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Te Tāhuhu o te Mātauranga Aotearoa

Annual Monitoring of Reading Recovery

The Data for 2007

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Executive Summary

This report presents data on state and state-integrated schools that offered Reading Recovery in 2007, and the students who received help from this intervention. In general, results for 2007 were consistent with the findings of previous annual monitoring reports. The key findings are as follows:

- In 2007, two-thirds (67%) of all state and state-integrated schools offered Reading Recovery (comparable to 65% in 2006 and 67% in 2005). As a result, Reading Recovery was accessible to 76 percent of the total six-year-old population (comparable to 76% in 2006 and 78% in 2005).
- Approximately one in seven (14%) six-year-old students attending state and state-integrated schools entered Reading Recovery in 2007 (comparable to 14% in 2006 and 15% in 2005). The total number of students in Reading Recovery has also remained fairly constant over the past few years (10,777 students in 2007; 10,757 students in 2006 and 11,054 students in 2005).
- Reading Recovery was more widely available in high decile schools but where offered, lower decile schools provided Reading Recovery to proportionately more students.
- Demographically, there were proportionately more boys, Māori and Pasifika students in Reading Recovery during 2007 than there were girls, Asian and NZ European students. Despite this, Māori and Pasifika students were less likely to have access (i.e. less likely to attend schools where Reading Recovery was offered) overall.
- More than half (58%) of all students in Reading Recovery successfully discontinued their series of lessons by the end of 2007. A further one-quarter (24%) of students were carried over to 2008 while almost one in ten (9%) were referred on for specialist help or long-term reading support.
- Girls, Asian and NZ European students, and those from high decile schools were more likely to have successfully discontinued their series of Reading Recovery lessons than boys, Māori and Pasifika students and those from lower decile schools (who were more likely to be referred on for further support). It is important to note however, that many students in these latter groups did in fact achieve the levels required to successfully discontinue their Reading Recovery lessons.
- In cases where students successfully discontinued their series of lessons, Māori and Pasifika students, and those from lower decile schools exhibited greater gains in reading and writing. These greater gains are associated with a tendency for these students to have lower scores upon entry.
- In cases where students were referred on, those from higher decile schools tended to have both higher entry and exit scores than those from lower decile schools. It should be noted that students from higher decile schools had attended more Reading Recovery sessions than those from lower deciles schools.

Introduction

Reading Recovery was designed by Dame Marie Clay, previously Professor of Education at The University of Auckland. It is an early literacy intervention which aims to reduce reading and writing delay by providing intensive and individual help to children who are falling behind¹ in reading and writing after one year at school.

As with previous years, all state and state-integrated schools could apply for funding from the Ministry of Education for Reading Recovery. This report presents information on participating six-year-olds from those schools that offered Reading Recovery during 2007.

Reading Recovery data has been monitored and reported on annually since 1984. This report is a continuation of that annual series. Until 2000, the Ministry of Education collected school-based summary data for reporting purposes. In 2001, individual student data were collected for the first time (including information regarding students' gender and ethnicity, entry and exit scores, and the number of lessons and weeks spent in Reading Recovery). This report is the product of the seventh year of individualised data collection.

¹ *In some schools, children regarded as "falling behind" are those who, at the age of six, come into the bottom 5, 10 or 15 percent of readers and writers in their peer group. In other schools, however, children seen to be "falling behind" are those in the bottom 20-25 percent of readers and writers. There may be as many as 30 percent of six-year-olds in a particular school in Reading Recovery, although this is rare.*

Method

The 2007 Reading Recovery data collection took place throughout the year, with schools able to submit their data either electronically or via paper survey forms. Note that as with previous years, schools were encouraged to submit their data electronically.

Schools submitted data via both individual student reports and overall school reports. Individual student reports, which were submitted for each student that took part in Reading Recovery, gathered information about the demographic characteristics of the student and their progress in the intervention. Each school also submitted an end-of-year school report which gathered information about the number of hours and teachers allocated to Reading Recovery for the year.

Schools were asked to submit their returns by 14 December 2007. Reading Recovery tutors and SiliconCoach (Reading Recovery database administrator) reminded and assisted schools to submit their data.

Through the electronic data collection system, Reading Recovery teachers could post information about students as soon as they exited the intervention. At the end of the year, when all individual student reports had been entered by the teacher(s), the principal was asked to confirm this information and, in addition, complete the end-of-year school report². Once this process was completed, Reading Recovery tutors were able to electronically check the data entered by teachers and/or principals. It should be noted that not all schools that submitted individual student reports subsequently confirmed these reports,³ or submitted their end-of-year school reports.

Schools opting to respond by paper returns were asked to submit their data to their Reading Recovery tutors for checking purposes, who then forwarded the forms to the Ministry of Education.

In 2007, the Ministry of Education received 10,739 individual student reports and, through the school reports, a further 38 students were identified as having participated in Reading Recovery⁴. Additionally, a total of 1,232 school reports were received, and a further 70 schools were identified as Reading Recovery schools as a result of student reports being submitted from these schools. Consequently, a total of 10,777 students and a total of 1,302 schools were involved in Reading Recovery during 2007.

² Note that some principals delegate the task of completing the school report and/or confirming the individual student reports to the Reading Recovery teacher or another senior staff member.

³ Of the 1,232 school reports that were received in 2007, 31 had not completed the confirmation process. Data from these reports have been included in the analyses.

⁴ These students were identified by eleven schools where the number of students reported to be in Reading Recovery on their school report was greater than the actual number of individual student reports received.

Schools and Students Involved in Reading Recovery during 2007

Schools and Students Involved in Reading Recovery Nationally and Regionally

At the end of 2007, a total of 1,456 individual teachers were reported to be teaching Reading Recovery at some point during the year. In total, 1,302 state and state-integrated schools with six-year-old students were involved in providing 446,804 hours of teaching, delivered to 10,777 students – just over 41 hours of teaching time per student on average. There was little change in the total number of students in Reading Recovery between 2007 (10,777 students), 2006 (10,757 students) and 2005 (11,054 students).

Overall, Reading Recovery was offered in two-thirds (67%) of all state and state-integrated schools with six-year-old students (Table 1a). This is similar to 65 percent recorded in 2006 and equivalent to 67 percent recorded in 2005.

The number of six-year-olds attending schools that offered Reading Recovery represented three-quarters (76%) of the total six-year-old population in New Zealand. This compares with 76 percent in 2006 and 78 percent recorded in 2005.

As shown in Table 1a (next page), the proportion of schools that offered Reading Recovery in 2007 varied from 47 percent in the Gisborne region to 92 percent in the Nelson region⁵, with implementation in the majority of regions falling within the range of 57 percent to 73 percent.

Compared with regional figures from the 2006 Annual Monitoring Report (see Appendix Table 1), the only notable *decrease* (i.e. of 5% or more) in the proportion of schools offering Reading Recovery was in the Tasman region (79% in 2006, 71% in 2007). In contrast, the proportion of schools that offered Reading Recovery *increased* (by 5% or more) in the Southland, Canterbury, Nelson and Taranaki regions.

⁵ Please note that care must be taken when interpreting these results due to low base numbers for these regions (Gisborne, n=47 and Nelson, n=13).

Table 1a: Schools with Reading Recovery by region in 2007

Local Body (Region)	Schools with Reading Recovery ^a		Total schools with six-year-olds ^b		Access to Reading Recovery ^c	
	N	6-year-olds on roll ^b	N	6-year-olds on roll	% of schools	% of 6-year-olds
Northland Region	70	1,732	123	2,311	56.9	74.9
Auckland Region	221	12,014	351	18,892	63.0	63.6
Waikato Region	169	4,578	252	5,710	67.1	80.2
Bay of Plenty Region	71	2,959	123	3,990	57.7	74.2
Gisborne Region	22	631	47	823	46.8	76.7
Hawkes Bay Region	61	1,797	99	2,263	61.6	79.4
Taranaki Region	55	1,357	77	1,530	71.4	88.7
Manawatu-Wanganui Region	89	2,233	163	3,131	54.6	71.3
Wellington Region	147	5,270	184	6,143	79.9	85.8
Tasman Region	20	574	28	631	71.4	91.0
Nelson Region	12	520	13	540	92.3	96.3
Marlborough Region	19	470	26	535	73.1	87.9
West Coast Region	19	362	32	413	59.4	87.7
Canterbury Region	193	6,089	236	6,610	81.8	92.1
Otago Region	85	1,810	122	2,270	69.7	79.7
Southland Region	49	1,077	73	1,264	67.1	85.2
Total	1,302	43,473	1,949	57,056	66.8	76.2

^a Where school reports are missing, data are obtained from a match between the institution numbers provided in the individual students' reports and data from Data Management Unit, Ministry of Education.

^b Source: Data Management Unit, Ministry of Education, E4/2:Annual Return of Primary Pupils as at 1 July 2007.

^c Care must be taken when interpreting results from regions with low base numbers (i.e. less than n=30) of schools with six-year-olds.

Table 1b: Schools with Reading Recovery by region – Māori students

Local Body (Region)	Schools with Māori students in Reading Recovery ^a		Total schools with six-year-old Māori students ^b		Access to Reading Recovery ^c	
	N	6-year-olds on roll ^b	N	6-year-olds on roll	% of schools	% of 6-year-olds
Northland Region	69	774	122	1,176	56.6	65.8
Auckland Region	204	1,837	322	3,279	63.4	56.0
Waikato Region	154	1,429	227	1,994	67.8	71.7
Bay of Plenty Region	69	1,073	119	1,743	58.0	61.6
Gisborne Region	21	352	45	529	46.7	66.5
Hawkes Bay Region	61	723	91	885	67.0	81.7
Taranaki Region	51	322	64	380	79.7	84.7
Manawatu-Wanganui Region	83	674	138	1,032	60.1	65.3
Wellington Region	137	1,051	168	1,311	81.5	80.2
Tasman Region	16	55	21	63	76.2	87.3
Nelson Region	12	78	13	83	92.3	94.0
Marlborough Region	17	73	22	81	77.3	90.1
West Coast Region	18	55	22	59	81.8	93.2
Canterbury Region	153	728	175	792	87.4	91.9
Otago Region	73	195	96	246	76.0	79.3
Southland Region	36	178	49	224	73.5	79.5
Total	1,174	9,597	1,694	13,877	69.3	69.2

^a Where school reports are missing, data are obtained from a match between the institution numbers provided in the individual students' reports and data from Data Management Unit, Ministry of Education.

^b Source: Data Management Unit, Ministry of Education, E4/2: Annual Return of Primary Pupils as at 1 July 2007.

^c Care must be taken when interpreting results from regions with low base numbers (i.e. less than n=30) of schools with six-year-olds.

As shown in Table 1b, the proportion of schools with Māori students that offered Reading Recovery ranged from 47 percent in Gisborne to 92 percent in Nelson, with the majority of regions falling within the range of 60 percent to 82 percent.

Table 1b also shows that, although many state and state-integrated schools with Māori students offered Reading Recovery in 2007 (69 percent), overall *access* to Reading Recovery for Māori six-year-olds was lower compared to the general population. That is, 69 percent of the total six-year-old Māori population attended schools where Reading Recovery was offered, compared to 76 percent for the total six-year-old population.

The proportion of six-year-old Māori students who had access to Reading Recovery was lowest in the Auckland region, despite this region having a high population of Māori children.

Table 1c: Schools with Reading Recovery by region – Pasifika students

Local Body (Region)	Schools with Pasifika students in Reading Recovery ^a		Total schools with six-year-old Pasifika students ^b		Access to Reading Recovery ^c	
	N	6-year-olds on roll ^b	N	6-year-olds on roll	% of schools	% of 6-year-olds
Northland Region	19	30	26	40	73.1	75.0
Auckland Region	193	2,775	290	4,220	66.6	65.8
Waikato Region	63	150	74	186	85.1	80.6
Bay of Plenty Region	31	70	37	83	83.8	84.3
Gisborne Region	7	19	8	20	87.5	95.0
Hawkes Bay Region	30	115	32	117	93.8	98.3
Taranaki Region	23	30	23	30	100.0	100.0
Manawatu-Wanganui Region	34	76	40	93	85.0	81.7
Wellington Region	109	655	124	703	87.9	93.2
Tasman Region	2	2	2	2	100.0	100.0
Nelson Region	8	10	8	10	100.0	100.0
Marlborough Region	6	10	6	10	100.0	100.0
West Coast Region	3	5	3	5	100.0	100.0
Canterbury Region	75	199	80	207	93.8	96.1
Otago Region	27	52	29	54	93.1	96.3
Southland Region	14	23	15	24	93.3	95.8
Total	644	4,221	797	5,804	80.8	72.7

^a Where school reports are missing, data are obtained from a match between the institution numbers provided in the individual students' reports and data from Data Management Unit, Ministry of Education.

^b Source: Data Management Unit, Ministry of Education, E4/2: Annual Return of Primary Pupils as at 1 July 2007.

^c Care must be taken when interpreting results from regions with low base numbers (i.e. less than n=30) of schools with six-year-olds.

As shown in Table 1c, the proportion of schools with Pasifika students that offered Reading Recovery was greater than 80 percent in many regions. It is important to note however, that these results must be analysed with caution as these regions had very small base numbers of Pasifika students.

Consistent with the analysis for Māori students above, Table 1c also shows that while many state and state-integrated schools with Pasifika students offered Reading Recovery in 2007 (81 percent), overall *access* to Reading Recovery for Pasifika six-year-olds was lower compared to the general population. That is, 73 percent of the total six-year-old Pasifika population attended schools where Reading Recovery was offered, compared to 76 percent for the total six-year-old population.

Also consistent with the analysis for Māori students, the proportion of six-year-old Pasifika students who had access to Reading Recovery was lowest in the Auckland region, despite this region having a high population of Pasifika children.

As a proportion of all six-year-olds in New Zealand state and state-integrated schools, 14 percent *entered* Reading Recovery in 2007 (Table 2). There has been little change in this figure over time (14% in 2006, 15% in 2005).

Compared with regional figures from 2006, the proportion of six-year-olds entering Reading Recovery in 2007 *increased* in the Southland (17% in 2006, 21% in 2007) and Tasman (16% in 2006, 20% in 2007) regions. Although the proportion of six-year-olds entering Reading Recovery in the West Coast region *decreased* from 32 percent in 2006 to 23 percent in 2007, this region continued to have the highest entry rate overall. The Auckland and Bay of Plenty regions had the lowest entry rate at approximately 11 percent.

Table 2: Six-year-old students who entered Reading Recovery by region^a

Local Body (Region)	Six year olds who <i>entered</i> Reading Recovery in 2007		Total six-year-old school population ^b
	N	% of total	N
Northland Region	360	15.6	2,311
Auckland Region	2,103	11.1	18,892
Waikato Region	830	14.5	5,710
Bay of Plenty Region	457	11.5	3,990
Gisborne Region	116	14.1	823
Hawkes Bay Region	391	17.3	2,263
Taranaki Region	227	14.8	1,530
Manawatu-Wanganui Region	440	14.1	3,131
Wellington Region	965	15.7	6,143
Tasman Region	126	20.0	631
Nelson Region	90	16.7	540
Marlborough Region	80	15.0	535
West Coast Region	95	23.0	413
Canterbury Region	930	14.1	6,610
Otago Region	424	18.7	2,270
Southland Region	269	21.3	1,264
Total	7,903	13.9	57,056

^a This table includes only those students who entered Reading Recovery in 2007. The total number of students involved in Reading Recovery cannot be compared to the total number of six-year-olds in the population as those students who were carried over from 2006 were age seven in 2007.

^b Source: Data Management Unit, Ministry of Education, E4/2: Annual Return of Primary Pupils as at 1 July 2007.

Table 3 shows the relationship between Reading Recovery schools and their decile⁶. Overall, proportionately fewer schools in lower deciles offered Reading Recovery compared to those in higher deciles. For example, 57 percent and 62 percent of decile 1 and 2 schools respectively offered Reading Recovery in 2007 compared to 72 percent and 69 percent of decile 9 and 10 schools. Despite this, the proportion of students *entering* Reading Recovery was greater for lower decile schools (e.g. 16% and 17% of students in decile 1 and decile 2 schools entered Reading Recovery in 2007, compared to 13% and 10% in decile 9 and 10 schools respectively). This trend has been observed in previous years⁷.

Across all deciles, the amount of time students spent in Reading Recovery ranged from 40 to 46 hours per student. There was no clear relationship between the number of hours spent in Reading Recovery and school decile.

Table 3: Reading Recovery by decile^a

Decile	Schools with Reading Recovery % ^b	Students who <i>entered</i> Reading Recovery % ^c	Time in Reading Recovery per Student (hours) ^d
1	57.1	15.8	43.7
2	61.7	16.5	39.5
3	58.5	12.7	44.2
4	75.8	18.5	40.1
5	66.5	14.0	45.2
6	67.2	13.6	44.0
7	68.8	13.3	42.4
8	70.9	13.7	42.5
9	72.2	13.3	40.8
10	69.2	9.8	45.6

^a Excludes schools with missing decile information.

^b The percentage of schools in Reading Recovery is calculated as the number of schools that offered Reading Recovery in each of deciles 1 to 10 divided by the total number of schools with six-year olds in that decile.

^c Excludes students for whom no individual student report was received.

^d The time in Reading Recovery per student is calculated as the total amount of Reading Recovery time reported by schools in each decile divided by the number of students in Reading Recovery in those schools. Therefore, students with missing school reports were excluded from this analysis.

⁶ A school's decile indicates the extent to which the school draws its students from low socio-economic communities. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities, whereas Decile 10 schools are the 10% of schools with the lowest proportion of these students. Five factors (household income, parents' occupations, household crowding, parents' educational qualifications, and parents receiving income support) are used in determining a school's socio-economic indicator and thus the school's decile. These factors are based on families with school age children within the catchment area of the school.

⁷ Unlike previous years, schools with missing end-of-year school reports were included in this analysis. Their decile information was obtained by doing a match with their corresponding student reports.

Gender and Ethnicity of Students in Reading Recovery

Table 4 shows the gender and primary ethnicity of students in Reading Recovery during 2007. Consistent with previous years, two-thirds (66%) were boys and one-third (34%) were girls.

Regardless of gender, Asian students (including Chinese, Indian, South East Asian and 'Other Asian') were *less* likely to be in Reading Recovery than students of other ethnicities. In contrast, Pasifika students (including Tokelauan, Tongan, Cook Island Māori, Samoan and 'Other Pacific Islands') were *more* likely to be in Reading Recovery than students of other ethnicities. As with previous years, Māori students were more likely to be in Reading Recovery than NZ European students.

It is interesting to consider the results from Table 4 in light of those presented in Tables 1a-c (pp 9-11). This comparison shows that although Māori and Pasifika students were more likely than Asian and NZ European students to be in Reading Recovery during 2007, six-year-olds from these ethnic groups were also less likely (compared to the total population of six-year-olds) to have access to Reading Recovery during the year.

This finding suggests that while many Māori and Pasifika students attend schools where Reading Recovery is not offered (compared to the total population), when these students do attend schools that offer Reading Recovery, they are more likely to be in Reading Recovery than students of other ethnicities.

Table 4: Ethnicity and gender of students in Reading Recovery^a

Ethnicity	Boys			Girls		
	Total six year old boys in population	In Reading Recovery		Total six year old girls in population	In Reading Recovery	
	N	n	%	N	n	%
Māori	7,160	1,979	27.6	6,827	1,122	16.4
Tokelauan	70	21	30.0	75	18	24.0
Fijian	105	24	22.9	113	15	13.3
Niuean	169	37	21.9	163	27	16.6
Tongan	703	241	34.3	673	167	24.8
Cook Island Māori	443	131	29.6	438	71	16.2
Samoan	1,407	433	30.8	1,285	239	18.6
Other Pacific Islands	112	31	27.7	103	18	17.5
South East Asian	349	51	14.6	331	32	9.7
Indian	808	101	12.5	739	63	8.5
Chinese	710	60	8.5	691	31	4.5
Other Asian	455	48	10.5	431	34	7.9
Other	593	124	20.9	578	68	11.8
Other European	1,037	204	19.7	947	106	11.2
NZ European	15,680	3,559	22.7	15,009	1,646	11.0
Unspecified	77	27	35.1	62	11	17.7
Total	29,878	7,071	23.7	28,465	3,668	12.9

^a Schools' enrolment forms usually allow for students to self identify or be identified by their parents/guardians as belonging to more than one ethnic group. However, for the purposes of the Reading Recovery return students are reported in one ethnic group only. The Reading Recovery return follows the same system of priority recording as used by Statistics New Zealand in the 1996 census.

Students' Progress in Reading Recovery

Students Entering Reading Recovery

As mentioned previously, a total of 10,777 students took part in Reading Recovery during 2007. Of these students, almost three-quarters (73%) entered Reading Recovery for the first time in 2007. The remaining students had either been carried over from 2006 (23%), or transferred from another school (3%).

Table 5: How students entered Reading Recovery

Students' entry in Reading Recovery in 2007	N	%
Carried over from 2006 from same school	2,482	23.0
Transferred from another school ^a	279	2.6
Entered Reading Recovery for the first time in 2007	7,903	73.3
Missing data ^b	113	1.0
Total	10,777	100.0

^a Some double-counting will have occurred here, as these students are also likely to be grouped with those in Reading Recovery in their previous school, either as being carried over from 2006 or as entering Reading Recovery during 2007.

^b Includes the 38 students that were identified as having participated in Reading Recovery from their school report, but had no corresponding student report.

As shown in Table 6, more than half (58%) of all students in Reading Recovery during 2007 successfully discontinued their series of lessons. A further 24 percent had responded to Reading Recovery and were to be carried over to next year, with the expectation of completing in 2008⁸.

Students in Reading Recovery and their Outcomes

Table 6: Students' outcomes in Reading Recovery

Type of outcome	Students in Reading Recovery	
	N	%
Child successfully discontinued lessons	6,291	58.4
Child responding and to be carried over into 2008	2,571	23.9
Child referred for specialist help or long-term reading support	972	9.0
Child responding but not able to be continued	183	1.7
Child left the school before completion ^a	609	5.7
Missing data	151	1.4
Total	10,777	100.0

^a Some double-counting is likely here, as some of these students may have joined Reading Recovery at their new school.

⁸ However, it can be seen in from Table 7 that approximately three-quarters of students carried over from the previous year, go on to successfully discontinue their series of Reading Recovery lessons.

Students Exiting Reading Recovery, their Outcomes by Entry Status

Table 7 below presents the outcomes for students who exited Reading Recovery in 2007, according to how they entered the intervention. Consistent with the findings presented in previous reports, the majority (80%) of students that *entered* Reading Recovery in 2007 successfully discontinued their series of lessons (compared to 80% in 2006 and 87% in 2005).

Students that had been carried over from 2006 and those that had transferred from another school were *more* likely to be referred on for specialist help (16% and 17% respectively) than those who entered Reading Recovery for the first time in 2007 (10%). However it is important to note that despite this, the majority of students that had been carried over from 2006 (76%) and had been transferred from another school (69%) did in fact achieve the levels required to successfully discontinue their series of lessons.

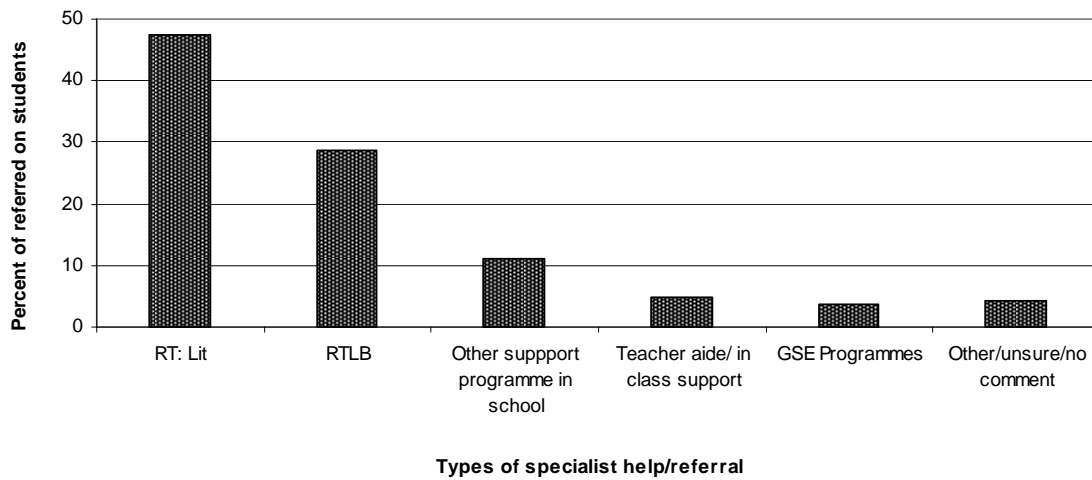
Table 7: Exiting students' Reading Recovery outcome by entry status^a

Type of Outcome	Carried over from 2006		Transferred from another school		Entered in 2007	
	N	%	N	%	N	%
Child successfully discontinued Reading Recovery lessons	1,877	76.1	165	69.0	4,249	79.5
Child referred on for specialist help or long-term reading support	397	16.1	41	17.2	534	10.0
Child responding but not able to be continued	23	0.9	7	2.9	153	2.9
Child left the school before completion ^b	171	6.9	26	10.9	412	7.7
Total	2,468	100.0	239	100.0	5,348	100.0

^a This analysis excludes students who were carried over into 2008. The percentages also exclude any missing data on entry and/or outcome.

^b Some double-counting is likely here, as some of these students may have joined Reading Recovery at their new school.

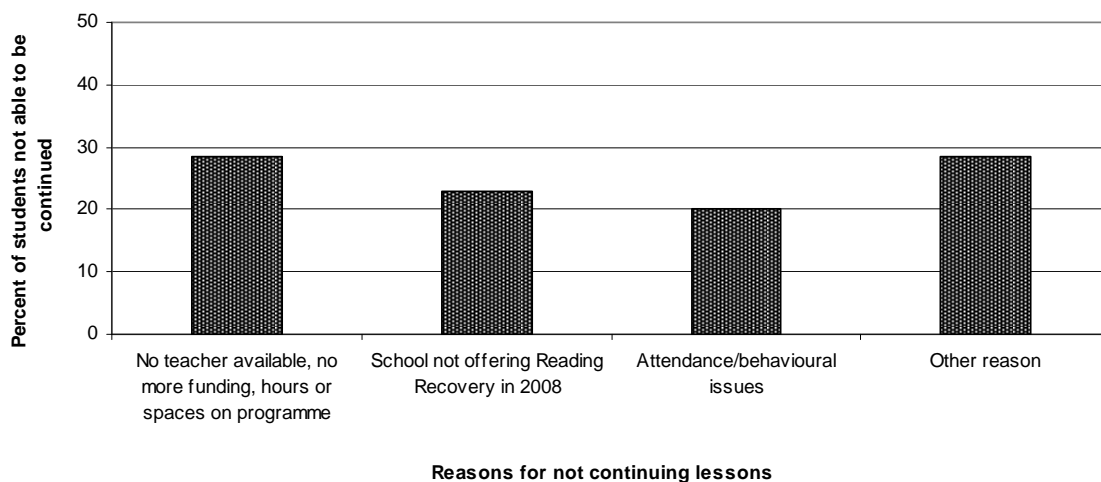
Figure 1: Type of further support for students referred on for specialist help or long-term reading support, as reported by schools^a



^a This figure is based on n=972 students who were referred on for specialist help or long term reading support in 2007.

Almost 1 in 10 students (9%) in Reading Recovery during 2007 were referred on for specialist help or long-term reading support. As reported by schools, the majority of these students were referred on to either Resource Teachers: Literacy or Resource Teachers: Learning and Behaviour (see Figure 1 above). Slightly more than 1 in 10 referred on students were transferred to other support programmes within the school, such as Rainbow Reading, reading clinics and/or small group sessions.

Figure 2: Why discontinued students did not complete Reading Recovery^a



^a This figure is based on the n=183 students who were responding to Reading Recovery but were not able to be continued.

A small proportion (2%) of students were responding to Reading Recovery but were unable to continue with the intervention. As shown in Figure 2, just over a quarter of these students had their lessons discontinued due to a lack of resources (e.g. there were no longer any Reading Recovery teachers available or no more funding, hours or spaces available). Additionally, almost a quarter were unable to continue as their school was no longer offering Reading Recovery while one in five were taken off Reading Recovery by the school because of behavioural or attendance issues.

Students Exiting Reading Recovery, their Outcomes by Gender, Ethnicity and Decile

Gender

Tables 8, 9 and 10 below, present the outcomes for students who exited Reading Recovery in 2007, by gender, ethnicity and their school decile rating. Table 8 shows that as a percentage of those who left Reading Recovery in 2007, girls (82%) were more likely than boys (76%), to have successfully discontinued their series of lessons. In contrast, boys were more likely to be referred on for specialist help or long-term reading support (14%, compared to 9% for girls).

Table 8: Exiting students' Reading Recovery outcomes by gender^a

Type of Outcome	Boys % (n=5,284)	Girls % (n=2,771)	Total % (n=8,055)
Child successfully discontinued lessons	76.3	81.5	78.1
Child referred for specialist help or long-term reading support	13.6	9.1	12.1
Child responding but not able to be continued	2.3	2.2	2.3
Child left the school before completion ^b	7.7	7.2	7.6
Total	100.0	100.0	100.0

^a This analysis excludes students who were carried over to 2008. The percentages also exclude any missing data on gender and/or outcome.

^b Some double-counting is likely here, as some of these students may have engaged in Reading Recovery at their new school.

Ethnicity

In Table 9, students have been grouped into the following five ethnic groups: Māori, Pasifika, Asian, NZ European and 'Other'. The results presented in Table 9 show that of those students who exited Reading Recovery in 2007, Asian (82%) and NZ European (83%) students were *more* likely to have successfully discontinued their series of lessons than Māori (71%) and Pasifika (73%) students. In contrast, Māori and Pasifika students were *more* likely than Asian and NZ European students to be referred on for specialist help or long-term reading support, or to have left the school before their series of lessons could be discontinued.

Table 9: Exiting students' Reading Recovery outcome by ethnicity^a

Type of Outcome	Māori % (n=2,311)	Pasifika % (n=1,073)	Asian % (n=321)	NZ European % (n=3,946)	Other % (n=385)
Child successfully discontinued lessons	71.1	72.5	82.2	82.6	85.7
Child referred for specialist help or long-term reading support	14.6	15.5	8.7	10.5	6.0
Child responding but not able to be continued	2.9	2.4	2.2	1.9	2.3
Child left the school before completion ^b	11.5	9.6	6.9	4.9	6.0
Total	100.0	100.0	100.0	100.0	100.0

^a This analysis excludes students who were carried over into 2008. The percentages also exclude any missing data on ethnicity and/or outcome.

^b Some double-counting is likely here, as some of these students may have engaged in Reading Recovery at their new school.

Decile

As shown in Table 10, students from higher decile schools were *more* likely to have successfully discontinued their series of lessons than those from lower decile schools (e.g. 86% of students from decile 10 schools successfully discontinued their series of lessons, compared to 68% from decile 1 schools).

Students from lower decile schools were *more* likely to be referred on for specialist help (e.g. 17% for decile 1 schools, compared to 8% for decile 10 schools) and to have left the school before completing their series of lessons (e.g. 12% for decile 1 schools compared to 4% for decile 10 schools).

Table 10: Exiting students' Reading Recovery outcome by decile^a

Decile	Successfully discontinued		'Referred on' for specialist support		Child responding but not able to be continued		Child left school before completion		Total
	N	%	N	%	N	%	N	%	N
1	658	67.9	165	17.0	33	3.4	113	11.7	969
2	622	72.0	130	15.0	18	2.1	94	10.9	864
3	510	73.4	104	15.0	24	3.5	57	8.2	695
4	662	76.5	110	12.7	19	2.2	74	8.6	865
5	644	79.3	92	11.3	15	1.8	61	7.5	812
6	509	79.9	65	10.2	18	2.8	45	7.1	637
7	670	81.8	83	10.1	20	2.4	46	5.6	819
8	568	82.8	75	10.9	7	1.0	36	5.2	686
9	684	83.8	80	9.8	7	0.9	45	5.5	816
10	760	85.7	68	7.7	21	2.4	38	4.3	887

^a This analysis excludes students who were carried over into 2008. The percentages also exclude any missing data on decile and/or outcome.

Students who Successfully Discontinued Reading Recovery, by Region

Table 11 below shows those students who successfully discontinued their series of lessons in 2007, as a proportion of students who exited Reading Recovery in 2007, by region.

The proportion of exiting students who had successfully discontinued their Reading Recovery lessons ranged from 71 percent in the Northland and Marlborough regions to 83 percent in the Otago region. Compared to 2006, the percentage of successfully discontinued students increased by 6 percent in the Otago and Southland regions but decreased by 4 percent in the Auckland and Gisborne regions.

Table 11: Proportion of exited students who successfully discontinued Reading Recovery by region

Local Body (Region)	Six year olds who successfully discontinued Reading Recovery in 2007		Total number of students who left Reading Recovery in 2007 ^a
	N	% of total	N
Northland Region	266	71.1	374
Auckland Region	1,577	74.6	2,113
Waikato Region	665	79.5	836
Bay of Plenty Region	377	78.9	478
Gisborne Region	96	78.7	122
Hawkes Bay Region	323	80.5	401
Taranaki Region	196	80.7	243
Manawatu-Wanganui Region	369	77.8	474
Wellington Region	829	81.6	1,016
Tasman Region	93	82.3	113
Nelson Region	66	75.0	88
Marlborough Region	65	70.7	92
West Coast Region	76	74.5	102
Canterbury Region	742	79.8	930
Otago Region	344	82.7	416
Southland Region	207	80.5	257
Total	6,291	78.1	8,055

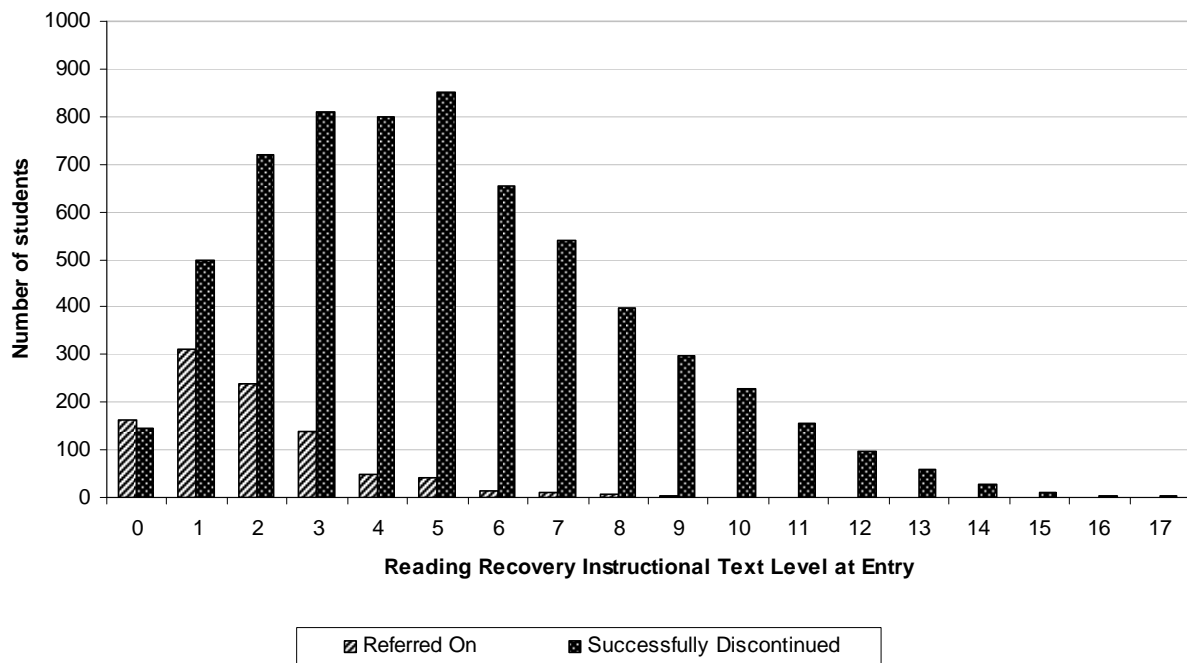
^a Excludes students with missing outcome information.

Entry Scores for Successfully Discontinued and Referred On Students

Students involved with Reading Recovery during 2007 were assessed on both reading (Instructional Text Level and Burt Word Reading Test) and writing (Clay Writing Vocabulary Task) measures.

Figure 3 below, presents the Instructional Text Level entry scores for successfully discontinued students, relative to those who were referred on. This figure demonstrates that students who were referred on for specialist help tended to have lower scores at entry. It is important to note however, that many students with low scores upon entry did have their series of lessons successfully discontinued. A similar pattern of results was observed for the Burt Word Reading Test and the Writing Vocabulary Task (Clay) (see Appendix Figures 2 and 3).

Figure 3: Reading Recovery Instructional Text Level scores at entry



The Mean Number of Reading Recovery Sessions and Calendar Weeks for Successfully Discontinued and Referred On Students

Table 12 below shows by decile, the average number of half-hour sessions and the average number of calendar weeks that were attended by students who were successfully discontinued and students who were referred on for specialist or long-term reading support.

On average, students who were referred on for further support spent *more* time in Reading Recovery than those whose series of lessons were successfully discontinued. That is, referred on students spent an average of 23 weeks (87.4 lessons) in Reading Recovery, while successfully discontinued students spent an average of 19 weeks (76.8 lessons).

Of students whose series of lessons were successfully discontinued, those from lower decile schools spent slightly *more* time in Reading Recovery than students from higher decile schools. For example, students in decile 1 schools had an average of 79 half hour sessions over 21 weeks in Reading Recovery, compared to 75 half hour sessions over 18 weeks for students in decile 10 schools.

In cases where students were referred on for specialist help or long-term reading support, those in higher decile schools attended considerably *more* half hour sessions than those in lower decile schools. There was no clear pattern in the number of weeks these students spent in Reading Recovery by decile.

Table 12: Mean sessions and calendar weeks in Reading Recovery for successfully discontinued and referred on students by decile

Decile ^a	Child successfully discontinued Reading Recovery			Child referred for specialist help or long-term reading support		
	N	Mean Number of 30 Minute Sessions	Mean Number of Calendar Weeks	N	Mean Number of 30 Minute Sessions	Mean Number of Calendar Weeks
1	658	78.7	20.8	165	79.8	22.9
2	622	80.2	20.7	130	83.3	22.2
3	510	80.4	20.2	104	84.5	21.8
4	662	77.4	19.5	110	88.0	23.0
5	644	75.2	19.1	92	90.8	23.0
6	509	77.4	19.4	65	86.6	22.4
7	670	75.4	18.6	83	91.4	23.8
8	568	73.4	18.6	75	91.9	23.0
9	684	75.7	18.8	80	95.8	24.1
10	760	74.8	18.2	68	93.5	23.4
Total	6,287	76.8	19.3	972	87.4	22.9

^a Excludes students with missing decile information.

Time in Reading Recovery for Successfully Discontinued Students, by Gender and Ethnicity

Table 13 shows the mean number of half-hour sessions and calendar weeks for students who successfully discontinued Reading Recovery in 2007 by gender and (grouped) ethnicity.

On average, boys attended slightly more sessions than girls. In addition, Māori and Pasifika students had slightly more sessions and spent longer in Reading Recovery than Asian and NZ European students, although it should be noted that these differences are very small.

Table 13: Mean sessions and calendar weeks in Reading Recovery for successfully discontinued students by gender and ethnicity

Ethnicity ^a	Mean number of sessions		Mean number of calendar weeks	
	Boys	Girls	Boys	Girls
Māori	79.3	77.5	20.5	19.9
Pasifika	81.5	75.5	21.0	20.0
Asian	77.4	70.5	18.9	17.8
Other	74.9	68.8	18.6	17.4
NZ European	77.3	72.8	19.1	18.1
Total	78.2	74.2	19.6	18.8

^a Excludes students of 'unknown' ethnicity and those with missing ethnicity information.

Students' Learning Gains

Students' Gains in Reading and Writing by Gender and Ethnicity for Successfully Discontinued Students

Table 14 below shows students' gains in all three measures mentioned above, for each gender and ethnic group. Overall, there were no differences by gender. This has been a consistent finding in previous reports.

Pasifika students and, to a lesser extent, Māori students who were successfully discontinued from Reading Recovery exhibited higher gains in all three measures compared to NZ European students. Please note that caution must be taken when interpreting these results as Pasifika and Māori students had lower entry scores on all three measures compared to NZ European students and, as a result, recorded greater gains⁹.

Table 14: Gains in reading and writing for successfully discontinued students by ethnicity and gender^a

Ethnic Groups ^b	Gain in Reading Recovery Instructional Text Level		Gain in Burt Word Reading Test (NZ Version)		Gain in Writing Vocabulary Task (Clay)	
	Boys	Girls	Boys	Girls	Boys	Girls
Māori	13.3	13.3	17.9	17.7	36.2	37.5
Pasifika	13.9	14.0	19.0	18.4	38.6	40.0
Asian	13.6	12.9	17.7	16.0	37.9	35.9
Other	13.6	12.8	17.7	16.3	36.1	32.8
NZ European	12.6	12.4	16.3	15.2	33.7	34.2
Total	13.0	12.9	17.2	16.5	35.2	35.9

^a Gain is calculated as the difference between the level/score at initial entry and when discontinued, divided by the number of students in that ethnic group.

^b Excludes students of 'unknown' ethnicity and those with missing ethnicity and/or gender information.

⁹ Note that students successfully discontinue their series of Reading Recovery lessons when they reach the 'average band' for reading levels in their classroom/school cohort. This has a ceiling effect on exit scores for all successfully completed students.

Entry and Exit Scores for Successfully Discontinued and Referred On Students, by Decile

Tables 15 and 16 show the average entry and exit scores for successfully discontinued and referred on students, according to school decile. A comparison between these tables shows that across all deciles and measures, successfully discontinued students had, on average, higher entry and exit scores compared to referred on students.

Additionally, as shown in Table 15, successfully discontinued students in lower decile schools had lower entry scores, on average, in all tests compared to those in higher decile schools. Exit scores for successfully discontinued students were fairly consistent (although students in lower decile schools tended to have lower exit scores in the Instructional Text Level and Burt Word Reading tests). This consistency is expected as students who had not reached the average band would not have been discontinued.

Table 15: Mean entry and exit scores for successfully discontinued students by decile

Decile ^a	Reading Recovery Instructional Text Level		Raw Score on Burt Word Reading test		Raw Score on Writing Vocabulary (Clay)	
	In	Out	In	Out	In	Out
1	3.8	17.6	8.2	27.4	15.9	55.4
2	4.2	17.8	9.0	27.5	16.8	54.6
3	4.7	17.6	10.1	27.3	19.2	55.3
4	5.0	17.9	10.6	27.6	20.4	55.6
5	5.1	17.9	10.7	27.4	20.4	55.0
6	5.5	18.1	11.9	28.3	22.1	56.6
7	5.4	18.2	11.9	27.9	21.6	56.1
8	5.5	18.3	11.9	28.1	21.2	55.3
9	5.7	18.4	12.2	28.4	22.0	57.2
10	5.7	18.6	12.7	28.5	22.6	56.0

^a Excludes students with missing decile information.

Unlike successfully discontinued students, referred on students from lower decile schools tended to have *both* lower entry and exit scores than students from higher decile schools (Table 16). This trend was observed across all three measures. It should be noted that referred on students from low decile schools also spent less time on average, in Reading Recovery, compared to referred on students from high decile schools (see Table 12).

Table 16: Mean entry and exit scores for referred on students by decile

Decile ^a	Reading Recovery Instructional Text Level		Raw Score on Burt Word Reading test		Raw Score on Writing Vocabulary (Clay)	
	In	Out	In	Out	In	Out
1	1.5	9.3	2.6	12.5	5.9	24.3
2	1.8	10.2	3.4	14.7	6.9	27.9
3	2.0	10.2	3.8	15.0	8.0	28.4
4	1.9	10.1	3.9	13.9	8.2	29.1
5	1.7	10.5	3.8	14.4	7.7	30.3
6	2.1	11.1	5.0	16.5	8.9	32.0
7	1.8	10.6	4.0	15.1	8.9	30.2
8	2.0	10.8	3.7	15.9	6.8	29.6
9	2.4	12.2	4.6	17.7	9.3	32.8
10	2.2	11.4	5.3	16.9	9.3	30.6

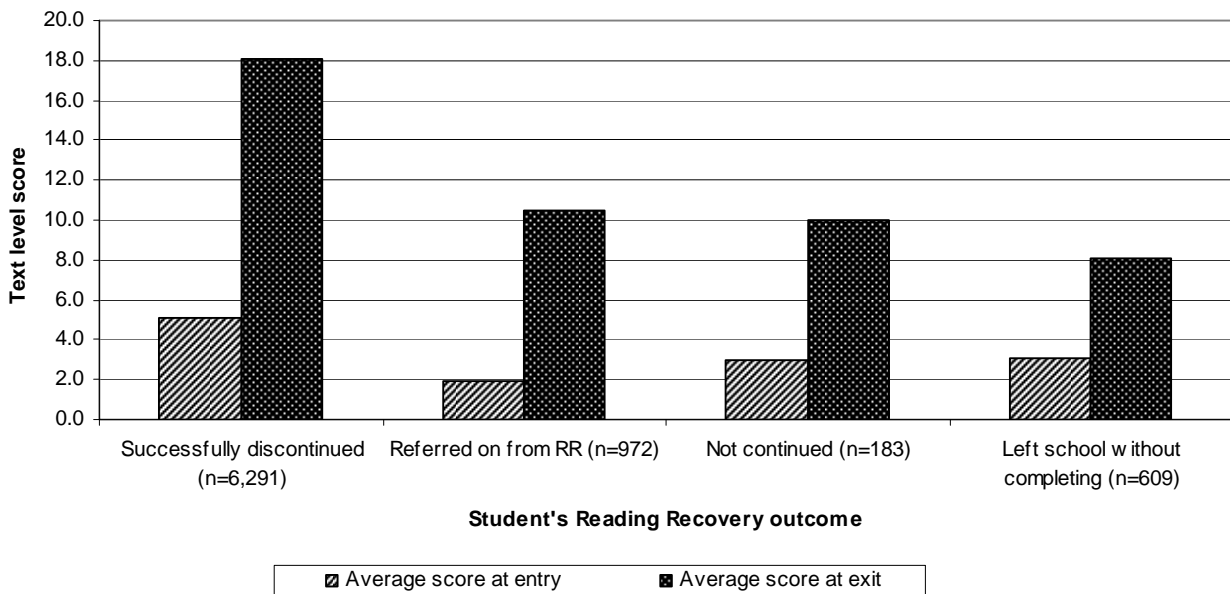
^a Excludes students with missing decile information.

Instructional Text Level Entry and Exit Scores for Students Exiting Reading Recovery

In 2007, for the first time, entry and exit Instructional Text Level scores were recorded for all students regardless of their Reading Recovery outcome. As mentioned above, students exiting Reading Recovery could have either successfully discontinued their series of lessons, been referred on for further specialist support, been unable to continue their series of lessons (see Figure 2 for reasons) or have left the school before their lessons could be discontinued.

Figure 4 shows that successfully discontinued students entered and, as expected, exited Reading Recovery with higher scores on average than students of all other outcomes. Figure 4 also highlights the average gains made by other students, especially those that were referred on (an average increase of 8.6 points). Note that students who were to be carried over to 2008 have not been included as they cannot be considered to have 'left' Reading Recovery.

Figure 4: Exiting students' average Instructional Text Level entry and exit scores by Reading Recovery outcome



Conclusion

The findings contained within the 2007 Annual Reading Recovery Monitoring report are consistent with many of the trends established since the mid 1990s. In 2007, two-thirds of state and state-integrated schools offered Reading Recovery and the intervention was accessible to 76 percent of the total population of six-year-olds. The overall proportion of six-year-olds that entered Reading Recovery in 2007 was 14 percent.

While Māori students were slightly less likely to be in schools where Reading Recovery was on offer, they were more likely to be in Reading Recovery in those schools where Reading Recovery was offered. Compared to the general population of six-year-olds, Māori students were proportionately slightly more likely to be in Reading Recovery. This was also the case for Pasifika students.

In terms of student outcomes, more than half (58%) of all Reading Recovery students in 2007 successfully discontinued their series of lessons, one-quarter (24%) were carried over to 2008 and 9 percent were referred on for further support. Students more likely to successfully complete their series of lessons included girls, Asian and NZ European students and those from high decile schools. Boys, Māori and Pasifika students and those from low decile schools were more likely to be referred on for further support.

For further information about Reading Recovery, contact the National Reading Recovery Centre, Faculty of Education, The University of Auckland, Private Bag 92601, Symonds Street, Auckland or visit the Reading Recovery website www.readingrecovery.ac.nz

Appendices

Appendix Table 1: Schools with Reading Recovery by region in 2006

Local Body (Region)	Schools with Reading Recovery ^a		Total schools with six-year-olds ^b		Access to Reading Recovery	
	N	6 year old on roll ^b	N	6 year old on roll	Schools %	6 year old %
Northland Region	71	1,767	123	2,415	57.7	73.2
Auckland Region	224	12,496	351	19,261	63.8	64.9
Waikato Region	172	4,677	252	5,736	68.3	81.5
Bay of Plenty Region	72	3,083	123	4,102	58.5	75.2
Gisborne Region	21	580	48	757	43.8	76.6
Hawkes Bay Region	59	1,843	101	2,384	58.4	77.3
Taranaki Region	45	1,212	80	1,513	56.3	80.1
Manawatu-Wanganui Region	93	2,363	172	3,199	54.1	73.9
Wellington Region	149	5,285	184	6,135	81.0	86.1
Tasman Region	22	595	28	651	78.6	91.4
Nelson Region	11	482	13	513	84.6	94.0
Marlborough Region	19	466	27	518	70.4	90.0
West Coast Region	19	319	33	366	57.6	87.2
Canterbury Region	178	5,992	238	6,632	74.8	90.3
Otago Region	83	1,724	125	2,215	66.4	77.8
Southland Region	46	973	75	1,289	61.3	75.5
Total	1,284	43,857	1,973	57,686	65.1	76.0

^a Where school reports are missing, data are obtained from a match between the institution numbers provided in the individual students' reports and data from Data Management Unit, Ministry of Education

^b Source: Data Management Unit, Ministry of Education, E4/2:Annual Return of Primary Pupils as at 1 July 2006.

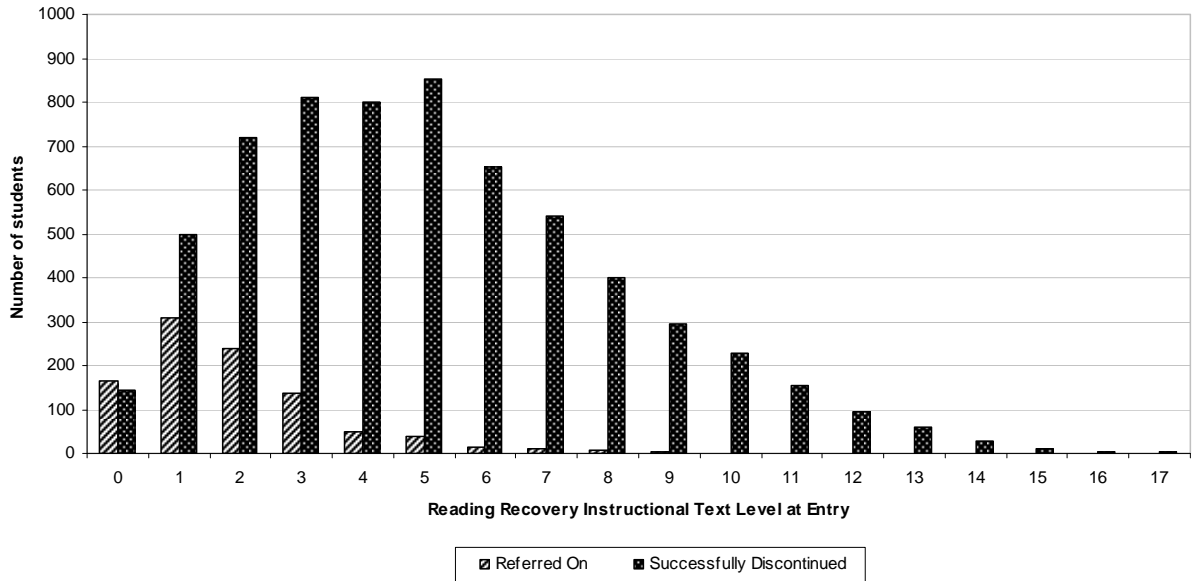
Appendix Table 2: Students who entered Reading Recovery by region in 2006^a

Local Body (Region)	Six year olds who <i>entered</i> Reading Recovery in 2006		Total six-year-old school population ^b
	N	% of total	N
Northland Region	340	14.1	2,415
Auckland Region	2,044	10.6	19,261
Waikato Region	894	15.6	5,736
Bay of Plenty Region	442	10.8	4,102
Gisborne Region	119	15.7	757
Hawkes Bay Region	408	17.1	2,384
Taranaki Region	230	15.2	1,513
Manawatu-Wanganui Region	465	14.5	3,199
Wellington Region	994	16.2	6,135
Tasman Region	104	16.0	651
Nelson Region	84	16.4	513
Marlborough Region	81	15.6	518
West Coast Region	118	32.2	366
Canterbury Region	931	14.0	6,632
Otago Region	400	18.1	2,215
Southland Region	222	17.2	1,289
Total	7,876	13.7	57,686

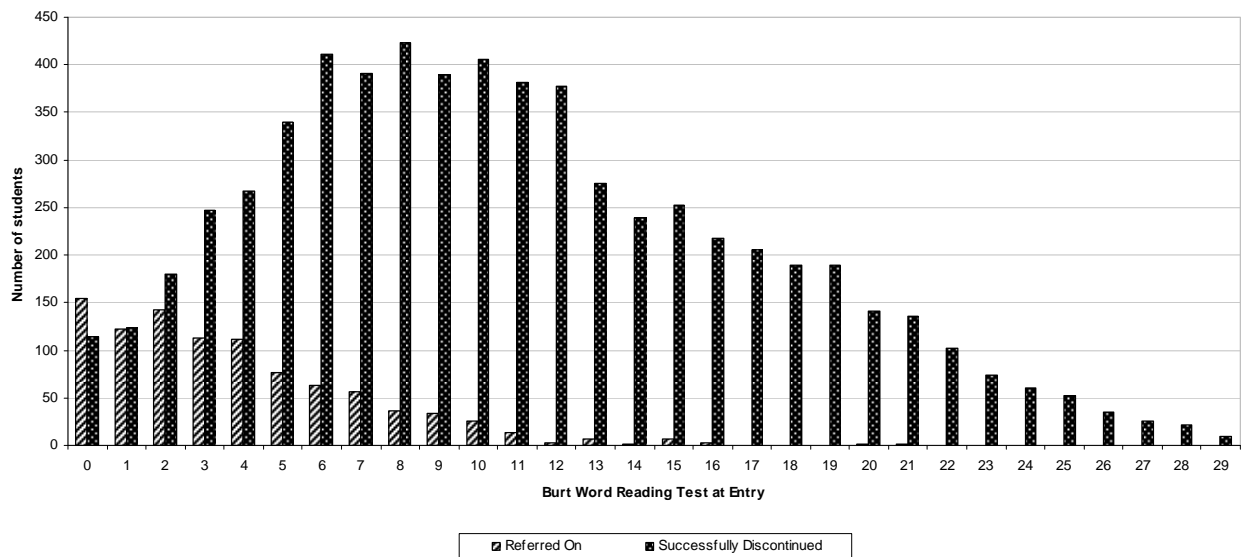
^a This table includes only those students who entered Reading Recovery in 2006, rather than the total number involved in Reading Recovery.

^b Source: Data Management Unit, Ministry of Education, E4/2:Annual Return of Primary Pupils as at 1 July 2006.

Appendix Figure 1: Instructional Text Level scores at entry in 2007



Appendix Figure 2: Burt Word Reading Test at entry in 2007



Appendix Figure 3: Clay Writing Vocabulary Task at entry in 2007

