jenkins, 1994; Faulkner & Levy, 1999; Levy, Nicholls, & Kohen, 1993; O'Connor, Jenkins, & Slocum, 1995; Pressley et al., 1989; Pressley et al., 1994; Stuart, 1999; Vandervelden & Siegel, 1997). These considerations include the following.

1. Essential design features of Reading Recovery conflict with the preponderance of scientific research and with the guidelines of Reading First.
2. By emphasizing meaning and context-cue guessing over first teaching children directly, systematically, and comprehensively to read and comprehend words by using the code, Reading Recovery provides struggling readers with too little of the skills they need to become proficient readers.
3. Reading Recovery is less effective than it purports to be and does not provide many struggling readers with the skills they need.
4. Reading Recovery's evaluation methods and data appear to be unreliable, overly-subjective, and invalid with respect to individual student progress

and the cost-effectiveness of Reading Recovery at school, district, and state levels.

5. Reading Recovery appears to violate principles of equity.
6. Reading Recovery is very expensive.
7. Reading Recovery does not appear to foster needed school-level reform of reading curricula.
8. There are more cost-effective approaches than Reading Recovery to beginning and early remedial reading.

The Essential Design Features of Reading Recovery Conflict with the Preponderance of Scientific Research and With the Guidelines of Reading First.

Reading Recovery rests on the assumption that reading is a problem solving process. Readers scan the lines and the page for cues, make predictions about what words say and which words come next, cross-check (using more cues), and correct errors. In this view, **a child's sense of the meaning of sentences is the child's main guide to what words say—rather than what words say being the main guide to what a sentence means.** Therefore, in Reading Recovery, children are taught to use many other kinds of meaning "cues" before they are taught to use "phonics"--knowledge of sound/symbol relationships (m says /m/)--to decode and comprehend words. These nonphonic cues include the size and shape of words, layout of the print, pictures on the page, analogies between known and unknown words, word order, syntax, and special knowledge from past experience. Indeed, Reading Recovery teachers are told that stressing sound/symbol knowledge (as in word attack, decoding, or sounding out words) diverts from comprehension. The founder of Reading Recovery, Marie Clay, states:

In efficient rapid word perception, the reader relies mostly on the sentence and its meaning and some selected features of the forms of words (Clay, 1991, p.8). With meaning as both guide and goal, the reader checks what he thinks the text will say with visual information, and by carrying out analytic manipulations (Clay, 1991, p. 235).

We have minimized the explicit teaching of phonics. We have taught the child a variety of procedures for analyzing words into sounds..." (Clay, 1979, p. 64).

However, in contrast to practices in Reading Recovery, instruction is more effective when children--especially struggling or at-risk readers--first master the "code" (sound/symbol relationships) than when they try to figure out words from the meaning-context (Foorman, 1995). Reading words using the code--knowledge of sound/symbol relationships (m says /m/)--is the primary strategy used by good readers, and is the most reliably effective and safest method for teaching both beginning and struggling readers (Adams & Bruck, 1993; Blachman et al., 1999; Foorman et al., 1998; Greaney, Tunmer, & Chapman, 1997; Lyon, 1996; Pressley, 1998; Torgeson et al., 1999). The following statements summarize the preponderance of research on this issue.

Skilled reading is not sampling features of the text on the run, it is not a psycholinguistic guessing game, and it is not incidentally visual. Rather, research has shown that 'skilled readers process virtually all the words they encounter in connected text, and typically, all the letters in those words' (Vellutino, 1991, p. 82). Research further indicates that skilled readers are sufficiently fast and accurate at recognising words in text to make reliance on contextual information unnecessary (Perfetti, 1985). (Tunmer & Hoover, 1993, p. 167).

NICHD and substantial non-NICHD research does not support the claim that the use of context is a proxy for applying decoding strategies to unknown or unfamiliar words...The strategy of choice among well-developed readers is to decode letters to sound in an increasingly complete and accurate manner, which is dependent upon robust development of phonemic and phonics skills (Lyon, 1999).

...the scientific evidence is simply overwhelming that letter-sound cues are more important in recognizing words than either semantic or syntactic cues" (Pressley, 1998, p. 16) and that heavy reliance on semantic and syntactic cues is a "disastrous strategy" for beginning readers (p. 32).

Reading Recovery is a 12 to 20 week, daily intervention for struggling readers in grade One. It costs anywhere from \$2000 to \$8000 per student. Yet, there is strong reason to question the claims of Reading Recovery advocates that Reading Recovery is effective and worth the price. Basically, there is a lot of good research that says it **doesn't work**. Why, then, is it Reading Recovery popular--often the reading intervention of choice? I will offer some reasons at the conclusion. Let us now continue with our analysis.

Reading Recovery provides struggling readers with too little of the skill they need to become proficient readers.

Reading Recovery rests on the premise that teachers should emphasize context-cue guessing over first teaching children directly, systematically, and comprehensively to read (recognize words and comprehend) by using the code. However, a major reason why children struggle with reading in the first place, and are selected for Reading Recovery and other remedial programs, is that they (1) have not mastered phonemic awareness and sound/symbol relationships, and therefore (2) cannot fluently (accurately and rapidly) read words, and therefore (3) they cannot comprehend (or they quickly lose the sense of) what they are reading (Tunmer et al., 1998). In other words, ***struggling readers use context-cue guessing, and they do this precisely because they are not skilled at the most efficient strategy--namely, sounding out words*** (Nicholson, 1991; Raynor & Pollatsek, 1989). Indeed, children who use contextual guessing and picture cues are 4.5 times more likely to require Reading Recovery after one year of reading instruction (Chapman, Tunmer, and Prochnow, 2001, p. 146). Furthermore,

The word recognition skills of these children remain relatively weak because they do not develop as rich a network of sublexical connections between orthographic and phonological representations in lexical memory as normally developing readers (Chapman, Tunmer, and Prochnow, 2001, p. 144).

By teaching struggling readers to use context-cue guessing (*which is part of the reason they can't read to begin with!*) rather than systematically and comprehensively teaching the code, *Reading Recovery appears to decrease these children's later chances of being good readers*, because (1) in more advanced text, the most important and informative words are harder to guess from the context; and (2) more advanced texts provide fewer and fewer context cues from which students might try to derive meaning (Schatz & Baldwin, 1986). Therefore, it would be expected that any benefits of Reading Recovery in grade 1 would diminish rapidly as text difficulty increases in higher grades, where context-cue guessing will not work. This is exactly what does happen, as discussed in the next section.

Moreover, recent research shows that *children in Reading Recovery learn to read better when explicit phonics instruction is added to a Reading Recovery program*; e.g., "rime analogy training" (Greaney, Tunmer, & Chapman, 1997), segmenting, blending and riming (Tunmer & Hoover, 1993), and word study to develop phonological awareness and decoding skill (Santa & Hoein, 1999). *In other words, if you simply teach students properly in the first place, they wouldn't NEED an intervention. How come you don't hear advocates of Reading Recovery offering that obvious solution?*

Reading Recovery is Less Effective Than It Purports to Be and Does Not Provide Many Struggling Readers with the Skills They Need.

For example, evaluation research shows that:

1. "...participation in the Reading Recovery programme did not eliminate or reduce (the) phonological processing deficits" that in part define children as struggling readers (Chapman, Tunmer, & Prochnow, 1999, 2001).

2. The progress of Reading Recovery students remained "persistently well below that of the ND ("Normally Developing") children" (Chapman, Tunmer, & Prochnow, J.E., 1999).
3. "The Reading Recovery group obtained significantly lower scores than the ND group on all reading performance measures on each of the three post-Reading Recovery testing occasions... (Chapman, Tunmer, & Prochnow, 2001, p. 165).
4. Following Reading Recovery, "...Reading Recovery children performed relatively poorly in terms of word identification, reading comprehension, classroom book reading level, and reading accuracy" (Chapman, Tunmer, & Prochnow, 1999, 2001, p. 165).
5. In a large study of Ohio's Reading Recovery, only 53% of the children eligible for Reading Recovery scored at the classroom average on book level measures by the end of grade 1 (Battelle, 1995).
6. "Reading Recovery failed to significantly improve the literacy development of children considered to have succeeded in the program: Reading Recovery children showed no signs of accelerated reading performance, and one year after completion of the programme, they were performing at around one year below age-appropriate levels" (Chapman, Tunmer, & Prochnow, 1999).
7. Twelve months after they were "discontinued" (i.e., finished with Reading Recovery), about 35% of children continued to benefit, about 35% were no longer "recovered," and "The remaining 30% probably would have improved without such intensive intervention, since a similar percentage of control and comparison students had reached average reading levels by this stage" (Center et al., 1995, p. 241).

8. Children who received Reading Recovery gained 4.6 book levels at time of discontinuation over children who needed remediation but did not receive Reading Recovery. However, at follow-up, the Reading Recovery advantage dropped to 2.4 book levels. For the neediest of struggling readers, the advantage of Reading Recovery was only 1 book level at follow-up (Glynn & Crooks, 1992).
9. "...by third grade, the Reading Recovery instructed groups may not be significantly different from the comparison groups as indicated by measures of text reading" (Shanahan & Barr, 1995).
10. Regarding comprehension, former Reading Recovery students perform about the same as comparison groups of struggling readers who did not receive Reading Recovery. Specifically, "proficient oral reading performance at Grade 1 has not resulted in self-extending strategies to other literacy tasks in subsequent grades" (Hiebert, 1994, p. 20).
11. Maintenance of skills taught in Reading Recovery is low. For example, even when the primary criterion is a task that is common in Reading Recovery tutoring—oral reading of text—levels of maintenance at Grade 4 are low. In Grade 4, approximately 4 students or 5.5% of the cohort will be able to orally read text at the average school level and will score at the average school level on the WRMT-R (Hiebert, 1994, p. 23).
12. For children who completed Reading Recovery, the average score for Oral Accuracy was the only score which "met or exceeded grade-level standards," and "The lowest average score was for Oral Comprehension" (San Diego Unified School District, 1999, p. 4).
13. "Literacy Assessment test scores indicate first grade students who successfully completed the English version of Reading Recovery, on

average, scored lower than the control group of non-participating students on all three sub-tests" (San Diego Unified School District, 1999, p. 5).

14. "SAT 9 test scores indicate first grade students who successfully completed the English version of Reading Recovery, on average, scored lower than the control group of non-participating students using the internal studies conducted by the District's Reading Recovery/DL Program" (San Diego Unified School District, 1999, p. 5).
15. "...Reading Recovery children showed declines in reading self-concept following Reading Recovery, and they held more negative perceptions of ability in reading and spelling, and in general academic self-concept six and twelve months following Reading Recovery" (Chapman, J.W., Tunmer, W.E., & Prochnow, J.E. (1999).
16. Reading Recovery does not appear to decrease the need for other services, such as special education and Title I (Shanahan & Barr, 1995, p. 987; Pollack, 1994).

Reading Recovery Evaluation Appears to be of Questionable Reliability and/or Validity.

The validity of Reading Recovery claims to effectiveness is weak in several ways.

1. The validity of findings and interpretations is threatened by the composition of the treatment group. In many analyses, only students who are discontinued (i.e., judged successful) are examined. Some students are omitted because of absences and other learning problems. Other students begin Reading Recovery but are eliminated at the teacher's discretion for low potential (Hiebert, 1994). This makes "the program appear more effective than it really is" (Shanahan & Barr, 1995, p. 991).

2. The major forms of evaluative data are subjective and may be biased. In Reading Recovery, running records (a major outcome measure) are used to determine where a child places in the 20 levels of book difficulty (Clay, 1993). These records are provided by the Reading Recovery teachers (who have an obvious stake in the outcomes), rather than by impartial evaluators. Moreover, running records involve qualitative analysis with a high level of inference. For example, Clay says, "...you need to look at every error the child makes and ask yourself 'Now what led the child to do (or say) that?'" (Clay, 1993, p. 31).

The possibility of unreliability and invalidity are underscored by research showing that, although Reading Recovery teachers rate "discontinued" (i.e., successful) students who can read books at a level of 16., the same children's classroom teachers rate the children's reading book level as only 9 (Chapman, Tunmer, & Prochnow, 1999).

3. The design of many Recovery evaluations does not rule out the effects of maturation and other learning experiences (e.g., reading in class and at home) that can account for changes (Shanahan & Barr, 1995). Again, claims to effectiveness are likely to be inflated.

Reading Recovery Appears to Violate Principles of Equity.

Reading Recovery may violate principles of equity in three ways.

1. A major objective of Reading Recovery is to bring struggling readers to the average level of first grade classroom achievement. ***However, this average level differs markedly from school to school and community to community.*** The average school performance in low income areas is generally at the 20th percentile, while the average performance in more affluent areas is at the 80th percentile. ***Therefore, to bring low-income struggling readers to the 20th percentile sustains their educationally disadvantaged status*** (Grossen, Coulter, & Ruggles, 1996).

Moreover, children who read at the 20th percentile level are not likely to be academically successful later. Such child need school-wide effective beginning reading programs that aim for mastery before the end of grade 1.

2. Reading Recovery is designed to serve the lowest 20 percent of a school population. This may be equitable in a school with few struggling readers. However, in a school where a majority of children are struggling readers, ***servicing the lowest performing children will leave a large percentage of struggling children untreated.*** In other words, Reading Recovery is not designed to solve illiteracy problems in schools with a high proportion of at-risk children.
3. Reading Recovery purports to work with the lowest achieving readers in a school. However, the most needy children may be excluded--sometimes because they are judged too difficult to work with or not likely to benefit. For example, Glynn & Crooks (1992) report that "Reading Recovery teachers and/or STJCs in three schools said they would not take particular mainstreamed special needs children into Reading Recovery as they were 'too slow to go into Reading Recovery'."
4. In contrast to the explicit objective of Reading First and the No Child Left Behind legislation--which seek to produce high reading achievement in all children--***Reading Recovery "never envisioned to recover 50% or more of the children reading below grade level...It was designed to recover 10 to 20% of struggling readers after one year of reading instruction*** using the New Zealand Balanced Reading Programme" (Reutzle, 1999, p. 323).

Reading Recovery is Very Expensive.

Several studies report the high costs of Reading Recovery when teacher training, salaries, and materials are considered.

1. Heibert (1994) calculated that the cost per successful student was \$8,333.
2. Shanahan & Barr (1995) calculated that Reading Recovery cost between \$4600 and \$8333 per successful child.
3. A longitudinal study (1991-98) by the San Diego Unified School District found that the cost per student ranged from \$5,112 to \$11,775.

In some districts, a child's one-to-one Reading Recovery (60 lessons) costs more than the entire year's schooling. Grossen et al., (1996) state that "the data indicate that the cost for Reading Recovery (30 hours of instruction for one child) exceeds the national average per pupil expenditure for one full year of schooling."

Reading Recovery Does Not Appear to Foster Needed School Reform of Reading Curricula.

Reading Recovery is a one-to-one pull-out tutoring program for children in grade 1. It is designed to serve a small number of individual children. *It is not the proper solution for schools and districts serving disadvantaged children*--children who come to school ill-prepared for reading instruction. These schools cannot wait for children to become struggling readers because of inadequate beginning reading instruction and/or phonological processing weaknesses (Lieberman, Shankweiler, & Liberman, 1998). Rather, these schools must focus upstream--on prevention of reading difficulties--rather than wait for problems to emerge in grade 1. Such prevention requires school-level or district-level focus on effective reading curricula in pre-k to grade 1 that will teach children essential skills--such as language, phonemic awareness, vocabulary, sound/symbol relationships, decoding strategies, and comprehension strategies (as shown by the preponderance of scientific research)--so that these children by the end of first grade are becoming proficient readers who do not need remedial reading (Chall et al., 1990;

Shanahan & Barr, 1995; Torgeson, 1998). Arguably, *only a small percentage of first graders (children with true processing difficulties) would need remediation if they were properly taught the first time.*

There Are More Cost-effective Approaches Than Reading Recovery to Beginning and Early Remedial Reading.

These cost-effective alternatives include the following.

1. In light of research cited above that questions the efficacy of Reading Recovery, it would be wiser for a district to implement school-wide and district-wide beginning reading instruction in kindergarten, and even in pre-k for at-risk children, using field-test curricula that provide direct, systematic, and comprehensive instruction on language, phonemic awareness, sound/symbol relationships, decoding (sounding out) strategies, fluency, and comprehension—rather than wait for reading problems to emerge and then spend anywhere from \$4000 to \$11,000 on Reading Recovery per first grade child.
2. Systematic, explicit classroom instruction on phonemic awareness and phonics using decodable text was more effective with Title I children than a Reading Recovery support program. Indeed, it was found that "It was the classroom curriculum effect, not the tutorial method effect that was significant (Foorman, Francis, Beeler, Winikates, & Fletcher, 1997, p.16).
3. Reading Recovery students read better when explicit phonics instruction is added to a Reading Recovery program; e.g., "rime analogy training" (Greaney, Tunmer, & Chapman, 1997), segmenting, blending and riming (Tunmer & Hoover, 1993), and word study to develop phonological awareness and decoding skill (Santa & Hoein, 1999).
4. Fincher (1991) found that "...teacher Assistants with almost no training and minimal teaching materials with which to teach and working in less than

desirable conditions, outperformed the Reading Recovery teachers when their students' overall achievement was compared" (Fincher (1991).

5. For at-risk or struggling children, it is reasonable to use standardized, objective instruments for identifying children's reading difficulties and then providing timely use of explicit, focused instruction (Lovett & Steinbach, 1997; Torgeson et al., 1999). For example,
 - a. Lovett et al. (1994) developed a 35 lesson word identification program for dyslexic students for one hour four times per week. This program achieved highly significant results with the "core deficit"; namely, phonological processing and nonword reading skills (p. 818).
 - b. O'Conner et al., (1995) provided a program for at-risk readers. The program lasted five hours (15 minutes twice weekly for 10 weeks), and taught letter-sounds, segmenting, and blending. A second experimental group had a wider range of phonemic awareness activities. The authors conclude that students in both groups generalized the skills they were taught and used them in the reading process.
 - c. Hempenstall (2002) developed and evaluated a 50-hour program for early elementary students with many of the same reading difficulties of students selected for Reading Recovery; e.g., below average scores on phonemic awareness, pseudo-word decoding, picture naming, digit span, and spelling--in other words, precisely the children whose core phonological deficits are present in most struggling readers.

Hempenstall used an inexpensive (about \$20) program, *Teach Your Child to Read in 100 Easy Lessons* (Engelmann, Haddox, & Bruner, 1983). The design features of this program are consistent with the preponderance of empirical research. In contrast to one-to-one Reading Recovery, students were taught in a more efficient group

setting. Comparing the remedial reading group and the wait-list group, Hemenstall found that the remedial reading group made statistically significant gains in word attack, phonemic awareness, phonological recoding in lexical access, phonological recoding in working memory, and spelling.

In summary, in view of Reading Recovery's high cost, its ability to affect only a small number of children in a school, equivocal evidence of immediate and long-term effectiveness, and generally subjective measures, and in view of readily-available, effective, less costly, and pro-active alternatives, a district would be advised seriously to rethink a plan to use Reading Recovery.

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