

Reprint

READING RECOVERY AND
CHILDREN WITH ENGLISH AS
A SECOND LANGUAGE

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THIS STUDY SETS OUT TO ANSWER THE QUESTION OF SUITABILITY AND long-term benefit of Reading Recovery for children who have English as a second language. Annual returns to the Mana Reading Recovery Centre (1986-1991) on the entry and exit data, and post-programme progress of ESOL and non-ESOL children are compared. Both groups of children continued to make progress in the three years after completing a programme. Questions are raised concerning the factors likely to enhance or inhibit subsequent progress.

Introduction

Reading Recovery is an early intervention, literacy programme designed to accelerate the most-at-risk readers and writers, from within the regular school population, to the average performance level of their peers, within a short space of time.

Any child turning 6 years old in the ordinary classroom, who is reading and/or writing at a lower level than their peers when measured by the Diagnostic Survey (Clay, 1985), renamed Observation Survey (Clay, 1993), is eligible for a Reading Recovery programme.

Reading Recovery children receive a daily half hour, individual lesson in reading and writing from a trained Reading Recovery teacher. This tuition is supplementary to their classroom reading and writing programme. It continues either until the child shows he or she can operate successfully in the average instructional group in their class without extra assistance or is referred to another agency for further help after a recommended maximum of twenty weeks.

Children are judged to have successfully completed their programme when they can read texts which the average child in the second year at their school can read (this will differ from school to school), and can write stories requiring help with only a few words. To ascertain an individual child's strengths and weaknesses an independent tester re-administers the Diagnostic/Observation Survey (Clay, 1985, 1993).

To ensure that children continue to achieve after successfully completing a Reading Recovery programme it is recommended that schools "be prepared to monitor their progress sensitively" for the next three years (Clay & Watson, 1982).

National data collected in December each year by the former New Zealand Department of Education, now the Ministry of Education, provide "an annual accountability check" (Clay, 1990) on the outcomes of the programme in New Zealand. Figures show that between 1984-1988, the programme was successful with an average of 96 percent of most-at-risk children who entered (Clay, 1990). Less than one percent of the total 6 year-old cohort were identified as needing extra specialist help beyond Reading Recovery (Clay, 1990; Clay & Tuck, 1991).

Research into the success of Reading Recovery in Australia (Wheeler, 1986), in the United States of America (Pinnell, DeFord, & Lyons, 1988; Smith-Burke & Jaggar, 1994) and in Surrey, England (Wright, 1992), shows that the programme also achieves its aims in very different education systems.

Follow-up studies of children one year later (Clay, 1980; Pinnell, et al., 1988; Iverson & Tunmer, 1992) and at least three years later (Clay & Watson, 1982; Pinnell, et al., 1988) show that the vast majority of children continue to progress appropriately with their peers after completing a Reading Recovery programme.

The non-exclusion policy of Reading Recovery means that any child regardless of ethnic group, language spoken, attendance, or potential is eligible for extra assistance. Given this non-exclusion policy, the success of different groups of children is a question of considerable importance (Glynn, Crookes, Bethune, Ballard, & Smith, 1989; Nicholson, 1989; Clay, 1990; Clay & Tuck, 1991).

A review of different subgroups within the 1988 New Zealand Reading Recovery entry population shows that it is not possible to predict ahead of time those children who will need more than the programme or those children who could be successfully excluded from receiving the programme (Clay & Tuck, 1991). The reviewers recommended, for example, that it would be ill-advised to establish a criteria for exclusion according to levels of achievement, as previously suggested by a Dunedin study (Glynn, et al., 1989).

In their 1982 follow-up research, Clay and Watson demonstrated that classroom levels reached and gains over time were similar for three groups in the Reading Recovery programme: for Maori, for Pacific Island, and for European children. This study did not identify the nature of the children's home language. Questions relating to the success and long-term benefit of the programme for children for whom English is a second language have not been addressed. Commonly expressed beliefs by some teachers and specialist educators (Watson, 1987) working with children who had English as a second language, are that these children would be less successful in Reading Recovery than their native English-speaking peers (and possibly should be excluded from the programme); that they would rely dominantly on grapho-phonemic cues at the expense of meaning and syntax; and that subsequent progress would be restricted by their limited oral language proficiency. The question of the necessity for a threshold of language proficiency before children can benefit from bilingualism is also a matter of debate in the literature (Cummins & Swain, 1986; Verhoeven, 1990; Edelsky, 1991). Whilst Wells (1981) queried the extent to which oral language is related to reading acquisition, other researchers equated deficient academic achievement (Oller, 1979), and *learning disability* (Vellutino, 1979) with deficient language proficiency. Labov (1970), on the other hand, rejected any direct relationship between language proficiency and failure, emphasizing the importance of sociolinguistic and sociocultural factors in academic achievement. Edelsky (1991), however, is highly critical of the *threshold hypothesis* (Cummins, 1979; Cummins & Swain, 1986) arguing that it ultimately disempowers minority language students, and that the research on which the theory is based merely measures *test-wiseness* and not language proficiency at all. The present report addresses the Reading Recovery non-exclusion issue, firstly by looking at the general progress in Reading Recovery for children who are learning English as a second language, and secondly by analyzing their continued progress after completion of the programme.

Method

Children

Phase 1 of the study involved all children from a mixed metropolitan-urban-rural population, including those for whom English was their second language, who received a Reading Recovery Programme in the Mana area during 1986 ($n = 528$), 1987 ($n = 466$), and 1988 ($n = 509$) (refer to Table 1). Phase 2 of the study involved three groups of Mana children ($n = 96$) who had successfully completed (discontinued) a Reading Recovery programme during 1986-1988.

The first group comprised ESOL (English for Speakers of Other Languages) children ($n = 37$) who remained in the area for the next three years after discontinuing and who had complete follow-up data (1986 [$n = 8$], 1987 [$n = 13$], and 1988 [$n = 16$]). Each child was paired with a non-ESOL pupil from the second group who met the above requirements, who completed a Reading Recovery programme in the same year, and whose discontinuing reading level and wherever possible entry level, were similar. Table 2 shows the average of paired groups. No comparison using *t*-tests for independent means was significant ($p > .05$). In eight out of 37

instances it was possible to pair an ESOL child with a non-ESOL child in the same school. In all other cases children were paired with a child at a different school (Appendices 1-3).

For purposes of this research, children were defined as ESOL learners (English for Speakers of Other Languages) from teacher classification made in consultation with the family, which identified the children as speaking a language other than English as their first language. No

Table 1
End of Year Results for All Children in Reading Recovery During 1986-1988

	Total	Dis	Ref	CO	Left
Mana					
1986	528	347 (65.7%)	3 (0.6%)	148 (28%)	30 (5.6%)
1987	466	369 (79.1%)	2 (0.4%)	67 (14%)	28 (6.0%)
1988	509	353 (69.3%)	5 (0.9%)	121 (23%)	30 (5.9%)
Mana Averages					
1986 - 1988		71.0%	0.6%	22.0%	5.8%
National Averages					
1986-1988		62.0%	4.9%	27.8%	6.0%
1990		62.6%	5.1%	21.0%	5.5%

Note. *Dis* denotes those children who were successfully discontinued from the programme.

Ref indicates those children who did not meet the discontinuing criteria and were referred for further specialist help.

CO refers to those children who entered their programme toward the end of the school year and were carried over into the next year total.

Left refers to those children who left the school before completing their programme.

Table 2
Average Discontinuing Scores for Matched Pairs

Year		n	Book Level	BURT Score	Writing Score
1986	ESOL	8	19.75	21.13	45.5
	non	8	19.75	19.75	47.5
1987	ESOL	13	18.77	21.25	44.38
	non	13	18.92	20.15	49.08
1988	ESOL	16	18.13	20.00	50.44
	non	16	18.13	19.88	49.69

Note. *t* tests on all means showing no significant difference between the means, $df = 14, 24, 30, p > .050$.

lowest achieving ESOL child was excluded from the programme. Children came into Reading Recovery with differing degrees of control over English. No standard assessment of their first language nor of English was made other than that of being able “to understand the instructions of the Diagnostic Survey” (Clay, 1979). First languages spoken by children in group one included: Samoan (25), Cook Island Maori (4), Toklauan (3), and there was one speaker of each of the following languages: Tongan, Laotian, Filipino, Italian, and Thai.

A further group of ESOL children (n = 22) who were discontinued but had incomplete follow-up data were also involved. It was not possible to find matched pairs for these children. There were a number of reasons for incomplete three-year data after discontinuing. These included: children leaving the school, children who were absent at the time of testing, children in a school where Reading Recovery was dropped for a year through teacher illness, and children who were discontinued in Term One who were followed up at the end of that year and the two subsequent years only.

Data Collection

Programme data. On entry to and exit from a Reading Recovery programme every child is administered the Diagnostic/Observation Survey (Clay, 1985, 1993) and the Burt (NZ revised 1981) Word Test, by trained personnel within the school setting. On entry to the programme this is done by the Reading Recovery teacher. On exit this is done by some other person skilled in administering these tests, such as the classroom teacher, the senior teacher in charge of junior classes, or the principal. The data for 1986-1988 were collated by the Reading Recovery tutor as part of regional and national data.

Follow-up data. Follow-up measures in reading and writing were administered by trained in-school personnel, and collected at the start of the third term in each of the three years after discontinuing. This formed part of each school’s standard monitoring procedure.

Tests: Text reading. Running records were taken on materials which had been used in the children’s instructional programme in the classroom. This included stories from the Ready to Read series and School Journal articles. The child’s instructional level was identified as being the highest level text that he or she could read with 90 percent(+) accuracy. This sometimes necessitated children reading previously unseen material. The Reading Recovery leveling was used as it had been at entry and discontinuing—benchmarked against the Ready to Read series (Clay & Watson, 1982). Approximate reading ages were given to correspond to these levels (Appendix 4). In cases where children were reading School Journals, approximate reading ages were determined by the Elley noun count formula (Elley, 1967; Elley & Croft, 1989).

Word Identification. The Burt (NZ revised 1981) Test provided a comparison with previous Reading Recovery assessments.

Writing Vocabulary. A variety of writing assessments were used depending on the preference of the school. These included the Writing Vocabulary Test (Clay, 1985), the NZCER Spell-Write Word List, and the Peters, Burt, Schannel, or Daniels and Diack spelling tests. None of the spelling tests were normed for New Zealand conditions. In 1989-1991, a large number of schools used the Daniels and Diack Spelling Test and it was possible to compare the achievements of 30 matched pairs at the point of their third year follow-up.

Results

Phase 1: The General Progress of Children in the Mana Area

Both ESOL and non-ESOL children successfully concluded their Reading Recovery programmes. A measure of average book level completed shows that statistically significant progress was made, beyond one chance in 1,000, by both groups over the duration of the programme (Appendix 1: ESOL $t = 35, 63, df = 72, p < .001$; non-ESOL $t = 34.76, df = 72, p < .001$). There were no significant differences between ESOL and non-ESOL groups at discontinuation (Table 2) and both groups of children completed their programme within the recommended time frame. Referral data also supports this conclusion. Table 1 shows that ESOL children ($n = 2$) did not feature greatly in the numbers of those referred for specialist help in the Mana area (1986-1988). This represents 3.3 percent of all ESOL children ($n = 59$) in the study, which is lower than the national average referral rate of 4.95 percent for the same period. This suggests that in terms of discontinuing, the programme is achieving its aims for both children who have English as their first and children for whom English is a subsequent language.

Table 3 shows that subsequent to a Reading Recovery programme the vast majority of all discontinued children in the Mana area (1985-1991) continued to progress with their peers without requiring further specialist help (Ofsted Report, 1993). In 1991, of the 947 children followed up in that year, 900 were reading within 12 months of or above their chronological age when measured on text reading. A further 37 children who were reading 12 months below their chronological age, had maintained or increased their reading levels. Only ten children had dropped reading levels since previous testing.

Phase 2: Progress of Matched Pairs of ESOL and Non-ESOL Children

Follow-up: Text Reading. Table 4 shows that both groups of matched children continued to progress one, two, and three years after discontinuing, with no significant difference between the groups.

At the third year measure the ESOL children had an average chronological age of 9.7 years and non-ESOL children an average chronological age of 9.6 years. The average reading ages were 10.9 and 11.6 respectively. The large majority (above 76 percent) of both groups were reading at or beyond their chronological age on text reading at every checkpoint (Table 5). Three years after discontinuing, 31 (84 percent) ESOL and 34 (92 percent) non-ESOL children were in this category. Table 5 provides the number and percentage of children in matched pairs who were reading text at, above, or below their chronological age at each survey.

At the time of the third year follow-up more than 50 percent of children in both categories (ESOL = 2 [57 percent], non-ESOL = 26 [70 percent]) were reading material at a difficulty level 13+ months beyond their chronological age. This included an increasing number of children in both groups (ESOL = 10; non-ESOL = 20) who were reading more than two years beyond their chronological age.

Thirty-three ESOL and 32 non-ESOL children made continuous progress throughout the three years. A further three children in each group remained at the same level of text reading for two consecutive years. Only one ESOL child and two non-ESOL children dropped reading levels at one checkpoint before moving forward again.

Table 3
Follow-Up Study: Mana Reading Recovery Centre

Year	Number of children followed up	Maintained / Improved reading ability %	Refresher tuition %
1985	275	97.0	3.0
1986	489	99.2	0.8
1987	628	99.8	0.2
1988	661	99.4	0.6
1989	522	98.5	1.5
1990	742	99.6	0.4
1991	947	98.95	1.05

Table 4
Average Text Reading Age for ESOL and Non-ESOL at 1, 2, and 3-Year Follow-Up

	Entry	Dis	FU 1	FU 2	FU 3
	R/L	R/L	R/A	R/A	R/A
ESOL (N=37)	2.7	18.7	7.0	8.3	10.9
non-ESOL (N=37)	2.9	18.8	7.0	8.6	11.6

Note. R/L: refers to reading level as used in Reading Recovery.
R/A: refers to approximate reading age. (df = 72, $p > .05$).

Table 5 shows that at the three-year follow-up two ESOL children and two non-ESOL children were reading text seven to 12 months below their chronological age. This might still be considered to be within the normal reading-age-band for class placement. A further four ESOL children and one non-ESOL child had text reading ages more than 13 months but less than 24 months below their chronological age.

Follow-up: Word Identification. Analysis of ESOL and non-ESOL children's ability to read words on the Burt Word Reading Test shows that the children in both groups made progress whilst in the programme and continued to do so after leaving it. There were no significant differences between the average raw scores of the two groups at any checkpoint (Table 6). Whilst the children in both groups continued to improve in word reading skills, the rate at which this happened tended to decrease for some children in both groups over time (Table 7).

At the third checkpoint only 25.7 percent of the total group were reading isolated words with achievement ages at or above their chronological ages. This was in contrast to the children's ability to read increasingly difficult text with above 90 percent(+) accuracy (Table 5).

Table 6 shows that children in both groups who were discontinued with average Burt scores at or below 20 were more likely to start falling behind their chronological age as measured by the Burt equivalent age band (EAB) at the first or second checkpoint. Twelve ESOL children, with an average Burt score of 26 at discontinuing were closer to their chronological age on word reading at all checkpoints than any other group of children.

Table 5
Text Reading Ages Relative to Chronological Ages For ESOL and Non-ESOL Children at 1, 2, and 3-Year Follow-Up

		FU 1		FU 2		FU 3	
13+ mths above CA	ESOL	11	(29.7%)	14	(37.8%)	21	(56.8%)
	Non-ESOL	13	(35.1%)	22	(59.5%)	26	(70.2%)
7-12 mths above CA	ESOL	7	(18.9%)	5	(13.5%)	5	(13.5%)
	Non-ESOL	7	(18.9%)	6	(16.2%)	3	(8.1%)
+6 mths CA*	ESOL	5	(13.5%)	6	(16.2%)	1	(2.7%)
	Non-ESOL	14	(37.8%)	2	(5.4%)	0	(0.0%)
-6 mths	ESOL	5	(13.5%)	3	(8.1%)	4	(10.8%)
	Non-ESOL	1	(2.7%)	3	(8.1%)	5	(13.5%)
7-12 mths below CA	ESOL	7	(18.9%)	5	(13.5%)	2	(5.4%)
	Non-ESOL	2	(5.4%)	4	(5.4%)	2	(5.4%)
13+ mths below CA	ESOL	2	(5.4%)	4	(10.8%)	4	(10.8%)
	Non-ESOL	0	(0.0%)	2	(5.4%)	1	(2.7%)

*Children who are in the CA band are those who are able to read text within a reading age range from between 6 months above to 6 months below their chronological age.

Table 6
Average Raw Score On BURT Word Reading Test For ESOL and Non-ESOL at 1, 2, and 3-Year Follow-Up

	Entry	Dis	FU 1	FU 2	FU 3
ESOL (N=37)	4.5	20.6	29.4	37.4	44.4
Non-ESOL (N=37)	4.6	20.0	30.4	38.4	46.7

df = 72, $p > .05$

Follow-up: Writing. How did ESOL and non-ESOL children compare in their ability to write words after completing a Reading Recovery programme?

The retrospective nature of this study made it difficult to show the same change over time for the matched pairs in writing because schools were using different assessments. However, the Daniels and Diack spelling test was used for 30 (81 percent) matched pairs at the third checkpoint.

Table 7***BURT Scores Relative to Chronological Age for ESOL and Non-ESOL Children at 1, 2, and 3-Year Follow-Up***

		FU 1	FU 2	FU 3
Within 12 months and above	ESOL	23	18	11
	Non-ESOL	29	19	16
12 months or more below	ESOL	14	19	26
	Non-ESOL	8	18	21

Although this test was not normed for New Zealand conditions, and consequently data cannot be related to a New Zealand age equivalent, it is interesting to notice the similarity between ESOL and non-ESOL children's ability to spell words three years after completing Reading Recovery. Table 8 shows that the average raw score and the range *n* scores were almost identical for the two groups. The Daniels and Diack equivalent spelling ages for the two groups give the average spelling age for the ESOL group as 8.3 (CA 9.7), and for the non-ESOL group as 8.2 (CA 9.6).

Follow-up: Un-Matched ESOL Children. Although it was not possible to pair a further 22 ESOL children because of the incomplete follow-up data, it was possible to apply similar criteria to the data available.

Analysis of these data shows that the progress of ESOL children in this second category tended to follow a similar pattern to that of the children in the paired study in both reading and writing. For example, the data collected on 13 children at the second checkpoint, and on ten at the third, (six of whom were represented at both checkpoints), show that these ESOL children continued to make similar progress to the matched pairs in text reading after discontinuing.

All 13 children at Follow-Up 2, and nine out of ten children at Follow-Up 3 were reading within 12 months of or above their chronological age. One of the children who was reading within 12 months of his chronological age at the second checkpoint, a year later was reading two years below, despite having made some progress in that 12 month period. Pinnell et al. (1988) refer to children who score *at the low end and yet show the necessary evidence of effective reading strategies.*

Table 8***Lowest, Highest, and Average Spelling Score for ESOL and Non-ESOL Children at 3-Year Follow-Up***

		FU 3	Range
ESOL	(n=30)	28.9	16-40
Non-ESOL	(n=30)	28.2	16-38

Table 9***ESOL and Non-ESOL Children Grouped According to Burt Raw Score at Discontinuing***

Dis Score	Dis Av	FU 1 Av	FU 2 Av	FU 3 Av
0-18				
ESOL (n=13)				
CA	6.7	7.9	8.9	9.9
EAB	—	6.04 - 6.10	7.00-7.06	7.08-8.02
Score	15 (10-18)	26 (16-36)	34 (23-51)	42 (27-62)
Non-ESOL (n=12)				
CA	6.3	7.7	8.7	9.7
EAB	—	6.07-7.01	7.01-7.07	8.01-8.07
Score	16 (14-18)	29 (19-40)	35 (27-51)	47 (29-72)
19-20				
ESOL (n=9)				
CA	6.4	7.8	8.8	9.8
EAB	5.10-6.04	6.04-6.10	6.09-7.03	7.03-7.09
Score	20 (19-20)	26 (22-29)	31 (27-41)	37 (29-49)
Non-ESOL (n=8)				
CA	6.1	7.3	8.3	9.3
EAB	—	6.09-7.03	7.04-7.10	8.02-8.08
Score	19 (19-20)	31 (22-46)	38 (28-61)	48 (26-73)
21-22				
ESOL (n=3)				
CA	6.4	7.6	8.6	9.6
EAB	5.11-6.06	6.08-7.02	7.06-8.00	7.11-8.05
Score	21 (21-22)	30 (21-37)	40 (34-45)	45 (39-55)
Non-ESOL (n=8)				
CA	6.8	7.6	8.6	9.6
EAB	5.11-6.05	6.07-7.01	7.05-7.11	8.00-8.06
Score	21 (21-22)	29 (20-42)	39 (28-64)	46 (34-75)
23-30				
ESOL (n = 12)				
CA	6.5	7.6	8.6	9.6
EAB	6.04-6.10	7.02-7.08	8.00-8.06	8.06-9.00
Score	26 (23-30)	36 (27-50)	46 (31-68)	52 (39-75)
Non-ESOL (n=9)				
CA	6.6	7.7	8.7	9.7
EAB	6.02-6.08	6.11-7.05	7.05-7.11	8.01-8.07
Score	24 (23-27)	33 (27-38)	39 (26-50)	47 (33-66)

*EAB = Equivalent Age Band (Burt NZ Rev)

CA = Chronological Age.

Discussion

This study set out to answer the question of the suitability and long-term benefit of Reading Recovery for children who have English as their second language. The study confirms findings of previous longitudinal studies (Clay & Watson, 1982; Pinnell, DeFord, & Lyons, 1988) that children are successful in and continue to succeed after Reading Recovery without further assistance, and that these findings are applicable to ESOL children. ESOL and non-ESOL children demonstrated that they were able to continue to learn. The vast majority of ESOL and non-ESOL children exceeded programme expectations after discontinuing, especially on text reading.

All children in both groups were successful at reading words in text but some were less able to read and write words in isolation. This difference may be the artifact of different norming procedures. However, it may also be related to the Reading Recovery teaching (Tunmer, 1992), or to subsequent classroom instruction (Pinnell, et al., 1988), including possibly the amount of exposure to print after discontinuing (Stanovich, 1992, 1994; Juell, 1988).

Various writers have argued that phonological awareness or phonological sensitivity skills are important indicators of early reading acquisition (Clay, 1991; Stanovich, 1987, 1992; Tunmer & Chapman, 1991; Yopp, 1992). Tunmer (1992) argued that phonological awareness is the prime precursor of phonological recoding, which in turn is "primarily responsible for the development of context free word recognition ability," which in turn is "primarily responsible for the development of the ability to read connected text." If this is so, it appears that both groups of children surveyed in this current study developed the necessary skills for reading/writing acquisition whilst in a Reading Recovery programme.

It might be argued (Nicholson, 1986) that some children were lacking in phonological recoding skills after graduating from the Reading Recovery programme and that this might account for their subsequently lower scores in reading isolated words, compared with their success on text reading. Consequently, it may be for these children that continued progress in reading was due to their reliance on context cues. This cannot be discounted. However, if "reading connected text is the goal of reading instruction" (Tunmer, 1992), the question must be asked whether they knew sufficiently about how words work for them to make continued post-Reading Recovery progress on connected text. It appears that both ESOL and non-ESOL children were well able to achieve and maintain this goal.

Clay (1991) stresses that phonological information is only one of a number of key sources of information used by the reader of text, others being semantic, syntactic, and visual information. This is particularly interesting because it seems that the ESOL children in this study as well as their non-ESOL pairs were using semantic and syntactic cues to supplement their grapho-phonemic analysis of text.

In the *dual-process* model of mature reading as summarized by Henderson (1984) and discussed by Clay (1991), there are possibly two major routes by which mature readers analyze words. In the first, the reader takes a lexical route which enables them to search for the semantic, phonological, and orthographic identities of a word; and in the second uses spelling-sound translation rules without recourse to the lexicon. It may be that, after discontinuing, the ESOL and non-ESOL children in this study were well able to take the lexical route using all sources of information, but found the less rich spelling-sound translation route more difficult.

Perhaps it highlights yet again the vital importance of recognizing reading as a meaningful activity that forces the reader to draw on multiple sources of information in the process of reading continuous text (Clay, 1966, 1982, 1985, 1991; Edelsky, 1991; Gaffney & Anderson, 1991; Gibson & Levin, 1975; Goldenberg, 1991; Goodman & Golasch, 1980; Haber, 1978; Imlach, 1968; McNaughton, 1983; Smith, 1978; Williams & Clay, 1982).

This present study shows that although it might be appropriate to be more conservative on Burt scores at discontinuing and to bring children's analysis of isolated words to a level commensurate with their text reading age, there is no clear consistent relationship between word reading score at discontinuing and a child's subsequent ability to analyze words in isolation. However, there are indications that some children in both groups might have benefited from further class instruction on word analysis after discontinuing, at the multi-syllabic word level. This assessment agrees with Verhoeven's (1990) and Frederiksen and Kroll's (1976) findings. Such words start to occur at the 7.06-8.00 equivalent age band (Burt, NZ Rev, 1981). The average text reading age at which children in this study were discontinued was seven years.

Regarding the amount of exposure to print after discontinuing, Stanovich (1992, 1994) suggests that apart from the necessity of teaching children spelling-sound correspondences, exposure to print allows the *induction of spelling-sound correspondences* and the development of vocabulary. Other researchers have highlighted the importance of exposure to print as a key variable in the development of children's vocabularies (Hayes & Ahrens, 1988; McNaughton, 1981; Nagy & Anderson, 1984). It may be that reading words in isolation, as measured by the Burt Test, reflected children's control over vocabulary and may raise questions about the amount of reading done after leaving a Reading Recovery programme.

Another aspect to consider in this regard is that of the reciprocal nature of reading and writing. Stanovich (1992) also reported that groups of children and adult university students who were high in print exposure were significantly superior in spelling performance.

It is also interesting to speculate on the impact of the spelling performance of all children (including those who did not receive a Reading Recovery programme) of the emphasis in New Zealand school programmes in the 1980s on *process writing*. This latter trend in classroom instruction may have led to a general decrease in the teaching of spelling. It may be that the children in this study in particular, or together with other children, would benefit from further careful word work in the middle and upper classes. This would need further investigation.

On another matter, some researchers have argued for a *threshold* level of competence in either their first or subsequent language before children can benefit cognitively from bilingualism (Cummins, 1979; Cummins & Swain, 1986; Verhoeven, 1990). If this is valid, a limitation of the present retrospective study is that no formal measure of either group's control of language was taken. It may be that all the children (non-ESOL and ESOL) had sufficient control of English to enable them to respond appropriately to instruction despite teachers' frequently expressed beliefs to the contrary (Watson, 1987). On the other hand, it may be that the nature of the instruction facilitated language development in the context of reading and writing meaningful text (Edelsky, 1991). These questions need further study.

It is worth commenting on an aspect of Reading Recovery that has been well documented in the literature and highlighted by this study (Clay, 1979, 1985; Clay & Watson, 1982; Clay & Tuck, 1991; Pinnell, Fried, & Estice, 1990; Smith, 1986). It concerns the individual nature of every child's programme. Although every ESOL child with complete three-year follow-up data was carefully matched with a non-ESOL child, it was not possible to do this more closely than by reading level at discontinuing, and seldom with children from the same school. Analysis of other aspects of the children's entry, exit, and follow-up data show how individually different they were.

Previous research (Clay & Watson, 1982) had found that the rate of children's post Reading Recovery progress also varied, and this was born out in the present study. The authors in the 1982 study had hypothesized as to the factors likely to influence children's subsequent progress, including absenteeism, home and community factors, unsatisfactory instruction, and illness. Follow-up research in the Mana area (Smith, 1987, 1988) discussed in the Ofsted Report (1993) showed the factors involving subsequent progress. Keeping in mind that these children were the lowest achievers in reading and writing on entry to Reading Recovery, it might be reasonable to anticipate that they would be the most likely to be thrown by subsequent adverse circumstances. Robinson (1989) addressed the questions of "facilitative and inhibiting features in . . . school contexts" that might impact children's learning, and Pinnell et al. (1988) refer to "extraordinarily negative school environments" in relation to children's subsequent progress after Reading Recovery. Given the high success rate of ESOL and non-ESOL children during and post Reading Recovery delivery, it might be useful to identify those factors that enhance or inhibit continued success for these children.

Appendix 1

Reading Levels at Entry and Discontinuing of Pairs (Reading Recovery Levels Benchmarked Against the Ready to Read)

Year	Children		Entry		Discontinuing	
	ESOL	NON	ESOL	NON	ESOL	NON
(n = 8)	*SS	SM	0	0	19	19
	CS	RH	0	5	18	18
	*JR	WH	4	2	19	19
	ET	JTH	3	4	18	18
	AG	NS	4	5	21	21
	LT	NMc	1	4	21	21
	CT	SMc	4	1	24	24
1987 (n = 13)	*TF	TA	4	12	19	19
	*TT	KP	7	5	20	20
	RT	DA	4	2	19	19
	GE	JF	3	2	20	20
	JC	MO	1	1	15	16
	RE	NA	4	0	17	17
	JB	MF	4	4	20	20
	KT	LMc	2	2	19	20
	LM	PB	4	4	20	20
	*EF	AH	5	1	18	18
	MM	GT	2	1	19	19
	TT2	SB	5	5	19	19
	*WJ	MK	4	4	20	20
1988 (n = 16)	FU	KM	0	1	19	19
	MM2	JH	2	1	20	20
	SA	AB	3	4	18	18
	*TTu	CK	2	2	16	16
	AK	MB	3	3	21	21
	TS	TH	3	2	16	16
	PF	WG	0	1	17	17
	TTu2	LT	9	10	18	18
	*VY	JT	0	1	17	17
	FA	GB	0	0	19	19
	TF	MP	1	1	17	17
	LL	TKMc	3	1	18	18
	MF	DK	0	1	20	20
	MI	KH	3	4	18	18
	JK	HA	3	4	18	18
	PT	CJ	5	4	18	18

(*both children were at the same school) (n = 37) mean = 2.76 2.89 18.73 18.78. sd = 2.10 2.54 1.68 1.64
 ESOL $t = 35, 63, df = 72, p < .001$; Non-ESOL $t = 34, 76, df = 72, p < .001$ Statistically significant progress was made by both groups when measured by average book level completed.

Appendix 2

Burt (N.Z. Rev. 1981) Reading Score at Entry and Discontinuing of Pairs.

Year	Children		Entry		Discontinuing	
	ESOL	NON	ESOL	NON	ESOL	NON
1986 (n = 8)	AT	MA	0	4	18	18
	*SS	SM	2	2	20	24
	CS	RH	2	5	20	20
	*JR	WH	3	3	10	19
	ET	JTH	4	5	15	19
	AG	NS	6	5	28	14
	LT	NMc	7	8	28	23
	CT	SMc	12	5	30	21
1987 (n = 13)	*TF	TA	8	10	25	21
	*TT	KP	15	8	24	15
	RT	DA	7	5	15	24
	GE	JF	4	8	20	24
	JC	MO	3	0	21	22
	RE	NA	4	2	18	15
	JB	MF	1	7	20	19
	KT	LMc	4	1	19	21
	LM	PB	1	3	18	15
	*EF	AH	8	2	25	15
	MM	GT	3	2	18	25
	TT2	SB	10	6	24	19
	*WJ	MK	3	6	28	27
1988 (n = 16)	FU	KM	0	1	13	16
	MM2	JH	2	0	17	19
	SA	AB	9	3	25	18
	*TTu	CK	1	4	19	22
	AK	MB	6	5	17	23
	TS	TH	5	4	23	18
	PF	WG	0	2	16	20
	TTu2	LT	12	14	22	25
	*VY	JT	3	1	20	17
	FA	GB	5	0	23	21
	TF	MP	3	2	21	17
	LL	TKMc	2	0	18	16
	MF	DK	3	2	29	24
	MI	KH	0	7	20	21
	JK	HA	4	5	20	22
	PT	CJ	4	8	17	19

(*both children were at the same school)

Appendix 3

Writing Vocabulary Scores at Entry and Discontinuing of Pairs Year Children Entry Discontinuing

Year	Children		Entry		Discontinuing	
	ESOL	NON	ESOL	NON	ESOL	NON
1986 (n = 8)	AT	MA	1	12	41	62
	*SS	SM	4	4	40	39
	CS	RH	9	11	44	33
	*JR	WH	2	4	45	54
	ET	JTH	3	13	41	42
	AG	NS	11	9	46	61
	LT	NMc	13	13	55	37
	CT	SMc	15	11	52	52
1987 (n = 13)	*TF	TA	13	21	44	48
	*TT	KP	16	8	37	53
	RT	DA	8	6	42	43
	GE	JF	9	14	46	48
	JC	MO	6	3	42	40
	RE	NA	7	4	45	44
	JB	MF	4	13	50	58
	KT	LMc	8	4	45	52
	LM	PB	5	8	38	42
	*EF	AH	14	3	46	36
	MM	GT	5	3	41	66
	TT2	SB	22	15	45	49
*WJ	MK	17	19	56	59	
1988 (n = 16)	FU	KM	0	4	45	44
	MM2	JH	4	2	52	42
	SA	AB	22	10	42	46
	*TTu	CK	3	7	60	37
	AK	MB	8	13	56	52
	TS	TH	11	7	50	61
	PF	WG	1	2	42	41
	TTu2	LT	14	18	48	52
	*VY	JT	4	7	53	59
	FA	GB	6	2	62	54
	TF	MP	5	5	57	49
	LL	TKMc	9	2	62	50
	MF	DK	4	4	54	48
	MI	KH	3	13	34	54
	JK	HA	6	13	46	56
PT	CJ	10	22	44	50	

(*both children were at the same school)

Appendix 4

Reading Recovery Inservice Course Reading Book Scale

Reading Recovery Level	(Approximate Reading Age)	Indicated by new Ready to Read colour code
26		
25	8.5 - 9.0	
24		
23	8.0 - 8.5	
22		
21	7.5 - 8.0	Dark Yellow
20		
19	7.0 - 7.5	Purple
18		
17	6.5 - 7.0	Blue
16		
15	6.0 - 6.5	Orange
14		
13		Green
12		
11		
10		Dark Blue
9		
8		
7		Yellow
6		
5		
4		Red
3		
2		
1		Magenta
0		Dictated Text

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