IS READING DOWNUNDER UPSIDE DOWN?
THE FAILURE OF READING RECOVERY IN NEW ZEALAND

James Chapman
Professor of Educational Psychology
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Reading Recovery

- Reading Recovery (RR) – a nationally implemented intervention programme for children struggling to learn to read after a year of schooling (lowest 15%-20%).

- Programme involves one-to-one withdrawal instruction for 30 – 40 minutes per day for 12 – 20 weeks by a specially trained RR teacher.

- Goal of programme is to accelerate students’ reading achievement to the average level of their peers within a 20 – week period.
• RR introduced throughout NZ in late 1980s and has been a major part of the literacy strategy
• Instruction supposed to be tailored to individual needs
• Develop flexible use of multiple cues (syntactic, semantic, visual, graphophonic) to detect and correct errors while constructing meaning from text (Clay, 1991).
Decisions regarding successful completion ("discontinuation"): 

- reading at a level near the class average;
- attaining a reasonable degree of independence in reading; and,
- spending a certain amount of time in the programme (usually between 12 and 20 weeks)

- Some children not discontinued, but “referred on” for additional specialist support
RR in addition to regular classroom program

Developed to be compatible with NZ whole language approach to literacy instruction

But with a view to exporting the program to other countries, Clay (1993) claimed:

“a Reading Recovery programme can be used with children from any kind of classroom programme, and in a brief period of help, supplementary to the ongoing activities of the classroom, it brings the hardest-to-teach children to a level where they can be full participants in that classroom programme.”
Marie Clay (1987):

RR is a “programme which should clear out of the remedial education system all the children who do not learn to read for many event-produced reasons [i.e., environmental, cultural, or economic causes] and all the children who have organically based problems but who can be taught to achieve independent status in reading and writing despite this” (p. 169).
RR New Zealand website:

“is an effective early literacy intervention designed to significantly reduce the number of children with literacy difficulties in schools,” that forms part of the New Zealand literacy strategy (http://www.readingrecovery.ac.nz).
“The aim of Reading Recovery is to prevent literacy difficulties at an early stage before they begin to affect a child’s educational progress. Providing extra assistance to the lowest achievers after one year in school, it operates as an effective prevention strategy against later literacy difficulties. Nationally, it may be characterised as an insurance against low literacy levels” (emphases added).
• Of the total 6-year-old population, 13.5% entered RR in 2013 (18% in schools offering RR). BUT 24% 6-year olds were in RR from schools that offered RR.
Percentage of Students in RR by Ethnicity: Calculated as Percentage of Students in RR Schools within Each Ethnic Grouping
Māori and Pasifika made up 46.6% of the students involved in RR in 2013. The higher participation rate for Māori/Pasifika indicates that they were already more likely to fall behind in reading after only one year in school.

Home language not considered a major issue as only a small number of these children learn to speak Māori or a Polynesian language as a first language.
RR is more likely to be implemented in high-decile (8-10) schools (71%) than in low-decile (1-3) schools (58%), due largely to RR’s perceived ineffectiveness for students attending low-decile schools.
Book Levels for Discontinued Students

Entry

Exit

Forever discovering

MASSEY UNIVERSITY
Research also strongly indicates RR is differentially effective; RR is not effective for those struggling readers who need help the most. Claim supported by data from three assessments taken before and after RR for successfully discontinued and referred on students:

- Entry and exit scores for successfully discontinued children were much higher than those for referred on children.
Discon mean entry = 13

Discon exit = 29

Ref On mean entry = 6

Ref on exit = 17

Overlap! Some students exit scored exceeded entry scores other students.
Discon entry = 23
Discon exit = 57

Ref On entry = 10
Ref On exit = 32
Overlap again.
Discon entry = 5

Ref On entry = 2

Referred on much lower median entry level scores:

Non-overlapping.

Entry level skewed; Exit level truncated at Level 16 which is recommended minimal level for discontinuation
• RR children in high decile schools were more likely to enter and exit from RR with higher scores than children from low decile schools.

• Research further indicates that many of the lowest-performing 6-year-olds are excluded from RR because they are considered not ready or less likely to benefit from the programme or are withdrawn early from RR because they failed to make expected rates of progress.

• Children who are more likely to benefit from RR are further along the developmental progression from prereader to skilled reader.
• Māori/Pasifika children and children from low-income backgrounds are less likely to be successfully discontinued despite having received more lessons and extra time in RR (stable pattern over past decade).

• Of the total number of children “referred on” (not successfully discontinued), 52% were Māori or Pasifika.
In 2013, Māori & Pasifika = 36% of total 6yr population.

M & P = 46.6% of RR students

48.8% referred on students were Māori or Pasifika.

Deciles 1 – 3: 75.6% discontinued. 15.9% referred on

Deciles 8 – 10: 84.6% discontinued. 11.3% referred on

Decile 1: 15.6% referred on; Decile 10 10.0% referred on

Referred on Ss average 90.3 hrs RR over ave 23.1 weeks

Discontinued SS average 78.7 hrs RR over ave 19.4 weeks
To summarize from National Monitoring Data:

• RR less accessible to Māori & Pasifika students
• RR less accessible to students from low income backgrounds
• Lower access rates possibly because RR’s perceived ineffectiveness with these students
• Significant number lowest performing 6-year olds excluded from RR
• Māori & Pasifika students & students from low income backgrounds less likely to derive benefit from RR
• Positive maintenance effects for most successfully discontinued students very modest or non-existent.
Nicholas & Parkhill, 2013:

95 successfully discontinued RR children in Years 4 to 6 (ages 8-10)

Standardized achievement measures

49% of the children were in the stanine range of 4 to 6, 6% were in the range of 7 to 10, and almost 45% were in the stanine range of 1 to 3.

There is a need for “new interventions based on more contemporary research” (p. 9).
Limbrick & Jesson (2014):

- 342 students, 2-4 years following discontinuation
- 66% stanine ≤ 4 in years 4, 5, & 6 following discontinuation on standardized achievement measures
- 15% stanine 1 & 2
- Average 1SD below mean
- Lack of stronger intervention effect due to inadequate monitoring of ongoing needs
PIRLS 2011 data

NZ $M = 531.02$, $SD = 88.27$

RR $M = 493.10$, $SD = 79.58$

Non-Remedial $M = 568.05$, $SD = 79.96$

Effect size = -.95
NZ $M = 531.02$ $(SD = 88.27)$

RR Decile 1 & 2 $M = 451.76$ $(75.70)$

RR Decile 9 & 10 $M = 515.13$ $(75.80)$

Non-Rem Decile 1 & 2 $M = 499.0$
NZ $M = 531.02$ ($SD = 88.27$)

RR European/Pākehā $M = 502.64$ (80.59)

RR Māori $M = 469.12$ (72.55)

RR Pasifika $M = 463.44$ (71.20)
If RR programme had been successful in achieving goal of substantially reducing number of children who develop ongoing reading difficulties, relatively large gap in reading performance since 1991 should have steadily decreased after RR introduced in 1980s.

RR has in effect served to maintain the status quo of ongoing poor literacy achievement, especially among Māori and Pasifika children.
1. Lowest performing readers excluded from RR. Many schools "preferred to reserve Reading Recovery slots for students they regarded as more likely to benefit from the intervention" (p. 25). But, “implementation of RR was, in most respects, faithful to the RR Standards and Guidelines (RRCNA, 2009)” (p.1). Not so. Effect sizes would have been lower.

2. 52.4% discontinued; 22.4% referred on; 20% not complete for vaguely stated reasons.

3. RR better than doing nothing; about 25% not receive additional instruction. Others small group but no details on type and amount.

4. AERJ article states that RR "enables students to catch up to their peers and sustain achievement at grade level into the future" (p. 3). No evidence to support this claim.
• Children who are more likely to benefit from RR are further along the developmental progression from pre-reader to skilled reader.
Phases of word learning proposed by Ehri and McCormick (1998)

- Pre-Alphabetic Phase
- Partial-Alphabetic Phase
- Full-Alphabetic Phase
- Consolidated-Alphabetic Phase
- Automatic Phase
• Children at low end of developmental progression need more intensive and explicit instruction in phonological skills than what is provided in RR.

• We found in a longitudinal study of RR that students who failed to achieve significant progress or maintain modest gains had limited phonological skills at beginning of programme, during year preceding entry into RR, and during year following participation in RR.
Center et al. (2001) found that the effectiveness of RR interacts with type of classroom instruction. RR students in code-oriented classrooms outperformed RR students in whole language classrooms on four reading measures (although on average, RR students in both types of classrooms failed to reach the average level of their peers on any reading measure).
Several researchers rejected instructional model of RR.

Perfetti (1985):

graphophonic cueing system more central than others

“No matter how helpful they are to reading, [semantic, syntactic, & pragmatic] cues are not really a substitute for the ability to identify a word” (p.239).
• In response to growing concerns about NZ’s relatively large inequities in literacy achievement outcomes, the government established the Literacy Taskforce in 1999.

• Taskforce responsible for providing recommendations aimed at raising literacy achievement of all students but with particular attention given to “closing the gap between the lowest and highest students.”

• Recommendations of the Taskforce constituted national literacy strategy but no fundamental changes in NZ’s approach to literacy education recommended.
• RR has failed to meet its goals

• NZ National Literacy Strategy has also failed to meet its goals
Evidence that NZ’s National Literacy Strategy has Failed

Evidence comes from latest Progress in International Reading Literacy Study (PIRLS) 2011 report.

• PIRLS focuses on achievement and literacy learning experiences of children from 45 countries in grades equivalent to Year 5 in NZ (9-year-olds).

• PIRLS includes a test of reading comprehension and a series of questionnaires, given to principals, teachers, parents, and students, to obtain information on reading behaviours, reading attitudes, and home and school contexts for reading.

PIRLS 2011 results – large disparity between good and poor readers has continued despite policies and resources aimed at closing gap.

• Average reading achievement score for NZ in PIRLS 2011 not significantly different either PIRLS 2001 or 2006.
## Table 1

Means, standard deviations, and percentiles of the reading achievement scores for New Zealand as a function of PIRLS test cycle

<table>
<thead>
<tr>
<th>Test Cycle</th>
<th>Mean Scale Score</th>
<th>Standard Deviation</th>
<th>5th Percentile</th>
<th>95th Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIRLS 2001</td>
<td>529</td>
<td>93</td>
<td>360</td>
<td>668</td>
</tr>
<tr>
<td>PIRLS 2006</td>
<td>532</td>
<td>87</td>
<td>374</td>
<td>664</td>
</tr>
<tr>
<td>PIRLS 2011</td>
<td>531</td>
<td>88</td>
<td>373</td>
<td>666</td>
</tr>
</tbody>
</table>
• Number of countries that significantly outperformed NZ exceeded number of countries that NZ significantly outperformed (similar to PIRLS 2006).

• Of six English-speaking comparison countries, all but one significantly outperformed NZ.

• Trend data revealed that, although there were more increases than decreases in mean reading scores across countries from 2001 to 2011, NZ showed no significant increases in reading performance.
• Standard deviation and range (between 5th and 95th percentiles) for NZ’s reading scores almost unchanged from PIRLS 2001 and 2006 and exceeded values of most other countries, including those of six English-speaking comparison countries.

• Large differences in reading scores between Pakeha/European and Māori/Pasifika students unchanged over past decade.
Table 2
*Mean reading achievement scores for New Zealand as a function of ethnicity and PIRLS test cycle*

<table>
<thead>
<tr>
<th>Test Cycle</th>
<th>Ethnic Group</th>
<th>Pākehā/European</th>
<th>Asian</th>
<th>Māori</th>
<th>Pasifika</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIRLS 2001</td>
<td>552</td>
<td>540</td>
<td>481</td>
<td>481</td>
<td></td>
</tr>
<tr>
<td>PIRLS 2006</td>
<td>552</td>
<td>550</td>
<td>483</td>
<td>479</td>
<td></td>
</tr>
<tr>
<td>PIRLS 2011</td>
<td>558</td>
<td>542</td>
<td>488</td>
<td>473</td>
<td></td>
</tr>
</tbody>
</table>
Why has there been no change in reading achievement?

The relatively wide spread of reading scores in New Zealand is largely a consequence of Matthew effects triggered by the constructivist, multiple cues approach to reading instruction, RR intervention, and assessment practices that fail to appropriately address differences in essential literacy-related skills when children enter school.
• NZ has followed a predominantly constructivist approach to literacy education for the past 25 years.

• Hattie (2007): “students do not learn to read by osmosis, inquiry learning, by constructivist teaching. Instead there needs to be planned, deliberate, explicit and active programmes to teach specific skills.”

• There is little or no explicit teaching of phonemic awareness and alphabetic coding skills.
• Word analysis activities, if any, arise primarily from the child’s responses during text reading and focus mainly on initial letter sounds.

• Underpinning the constructivist approach to literacy teaching is the “multiple cues” theory of reading (or “searchlights” model).
Multiple cues theory of reading

The reader

- Prediction from prior knowledge
- Prediction from syntax
- Prediction from story grammar
- Help from other readers
- Prediction from phonic knowledge
- Prediction from illustration
- Visual input

Constructing the author’s message

Figure 3 Diverse cues for constructing meaning - Interactive model
“...in efficient rapid word perception the reader relies mostly on the sentence and its meaning and some selected features of the forms of words. Awareness of the sentence context (and often the general context of the text as a whole) and a glance at the word enables the reader to respond instantly” (Clay, 1991, p.8).
Beginning readers “need to use their knowledge of how the world works; the possible meaning of the text; the sentence structure; the importance of order of ideas, or words, or of letters; the size of words or letters; special features of sound, shape and layout; and special knowledge from past literary experiences before they resort to left to right sounding out of chunks or letter clusters or, in the last resort, single letters” (Clay, 1998, p. 9, emphasis added).
What can be done to overcome the failure of New Zealand’s National Literacy Strategy?

- Use differentiated instruction from outset of formal schooling that takes into account interactions between school entry reading-related skills (high vs. low pre-literate skills) and method of teaching reading (constructivist vs. explicit approaches).

- Significantly alter or abandon RR. The programme is implemented in a discriminatory manner and is not achieving its primary goals.
• We are not advocating a focus on word-level skills that comes at the expense of language and knowledge-based competencies; a balance is needed as both sets of skills are equally important in learning to read.
## Continuum of Approaches to Beginning Reading Instruction

<table>
<thead>
<tr>
<th>Isolated Skill-and-Drill Approach</th>
<th>Metacognitive Strategy Teaching Approach</th>
<th>Whole Language Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Atomistic view of reading acquisition; reading broken down into several subskills</td>
<td>• Dynamic view of reading acquisition; child seen as active learner</td>
<td>• Reading acquisition seen as natural process that is meaning driven; “no meaning, no gain”</td>
</tr>
<tr>
<td>• Heavy emphasis on teaching subskills in isolation; much seatwork and use of workbooks</td>
<td>• Emphasis on developing self-improving strategies for recognizing words and on how and when to use such strategies</td>
<td>• Minimal emphasis on word analysis activities; should only arise incidentally in context of reading connected text.</td>
</tr>
</tbody>
</table>
Contributing further to failure to improve literacy learning outcomes are restrictive policies regarding first year of literacy teaching stemming largely from RR’s “wait-to-fail” approach to reading intervention.

- First formal assessment of literacy skills in NZ occurs at end of child’s first year of schooling with use of Clay’s Observation Survey.

- Clay (2005) argued against earlier assessment because “the child should be given sufficient time to adjust to the school situation and a variety of opportunities to pay attention to literacy activities” (p. 12).
The Cognitive Foundations of Learning to Read

Knowledge of the Alphabetic Principle

Letter Knowledge

Phonemic Awareness

Alphabetic Coding Skill

Word Recognition

Background Knowledge and Inferencing Skills

Language Comprehension

Phonological Knowledge

Vocabulary and Morphological Knowledge

Linguistic Knowledge

Syntactic Knowledge

Reading Comprehension
The great enemy of truth is very often not the lie – deliberate, contrived, and dishonest, but the myth – persistent, pervasive, and unrealistic.

(John F. Kennedy, 1962)