



**MINISTRY OF EDUCATION**

*Te Tāhuhu o te Mātauranga*

# Annual Monitoring of Reading Recovery: The Data for 2002

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Research Division

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*This report presents the latest available data on the number of schools and students who participate in Reading Recovery over the course of a year, and reports on the broad outcomes for students. In general, present results repeat the trends evident in previous annual Reading Recovery monitoring exercises.*

*The overall pattern of progress for students who entered Reading Recovery in 2002 remained the same as that recorded in earlier monitoring exercises, with approximately 59% of students successfully completing Reading Recovery within the year and a further 24% judged to be responding well and expected to complete their series of individual lessons in the 2003 school year.*

*The slight decline in the absolute number of children entering Reading Recovery continued from previous years and is now showing a slight but steady decline in the proportion of six-year-olds entering Reading Recovery (17% in 1999, 16% in 2000 and 2001 and 15% in 2002). The proportion of schools operating Reading Recovery has similarly declined slightly over this period (71% in 1999, 69% in 2000 and 2001 and 68% in 2002).*

*Data suggest that Reading Recovery was more widely available in high decile schools than low decile schools. When available, there were more students and students had more time in Reading Recovery in low decile schools. Students entering Reading Recovery in high decile schools had slightly higher literacy achievement scores than those in low decile schools, but the difference was small in comparison with their overall gains.*



## Introduction

Reading Recovery was designed by Dame Marie Clay, previously Professor of Education at the University of Auckland. It is an early intervention which aims to reduce reading failure by providing intensive and individual help to any child who is falling behind<sup>1</sup> in reading and writing after one year at school.

In 2002, as in previous years, Reading Recovery was available to state (including state-integrated) primary and composite schools. In addition, individual and school returns for 2002 were received from 11 private schools and one health camp that also implemented Reading Recovery. Given that Reading Recovery primarily operates in state primary schools, this article presents information on participating six-year-olds from state and state-integrated schools only.

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 had collected school based summary data for reporting purposes. In 2001, individual student data was collected for the first time to report on Reading Recovery. This report is the product of the second year of individualised data collection. Furthermore, during 2002, the Ministry piloted an online data collection<sup>2</sup> for Reading Recovery in the Otago-Southland region using the same questionnaires as the paper returns. This report is based on data collected from both online and paper returns.

After the successful implementation of the pilot online data collection in 2002, the Ministry is strongly encouraging the use of the online database for the Reading Recovery data collection from 2003 onwards. The online database is currently being further developed.

## Schools and Students Involved in Reading Recovery in 2002

### Schools and Students Involved in Reading Recovery Nationally and Regionally

At the end of 2002, a total of 1,499 individual teachers were reported to have taught Reading Recovery at some point during that year. In total 1,417 state and state-integrated schools were involved providing almost 455,630 hours of teaching, delivered to 11,565 students, almost 40 hours of teaching time per student.

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<sup>1</sup>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' and therefore eligible for Reading Recovery may be those from the bottom 20–25 percent of readers and writers. (Sometimes, there may be as many as 30 percent of six-year-olds in a particular school enrolled in Reading Recovery, although this is rare).

<sup>2</sup> See [www.readingrecoverydatacollection.minedu.govt.nz](http://www.readingrecoverydatacollection.minedu.govt.nz)

**TABLE 1: Schools with Reading Recovery in 2002, by region<sup>a</sup>**

Local Body (Region) <sup>c</sup>	Schools with Reading Recovery		Total schools with six-year-olds		Access to Reading Recovery	
	N	6 year olds on roll <sup>b</sup>	N	6 year olds on roll	Schools %	Six year olds %
Northland Region	77	1,653	130	2,297	59.2	72.0
Auckland Region	236	12,994	345	17,913	68.4	72.5
Waikato Region	191	4,436	269	5,585	71.0	79.4
Bay of Plenty Region	69	2,269	123	3,913	56.1	58.0
Gisborne Region	17	473	50	775	34.0	61.0
Hawkes Bay Region	64	1,872	113	2,341	56.6	80.0
Taranaki Region	67	1,301	99	1,474	67.7	88.3
Manawatu-Wanganui Region	102	2,374	184	3,258	55.4	72.9
Wellington Region	159	5,274	194	5,882	82.0	89.7
Tasman Region	20	503	25	570	80.0	88.2
Nelson Region	13	534	15	540	86.7	98.9
Marlborough Region	22	507	28	523	78.6	96.9
West Coast Region	21	339	40	424	52.5	80.0
Canterbury Region	211	5,817	256	6,198	82.4	93.9
Otago Region	89	1,718	133	2,173	66.9	79.1
Southland Region	59	1,095	86	1,334	68.6	82.1
<b>Total</b>	<b>1,417</b>	<b>43,159</b>	<b>2,090</b>	<b>55,200</b>	<b>67.8</b>	<b>78.2</b>

<sup>a</sup> Excludes the Correspondence School, private schools, health camps, special schools.

<sup>b</sup> Source: Data Management Unit, Ministry of Education, E4/2: Annual Return of Primary Pupils as at 1 July 2002. (To estimate the number of students who turned six during the year, five- and six-year-old totals were added together and then divided by two.)

<sup>c</sup> Refer to footnote 2.

Table 1 shows the Reading Recovery schools in 2002 by region<sup>3</sup>. Reading Recovery was implemented in 68% of all state and state-integrated primary and composite schools with six-year-olds in New Zealand. These schools accounted for 78% of all six-year-olds in New Zealand, down slightly from 80% in 2001. The percentage of schools that had access to Reading Recovery in 2002 in various regions was generally lower in comparison to 2001.

As shown in Table 1, Reading Recovery implementation varied from 87% of schools in the Nelson region to 34% in the Gisborne region. Comparisons with the corresponding Table 1 of the 2001 Annual Monitoring Report (see Appendix Table 1) reveal a few interesting differences, although some of these are slight. Students' access to Reading Recovery increased in the Gisborne, Hawkes Bay, Taranaki, Nelson, Marlborough, Canterbury, and Southland regions and reduced in the Northland, Waikato, Bay of Plenty, Manawatu-Wanganui, Wellington, Tasman and Otago regions. Schools' access to Reading Recovery generally followed a similar change pattern from 2001 to 2002 as the students' access but with a few exceptions. For instance, schools in the Taranaki, Marlborough and Southland regions experienced a decrease in access to Reading Recovery from 2001 to 2002 contrary to their trends in students' access.

<sup>3</sup>Note that in previous reports, Reading Recovery schools were presented by education district. In this report, schools have been classified by region or Local Body (Region) as defined by the Education Institution Profile Codebook dated September 2002 of the Ministry of Education. Since the Education Institution Profile Codebook's classification of education district is now somewhat different from the previous year, the opportunity was taken to change to Local Body (Region) for consistency between comparisons in future reporting. Tables 1 and 2 of the 2001 Annual Monitoring Report have been reproduced as Appendix Tables 1 and 2 according to Local Body (Region) to enable a comparison with 2002.

Table 2 shows that 15% of six-year-olds in state and state-integrated primary and composite schools entered Reading Recovery in 2002, similar to the proportion in 2001<sup>4</sup> (see Appendix Table 2). Across the regions, there was in general a slight decline in the percentage of six-year olds entering Reading Recovery in 2002 compared to 2001. Exceptions occurred, with slight increases in the Northland, Gisborne and Tasman regions.

**TABLE 2: Six-year-old students who entered Reading Recovery in 2002, by region<sup>a</sup>**

Local Body (Region)	Six year olds who entered Reading Recovery in 2002 <sup>b</sup>		Total six-year-old school population
	N	% of total	N
Northland Region	458	19.9	2,297
Auckland Region	2,151	12.0	17,913
Waikato Region	843	15.1	5,585
Bay of Plenty Region	461	11.8	3,913
Gisborne Region	113	14.6	775
Hawkes Bay Region	431	18.4	2,341
Taranaki Region	264	17.9	1,474
Manawatu-Wanganui Region	546	16.8	3,258
Wellington Region	1,105	18.8	5,882
Tasman Region	128	22.5	570
Nelson Region	95	17.6	540
Marlborough Region	78	14.9	523
West Coast Region	87	20.5	424
Canterbury Region	980	15.8	6,198
Otago Region	438	20.2	2,173
Southland Region	290	21.7	1,334
<b>Total</b>	<b>8,468</b>	<b>15.3</b>	<b>55,200</b>

<sup>a</sup> Excludes the Correspondence School, private schools, health camps, special schools.

<sup>b</sup> This table is the same format used for presenting the 1994 to 2001 Reading Recovery data but differs from the equivalent table included in reports prior to 1994, in that it now only gives the numbers of students who entered Reading Recovery in the relevant year (in this case, 2002), rather than the total number involved in Reading Recovery. (The change was made because it became evident that the previous format was confusing and led to misinterpretation of the data and double counting.) However, if the number of students carried over from 2001 and the number of students who transferred from other schools were also included, the total number of students involved in Reading Recovery in 2002 would be 11,565 students (21 percent of the total six-year-old state school population in New Zealand in 2002).

Table 3 depicts the relationship between Reading Recovery schools and their decile<sup>5</sup> rating. High decile schools were more likely to operate Reading Recovery, but implemented it for proportionally fewer students and, on average, for slightly fewer hours per student. Fewer students entered Reading Recovery in high decile school (15% of students in decile 10 schools compared to 24% of students in

<sup>4</sup>Table 2 from the 2001 Annual Monitoring Report has been reproduced according to the Local Body (Region) to enable comparison with Table 2 of this report.

<sup>5</sup>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. Six factors are used in determining a school's socio-economic indicator. Five of these (household income, parents' occupations, household crowding, parents' educational qualifications, and parents receiving income support) are based on families with school age children within the catchment area of the school. This information is combined with the sixth factor, school ethnicity data (the proportion of Māori and Pasifika students, and, from 2003, refugee students receiving ESOL support) to determine the school's socio-economic indicator and thus the school's decile.

decile 1 schools). The time students had in Reading Recovery in 2002 was, on average, slightly greater in low decile schools than high decile schools. These results are similar to the results for 2001.

**TABLE 3: Reading Recovery by decile**

Decile	Schools in decile with Reading Recovery %	Students who entered Reading Recovery <sup>a</sup> %	Time in Reading Recovery per Student (hours) <sup>b</sup>
1	54.7	23.6	41.3
2	57.5	26.4	42.6
3	65.9	23.8	40.9
4	66.1	22.6	39.6
5	64.2	20.1	37.9
6	64.4	20.1	38.4
7	60.9	19.6	39.1
8	67.7	18.3	38.3
9	68.0	17.0	39.7
10	74.5	15.4	38.9

<sup>a</sup> The percentage of six year olds in schools who entered Reading Recovery in 2002.

<sup>b</sup> The total amount of Reading Recovery time reported by schools in a particular decile divided by the total number of children in Reading Recovery in those schools.

### Gender of Students Enrolled in Reading Recovery

As in previous years, two-thirds of the students in Reading Recovery in 2002 were boys. In the 2002 cohort, 27% of six-year-old boys and 14% of six-year-old girls were in Reading Recovery (see Table 4 below). These percentages are similar to those found in the 2001 data.

### Ethnicity and Gender of Students Enrolled in Reading Recovery

Table 4 also shows the gender and primary ethnicity of students enrolled in Reading Recovery in 2002 (see footnote b to Table 4). The trend of the data is similar to the previous year. In general, Asian boys and girls were less likely to be in Reading Recovery than boys and girls of other ethnic groups<sup>6</sup>. Māori, Pasifika (except for Niuean boys and girls, and Fijian girls) and 'Other European' boys and girls were more likely to be in Reading Recovery than NZ European boys and girls.

<sup>6</sup> The exceptions were Niuean and Fijian girls. Note, however, that the numbers of children in these groups were very small and the results should therefore be treated with caution.

**TABLE 4: Ethnicity and gender of students enrolled in Reading Recovery in 2002** <sup>a,b,c</sup>

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	6,675	2,148	32.2	6,238	1,224	19.6
Tokelauan	56	25	44.6	66	14	21.2
Fijian	80	44	55.0	82	8	9.8
Niuean	140	32	22.9	143	11	7.7
Tongan	518	201	38.8	510	106	20.8
Cook Island Maori	458	127	27.7	400	58	14.5
Samoan	1,273	401	31.5	1,221	213	17.4
Other Pacific Islands	104	26	25.0	98	13	13.3
South East Asian	259	45	17.4	246	14	5.7
Indian	568	86	15.1	540	56	10.4
Chinese	549	52	9.5	523	34	6.5
Other Asian	379	40	10.6	369	18	4.9
Other	333	96	28.8	368	59	16.0
Other European	487	151	31.0	448	63	14.1
NZ European	16,421	4,084	24.9	15,508	1,872	12.1
Unspecified	75	92		65	57	
<b>Total</b>	<b>28,375</b>	<b>7,650</b>	<b>27.0</b>	<b>26,825</b>	<b>3,820</b>	<b>14.2</b>

<sup>a</sup> Excludes students enrolled in the Correspondence School, private schools, health camps, and special schools.

<sup>b</sup> 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. For example, a child who has identified with the groups 'NZ Māori' and 'Tongan' will be reported in the group 'NZ Māori'.

<sup>c</sup> Totals in this table do not add up to the total number of students in Reading Recovery in 2002 (N=11,565) given in footnote b of Table 2 due to gender information missing for 95 students.

**FIGURE 1: Ethnicity and Gender of Students in Reading Recovery over time**

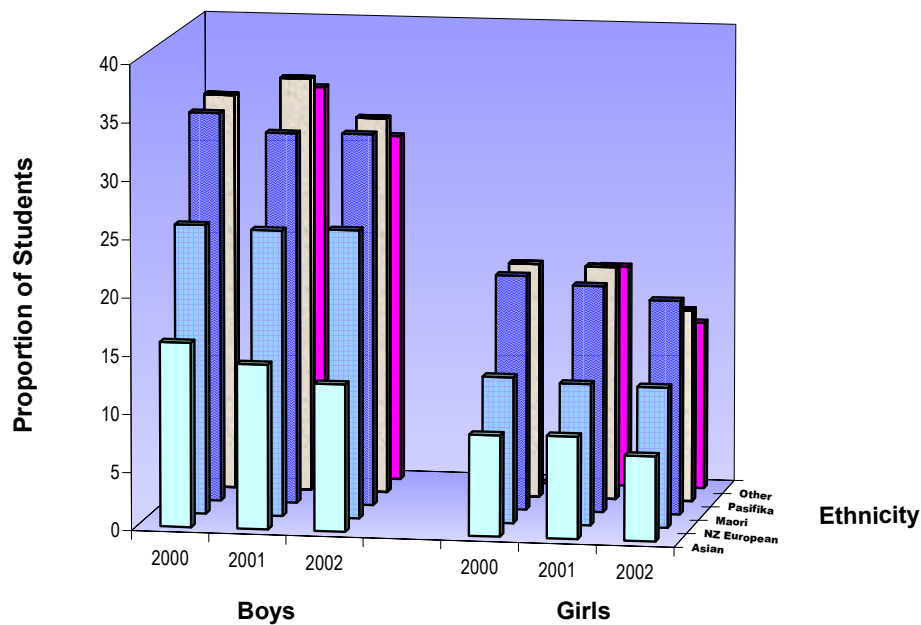


Figure 1 below shows a time series analysis of the last three years of Reading Recovery data. The graph enables comparison of the proportion of students in Reading Recovery across gender and ethnic groups over the last three years of data collection. The 14 ethnic groups identified in the returns have been grouped for clarity into five groupings (Māori, Pasifika, Asian, NZ European and ‘Other’).

The left-hand and right-hand sidebars represent boys and girls respectively. Figure 1 shows a decreasing trend in the proportion of Māori, Asian and ‘Other’<sup>7</sup> students enrolled in Reading Recovery irrespective of their gender while the trend has remained more or less constant for NZ European boys and girls in the last three years.

## Students’ Progress in Reading Recovery

### Students Entering Reading Recovery in 2002

During 2002, an estimated<sup>8</sup> 11,565 students took part in Reading Recovery in state and state-integrated schools (down very slightly in absolute terms from 11,893 in 2001). Most of these (74%) entered Reading Recovery for the first time in 2002, the rest being carried over from previous years or from other schools. These figures show very little change from 2001.

<sup>7</sup>As a result of a slightly different clustering of the 2000 data for the ‘Other’ group, this has not been included in Figure 1.

<sup>8</sup> See footnote b of Table 5.

**TABLE 5: How students entered Reading Recovery in 2002<sup>a</sup>**

Students' entry in Reading Recovery in 2002	N	%
Carried over from 2001 from same school	2,526	21.8
Transferred from another school <sup>b</sup>	392	3.4
Entered Reading Recovery for the first time this year	8,543	73.9
Missing data	104	0.9
<b>Total</b>	<b>11,565</b>	<b>100.0</b>

<sup>a</sup> Excludes students enrolled in the Correspondence School, private schools, health camps, and special schools.

<sup>b</sup> Some double-counting will have occurred here, as most of these students would also be grouped with those in Reading Recovery in their previous school, either as being carried over from 2001 or as entering Reading Recovery during 2002.

### Students in Reading Recovery in 2002 and Their Outcomes

**TABLE 6: Students' progress in Reading Recovery in 2002<sup>a</sup>**

Type of outcome	Students in Reading Recovery	
	N	%
Child successfully completed Reading Recovery ('discontinued')	6,808	58.9
Child responding and to be carried over into 2003	2,721	23.5
Child referred for specialist help or long-term reading support	1,065	9.2
Child responding but not able to be continued	256	2.2
Child left the school before completion <sup>b</sup>	630	5.4
Missing data	85	0.7
<b>Total</b>	<b>11,565</b>	<b>100.0</b>

<sup>a</sup> Excludes students enrolled in the Correspondence School, private schools, health camps, and special schools.

<sup>b</sup> Some double-counting is likely here, as some of these students may have completed Reading Recovery at their new school.

Table 6 shows the progress of students. The data shows a similar pattern to 2001. Of the children in Reading Recovery, 59% successfully completed in 2002, and 24% were carried over to the next year (2003), with the expectation of successfully completing Reading Recovery. An estimate of the number of students who, upon entering Reading Recovery, successfully completed their individualised lessons (either within the year they entered or the following year, and in the same school or in another school) can also be obtained. While the nature of the statistics collected requires an estimation<sup>9</sup>, the resulting estimate indicates that 84% of the children who left Reading Recovery in 2002 did so after completing it successfully.

It is worth noting that while 2,526 students were **actually** carried over from the year 2001, the year 2001 returns specified that 2,944 children were **expected** to be carried over into 2002 - a discrepancy of 418 children. Similarly, 392 students transferred into Reading Recovery from another school, while 630 left Reading Recovery due to transferring into another school, a discrepancy of 238 students. These discrepancies are consistent with those in previous years' returns given the decline in the number of schools operating Reading Recovery in 2002.

<sup>9</sup> To obtain this estimate, the number of students who left the school before completing Reading Recovery, and the number for whom an outcome was missing was — based on the assumption that the outcomes for these students would be the same as for other students in Reading Recovery — proportionally split into the other possible outcomes. The number of students who were reported to be responding positively and were to be carried over into 2003 was then subtracted from the total number of students participating in Reading Recovery during 2002. Finally, the proportions of students falling into each outcome category were calculated. It should be noted that some students might have moved more than once during the year.

A unique student identifier for each Reading Recovery student has been used since 2001 in an attempt to clarify such discrepancies. It has now been possible to match the 2001 and 2002 data to track students who transfer from one school to another. Out of the 2,944 Reading Recovery students **expected** to be carried over to 2002, the match could track 2,189 (74%) students in Reading Recovery in 2002. The use of the unique student identifier has enabled the Ministry to locate the child's new school (at least at the time when the student and the school returns were completed for 2002). Several reasons may explain why the unique student identifier did not pick up all the 2,526 students who were **actually** carried over from 2001. For example, the transferring student will not have appeared in the Reading Recovery roll if Reading Recovery did not operate in his/her new school or it may be possible that the child was not recognised as having reading difficulty compared to other children in the rest of the classroom in the new school. As teachers become more familiar with the use of the unique student identifier and with the use of the online database (which has validation checks to ensure that the unique student identifier is correctly recorded), it is expected that discrepancies such as these will reduce.

### **Gender**

Tables 8 and 9 show the children's outcomes from Reading Recovery by gender and ethnicity, respectively. Table 8 shows that boys and girls were almost equally likely to have successfully completed Reading Recovery in 2002 or to be carried over to another year. Girls were less likely to be 'referred on' for specialist or long-term reading support. Boys in Reading Recovery were marginally less likely to leave school before completion. Note that there is very little difference by gender in the total success rate, (the percentage of children who successfully completed Reading Recovery plus the children who are responding and carried over with every expectation of a successful outcome) at 82% (boys) and 84% (girls).

**TABLE 7: Child's outcome by gender**

Type of outcome	Boys %	Girls %
Child successfully completed Reading Recovery	58.9	60.1
Child responding and continuing next year (2003)	23.4	24.3
Child referred for specialist help or long-term reading support	10.4	7.0
Child responding but not able to be continued	2.1	2.4
Child left the school before completion <sup>a</sup>	5.1	6.2

<sup>a</sup> Some double-counting is likely here, as some of these students may have completed Reading Recovery at their new school.

Table 9 shows the children's outcome according to their ethnicity. The 14 ethnic groups identified in the returns have been grouped into Māori, Pasifika, Asian, NZ European and 'Other'. Māori are more likely than other children to leave the school before completing Reading Recovery. Asian and NZ European (66% and 63% respectively) students were more likely to have successfully completed Reading Recovery than Māori and Pasifika students (54% and 57% respectively). Asian students were least likely to be 'referred on' for specialist help or long-term reading support, to be responding but not able to be continued or to have left the school before completion of their lessons. Total success rate (see definition above), including those responding and continuing next year (2003), ranged from 78% (Māori) to 91% (Asian).

**Ethnicity**

**TABLE 8: Child's outcome by ethnicity**

Type of outcome	Māori %	Pasifika %	Asian %	NZ European %	Other %
Child successfully completed Reading Recovery	54.0	56.6	65.6	62.6	62.8
Child responding and continuing next year	24.3	25.0	25.1	22.8	23.7
Child referred for specialist help or long-term reading support	10.9	10.6	4.9	8.5	8.6
Child responding but not able to be continued	2.7	2.4	0.6	2.0	1.3
Child left the school before completion <sup>a</sup>	8.0	5.4	3.8	4.1	3.5

<sup>a</sup> Some double-counting is likely here, as some of these students may have completed Reading Recovery at their new school.

**Students Leaving Reading Recovery in 2002**

**Students Leaving Reading Recovery in 2002 and Their Outcomes**

**TABLE 9: Students leaving Reading Recovery in 2002 and their outcomes<sup>a</sup>**

Type of outcome	Carried over from 2001		Transferred from another school		Entered in 2002	
	N	%	N	%	N	%
Child successfully completed Reading Recovery	1,948	77.4	234	70.3	4,607	78.3
Child 'referred on' for specialist help or long-term reading support	409	16.2	48	14.4	605	10.3
Child responding but not able to be continued	28	1.1	17	5.1	211	3.6
Child left the school before completion <sup>b</sup>	133	5.3	34	10.2	459	7.8
<b>Total</b>	<b>2,518</b>		<b>333</b>		<b>5,882</b>	

<sup>a</sup> Excludes students enrolled in the Correspondence School, private schools, health camps, and special schools. Excludes 26 students for whom no information was given on how they entered Reading Recovery in 2002.

<sup>b</sup> Some double-counting is likely here, as some of these students may have completed Reading Recovery at their new school.

Table 7 shows the outcomes of students who exited in 2002 according to how they entered Reading Recovery. The data follows the same overall pattern as previous years, with students carried over from the previous year being the more likely than the other students to be 'referred on' for specialist help. The 2002 data displays few significant percentage changes compared to 2001 for those students who had transferred from another school. A smaller proportion (70% compared to 78% in 2001) of students, who had transferred from another school had successfully completed Reading Recovery in 2002. Also, in 2002, those students who had transferred from another school were more likely to have been 'referred on' for specialist help or long-term reading support than they were in 2001 (14% compared to 11% in 2001).

**Students Leaving Reading Recovery in 2002 by Decile**

Table 10 shows the outcomes of those students who exited in 2002 according to the decile rating of their Reading Recovery school.

**TABLE 10: Students leaving Reading Recovery in 2002 by decile**

Decile	Successful completion, i.e. 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	815	71.7	162	14.3	44	3.9	115	10.1	1,136
2	703	73.8	134	14.1	40	4.2	76	8.0	953
3	693	74.8	122	13.2	34	3.7	78	8.4	927
4	748	75.6	149	15.1	32	3.2	61	6.2	990
5	584	78.5	77	10.3	15	2.0	68	9.1	744
6	589	77.6	75	9.9	32	4.2	63	8.3	759
7	629	80.7	85	10.9	16	2.1	49	6.3	779
8	620	79.2	94	12.0	26	3.3	43	5.5	783
9	608	87.5	56	8.1	5	0.7	26	3.7	695
10	768	84.9	100	11.0	11	1.2	26	2.9	905

<sup>a</sup> Totals do not match with Table 6 earlier as few returns had missing information on the school of the students at the time of response.

When the outcomes of student categories by decile are examined some trends are evident. The percentage of students successfully completing Reading Recovery ('discontinued') in 2002, increases by decile, from 72% in decile 1 schools to a high of 85% in decile 10 schools. Note that this analysis does not include children carried over to 2002. As would be expected, the increasing percentage of 'discontinued' students by decile is matched by a steady decline in the percentage of students having other outcomes. A child in a decile 1 school is more likely to be 'referred on' to a specialist programme than a child in a decile 10 school (14% and 11% respectively) and almost three times as likely to be unable to continue Reading Recovery due to leaving the school in question or for some other reason.

Table 11 shows the students who successfully completed their individualised lessons in 2002 as a proportion of those who exited Reading Recovery in 2002 (i.e. excluding those children who were carried over to 2003)<sup>10</sup>.

<sup>10</sup>Table 11 has been reproduced as Appendix Table 3 based on the 2001 data to enable comparison with this report. Note that this data was not presented in a table in the 2001 Annual Monitoring report.

**TABLE 11: Proportion of students who successfully completed Reading Recovery and exited in 2002, by region<sup>a</sup>**

Local Body (Region) <sup>b</sup>	Students who had successfully completed Reading Recovery in 2002		Total number of students who left Reading Recovery in 2002
	N	% of total <sup>c</sup>	N
Northland Region	321	72.6	442
Auckland Region	1,654	75.9	2,178
Waikato Region	682	72.4	942
Bay of Plenty Region	344	76.1	452
Gisborne Region	83	75.5	110
Hawkes Bay Region	373	82.2	454
Taranaki Region	222	76.6	290
Manawatu-Wanganui Region	418	79.5	526
Wellington Region	990	85.9	1,153
Tasman Region	95	77.9	122
Nelson Region	68	74.7	91
Marlborough Region	56	74.7	75
West Coast Region	72	77.4	93
Canterbury Region	794	79.8	995
Otago Region	356	80.5	442
Southland Region	232	74.8	310

<sup>a</sup> Excludes the Correspondence School, private schools, health camps, special schools.

<sup>b</sup> Region refers to Local Body (Region).

<sup>c</sup> These were calculated by dividing the number of students in the region who successfully completed Reading Recovery ('discontinued') in 2002 by the total number of students in the region who exited in 2002 (i.e. excluding those children who were carried over to 2003).

<sup>d</sup> Totals do not add up with Table 6 earlier as few returns did not have any information about the school of the students.

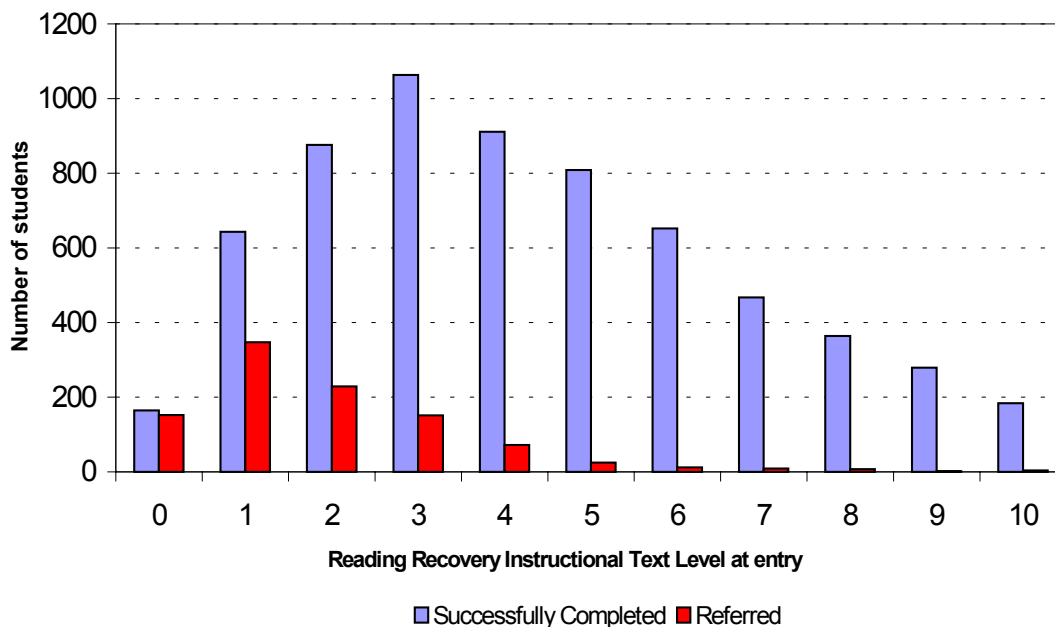
The proportion of students who successfully completed Reading Recovery ('discontinued') in 2002 varied from 86% in the Wellington region to around 72% in the Waikato and the Northland regions. Comparing Table 11 with Appendix Table 3, the West Coast region experienced the largest increase in the proportion of students who had successfully completed Reading Recovery from 2001 to 2002 (from 66% to 77%) while the Nelson region had the largest decrease in the same period (from 82% to 75%).

### Students' Levels of Progress and Outcomes

Students in Reading Recovery were assessed by three measures: the Reading Recovery Instructional Text Level, the Burt Word Reading Test and the Writing Vocabulary (Clay). Data on reading levels were captured for students who were discontinued or 'referred on' from Reading Recovery. Figure 2 below demonstrates that the child's initial reading level (Instructional Text Level) is suggestive, but not predictive, of the likelihood of the student requiring referral. The results of the Burt Word Reading Test and the Writing Vocabulary test (Clay) show a similar result (see Appendix Figures 1 and 2). The average reading scores for the students, who eventually required referrals, were typically half the scores of students who successfully completed ('discontinued') Reading Recovery. This suggests that many of the more serious reading problems students may have, which require referral, are affecting scores from the beginning. Students, who were eventually referred, spent, on average, 87 sessions in Reading Recovery, 11 sessions more than their 'discontinued' classmates, while gaining typically only 64% of the gain<sup>11</sup> that the average 'discontinued' student gained. However, as noted above, the initial low reading score, while suggestive of a potential referral requirement, is not predictive. The majority of children with low initial scores were still discontinued successfully as shown in Figure 2.

In total, 256 students were responding but not able to be continued in Reading Recovery. Various reasons were given for their non-continuation, including resource issues of one kind or another (Reading Recovery teacher leaving, school no longer offering Reading Recovery). Other reasons

**FIGURE 2: Reading Recovery Instructional Text Level At Initial Entry**



included the student's poor attendance, parents refusing to allow their child to continue with Reading Recovery, and the child transferring school. A very small number of students left Reading Recovery due to accident or serious illness.

<sup>11</sup>Gain is calculated as the difference between the Reading Recovery Instructional Text Level scores at initial entry and when discontinued/referred. The average gain was 13.0 for students with a successful outcome (i.e. those who made successful progress and were discontinued) and 8.3 for those who were 'referred on' for further specialist support.

### The Mean Number of Reading Recovery Sessions in 2002 by Gender and Ethnicity

Students who completed Reading Recovery successfully ('discontinued') had an average of 76 sessions. Table 12 shows the average number of 30-minute sessions children, who successfully completed Reading Recovery in 2002, received based on gender and ethnicity. On an average, boys and girls received 77 and 73 sessions in 2002, respectively. The mean number of sessions ranged from 84 sessions (Niuean boys) to 65 sessions (Indian girls) but in these cases the absolute numbers of children are small.

**TABLE 12: Ethnicity and gender of students with successful outcomes and the number of Reading Recovery sessions in 2002<sup>a</sup>**

Ethnicity	Mean number of sessions <sup>b</sup>	
	Boys	Girls
Māori	79	75
Tokelauan	74	79
Fijian	67	72
Niuean	84	71
Tongan	82	71
Cook Island Maori	84	73
Samoan	76	74
Other Pacific Islands	76	91
South East Asian	77	76
Indian	76	65
Chinese	76	70
Other Asian	76	76
Other	77	78
Other European	77	72
NZ European	76	72
Unspecified	81	66
<b>Total</b>	<b>77</b>	<b>73</b>

<sup>a</sup> Excludes students enrolled in the Correspondence School, private schools, health camps, and special schools.

<sup>b</sup> Mean number of sessions was calculated by dividing the total number of sessions by the number of children, who successfully completed Reading Recovery in 2002, for each gender and ethnicity.

<sup>c</sup> The data for this table refers to those students who successfully completed Reading Recovery in 2002.

## Students' Learning Gains

### Students' Learning Gain in Reading and Writing by Gender and Ethnicity

In terms of gender, there is little difference in gain across the three measures between girls and boys. On the Reading Recovery Instructional Text Level, students who successfully completed Reading Recovery ('discontinued') gained an average of 13.0 (12.6 in 2001), with boys (13.0) only marginally higher than girls (12.5). On the Burt Word Reading Test, the overall average gain of students was 16.5 (16.1 in 2001) with boys gaining 16.7 and girls gaining 16.1. There was a slightly larger variation in the gain for the Writing Vocabulary Task (Clay). The average gain in the Clay assessment for all those who successfully completed Reading Recovery ('discontinued') was 33.4 (32.3 in 2001), with boys gaining (32.8) and girls gaining (34.5). This is as one might expect, given that the student must show a certain level of improvement to recover to the average reading band and be 'discontinued' from Reading Recovery.

**TABLE 13: Ethnicity and gender of students with successful outcomes and their gain in reading and writing in 2002<sup>a</sup>**

Ethnicity	Gain <sup>b</sup> in Reading Recovery Instructional Text Level		Gain in Burt Word Reading Test (NZ revision)		Gain in Writing Vocabulary Task (Clay)	
	Boys	Girls	Boys	Girls	Boys	Girls
Māori	13.3	13.0	17.4	17.1	32.4	35.2
Tokelauan	14.0	14.2	18.9	18.8	43.8	44.6
Fijian	13.1	13.0	17.2	15.3	35.7	30.5
Niuean	13.7	12.3	18.1	16.4	34.3	31.1
Tongan	14.0	13.5	17.9	16.2	35.2	36.0
Cook Island Maori	13.7	13.7	18.5	17.1	35.8	33.8
Samoaan	13.6	14.1	18.3	17.1	36.2	38.6
Other Pacific Islands	14.5	13.3	17.8	18.6	36.3	38.3
South East Asian	13.6	14.0	18.2	18.9	25.6	46.0
Indian	12.9	13.7	15.1	16.8	33.5	39.8
Chinese	13.8	13.7	16.5	15.9	35.8	38.8
Other Asian	12.6	14.1	16.1	17.4	38.3	40.7
Other	14.0	14.1	19.2	19.1	34.7	37.6
Other European	13.3	13.9	17.6	15.5	34.8	36.6
NZ European	13.0	11.9	16.3	15.5	32.5	33.4
unspecified	12.9	12.5	16.6	14.9	34.6	25.7
<b>Total</b>	<b>13.0</b>	<b>12.5</b>	<b>16.7</b>	<b>16.1</b>	<b>32.8</b>	<b>34.5</b>

<sup>a</sup> Excludes students enrolled in the Correspondence School, private schools, health camps, and special schools.

<sup>b</sup> Gain is calculated as the difference between the level/score when the students were discontinued or referred and at initial entry divided by the number of students in that group.

<sup>c</sup> The data for this table refers to those students who successfully completed Reading Recovery in 2002.

Table 13 shows the gain in reading and writing from the series of 30-minute lessons that they acquired in Reading Recovery by gender and ethnicity. In terms of ethnicity, Tokelauan students generally gained more in all the three measures compared to other students. Pasifika boys, in particular, gained across the three measures. However, results for these particular ethnicities involved small numbers of students.

### Students' Learning Gain During Reading Recovery in 2002 by Decile

**TABLE 14: Students' learning gain during Reading Recovery by decile**

Decile	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	17.2	8.3	26.8	17.2	54.2
2	4.1	17.4	9.1	26.6	18.1	54.2
3	4.3	17.4	9.5	26.6	19.0	53.2
4	4.7	17.8	10.1	26.8	20.5	54.7
5	4.9	17.8	10.6	26.9	21.6	55.3
6	4.9	17.8	10.5	26.3	20.9	53.6
7	5.0	18.1	11.0	27.1	21.3	54.0
8	5.5	17.9	11.2	26.9	22.1	56.0
9	5.1	18.4	11.3	27.3	22.7	55.8
10	5.1	18.4	11.4	27.4	22.1	54.5

<sup>a</sup> The data for this table refers to those students who successfully completed Reading Recovery in 2002.

Table 14 shows the mean assessment scores of those students who successfully completed ('discontinued') Reading Recovery according to the decile rating of their schools at their points of entry and exit. There is a clear trend according to decile, with students in higher decile schools having slightly higher reading and writing levels, more so on entry than on

exit. In all measures and deciles, the score at exit is similar, which is as one would expect, as had a student not shown sufficient recovery in reading levels to reach the average band, they would not have been 'discontinued' from Reading Recovery.

However, the gain in assessment scores between entering and leaving Reading Recovery is, for all deciles, much greater than any decile correlated variations. While higher decile schools have slightly higher reading and writing scores, more so on entry than on exit, the gains that students made in lower decile schools are slightly greater than for students in higher decile schools for the Burt Word Reading Test and Writing Vocabulary Task (there was no difference in the Reading Recovery Instructional Text Level). Considered in light of Table 3, which showed that students in lower decile schools had more time in Reading Recovery, this data suggests that, in general, the gain took more time to achieve in lower decile schools.

## Conclusion

Reading Recovery in 2002 has followed the trends established in previous years. Up until 1995, data on Reading Recovery has consistently exhibited an increase in the number of students each year. The data for the period 1996—2001, however, suggests a slight decline, with 14,016 students (24% of all six-year-olds) enrolled in 1996, 13,416 (22%) enrolled in 1997, 13,036 (22%) enrolled in 1998, 12,628 (22%) enrolled in 1999, 12,061 (21%) students enrolled in 2000 and 11,893 (21%) in 2001<sup>12</sup>. The 2002 figure, 11,565 (21%) sees a levelling off of this gradually declining trend. The proportion of schools implementing Reading Recovery is also following a slowly declining trend from 71% in 1999 to 68% in 2002. The proportion of the six-year-old population in those schools with Reading Recovery is down slightly to 78% (from 80% in 2001). Reading Recovery is more widely available in high decile schools, but where present, Reading Recovery in low decile schools has relatively more students and offers more hours per student than in high decile schools. While higher decile schools have slightly higher reading and writing scores, more so at entry than at exit, the gains that students made in lower decile schools are slightly greater than for students in higher decile schools for the Burt Word Reading Test and Writing Vocabulary Task (there was no difference in the Reading Recovery Instructional Text Level).

Findings from the individual data follow the general patterns of literacy in New Zealand with gender, ethnicity and school decile being important factors. There are proportionally more boys, Pasifika and Māori students in Reading Recovery, and proportionately fewer girls, Asians and NZ Europeans. Students in low decile schools are less likely to have successful outcomes than those in high decile schools, being more likely to be ‘referred on’, be unable to complete Reading Recovery, or leave the school before completing.

Data presented in this report also indicate that the overall pattern of students’ progress in Reading Recovery remained fairly consistent with that of previous years, with approximately 59% of students completing Reading Recovery successfully during 2002 and a further 24% considered to be responding well and carried over into 2003 with the expectation of successful completion of their lessons.

For further information about Reading Recovery, contact the National Reading Recovery Centre, Auckland College of Education, Private Bag 92601, Symonds Street, Auckland or visit their Reading Recovery website at [www.readingrecovery.ac.nz](http://www.readingrecovery.ac.nz)

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<sup>12</sup>Data supplied by the Ministry of Education’s Data Management and Analysis Division indicate that there was almost no change in the total six-year-old population in New Zealand between 1995 and 1996 (from 57,491 in 1995 to 57,416 in 1996). However, between 1996 and 1997 there was an overall increase of four percent in the six-year-old population (bringing the total to 59,739, an increase of 2,323 children). There was an overall decrease of 2% in the six-year-old population (1,317 children) between 1997 and 1998, a decrease of 3% percent (1,505 children) between 1998 and 1999 and a decrease of 1% (547 children) between 1999 and 2000. This decreasing trend of 1% in the six-year old population has reached a plateau since then (a decrease of 407 children between 2000 and 2001 and a decrease of 763 children between 2001 and 2002).

## Appendices

**APPENDIX TABLE 1: Schools with Reading Recovery in 2001, by region<sup>a</sup>**

Local Body (Region) <sup>b</sup>	Schools with Reading Recovery		Total schools with six-year-olds		Access to Reading Recovery	
	N	6 year olds on roll <sup>c</sup>	N	6 year olds on roll	Schools %	Six year olds %
Northland Region	81	1,867	130	2,409	62.3	77.5
Auckland Region	246	13,037	373	17,898	66.0	72.8
Waikato Region	201	4,869	266	5,670	75.6	85.9
Bay of Plenty Region	74	2,896	127	3,928	58.3	73.7
Gisborne Region	13	459	49	819	26.5	56.0
Hawkes Bay Region	60	1,847	111	2,343	54.1	78.8
Taranaki Region	68	1,352	98	1,547	69.4	87.4
Manawatu-Wanganui Region	108	2,535	190	3,358	56.8	75.5
Wellington Region	173	5,595	203	6,074	85.2	92.1
Tasman Region	25	574	30	589	83.3	97.5
Nelson Region	13	493	15	542	86.7	91.0
Marlborough Region	22	511	26	538	84.6	95.0
West Coast Region	21	346	40	432	52.5	80.1
Canterbury Region	212	5,766	257	6,307	82.5	91.4
Otago Region	92	1,819	132	2,194	69.7	82.9
Southland Region	61	1,045	87	1,315	70.1	79.5
<b>Total</b>	<b>1,470</b>	<b>45,011</b>	<b>2,134</b>	<b>55,963</b>	<b>68.9</b>	<b>80.4</b>

<sup>a</sup> Excludes the Correspondence School, private schools, health camps, special schools.

<sup>b</sup> Note that in previous reports, Reading Recovery schools were presented by education district. The above table shows the 2001 data based on Local Body (Region) as defined by the Education Institution Profile Codebook of the Ministry of Education. This has been done to enable comparison with Table 1 of this report and for consistency between comparisons in future reporting.

<sup>c</sup> Source: Data Management Unit, Ministry of Education, E4/2: Annual Return of Primary Pupils as at 1 July 2001. (To estimate the number of students who turned six during the year, five- and six-year-old totals were added together and then divided by two.)

**APPENDIX TABLE 2: Six-year-old students who entered Reading Recovery in 2001, by region <sup>a</sup>**

Local Body (Region) <sup>b</sup>	Six year olds who entered Reading Recovery in 2001 <sup>c</sup>		Total six-year-old school population
	N	% of total	N
Northland Region	458	19.0	2,409
Auckland Region	2,282	12.8	17,898
Waikato Region	958	16.9	5,670
Bay of Plenty Region	467	11.9	3,928
Gisborne Region	103	12.6	819
Hawkes Bay Region	426	18.2	2,343
Taranaki Region	268	17.3	1,547
Manawatu-Wanganui Region	549	16.3	3,358
Wellington Region	1,262	20.8	6,074
Tasman Region	110	18.7	589
Nelson Region	91	16.8	542
Marlborough Region	95	17.7	538
West Coast Region	96	22.2	432
Canterbury Region	1,074	17.0	6,307
Otago Region	484	22.1	2,194
Southland Region	293	22.3	1,315
<b>Total</b>	<b>9,015</b>	<b>16.1</b>	<b>55,963</b>

<sup>a</sup> Excludes the Correspondence School, private schools, health camps, special schools.

<sup>b</sup> Note that in previous reports, Reading Recovery schools were presented by education district. The above table shows the 2001 data based on Local Body (Region) as defined by the Education Institution Profile Codebook of the Ministry of Education. This has been done to enable comparison with Table 2 of this report and for consistency between comparisons in future reporting.

<sup>c</sup> This table is the same format used for presenting the 1994 to 2000 Reading Recovery data but differs from the equivalent table included in reports prior to 1994, in that it now only gives the numbers of students who entered Reading Recovery in the relevant year (in this case, 2001), rather than the total number involved in Reading Recovery. (The change has been made because it became evident that the previous format was confusing and led to misinterpretation of the data.) However, if the number of students carried over from 2000 and the number of students who transferred from other schools were also included, the total number of students involved in Reading Recovery in 2001 would be 11,893 students (21 percent of the total six-year-old state school population in New Zealand).

<sup>d</sup> Source: Ministry of Education, E4/2: Annual Return of Primary Pupils as at 1 July 2001. (To estimate the number of students who turned six during the year, five- and six-year-old totals were added together and then divided by two.)

**APPENDIX TABLE 3: Proportion of students who successfully completed Reading Recovery and exited in 2001, by region<sup>a</sup>**

Local Body (Region) <sup>b</sup>	Students who had successfully completed Reading Recovery in 2001 <sup>c</sup>		Total number of students who left Reading Recovery in 2001
	N	% of total	N
Northland Region	319	72.5	440
Auckland Region	1,655	76.2	2,171
Waikato Region	721	76.0	949
Bay of Plenty Region	405	82.8	489
Gisborne	71	75.5	94
Hawkes Bay Region	325	79.3	410
Taranaki Region	231	78.8	293
Manawatu-Wanganui Region	461	81.3	567
Wellington Region	1,057	87.1	1,213
Tasman Region	90	75.6	119
Nelson Region	80	81.6	98
Marlborough Region	55	64.7	85
West Coast Region	71	66.4	107
Canterbury Region	862	82.1	1,050
Otago Region	366	77.1	475
Southland Region	190	72.5	262

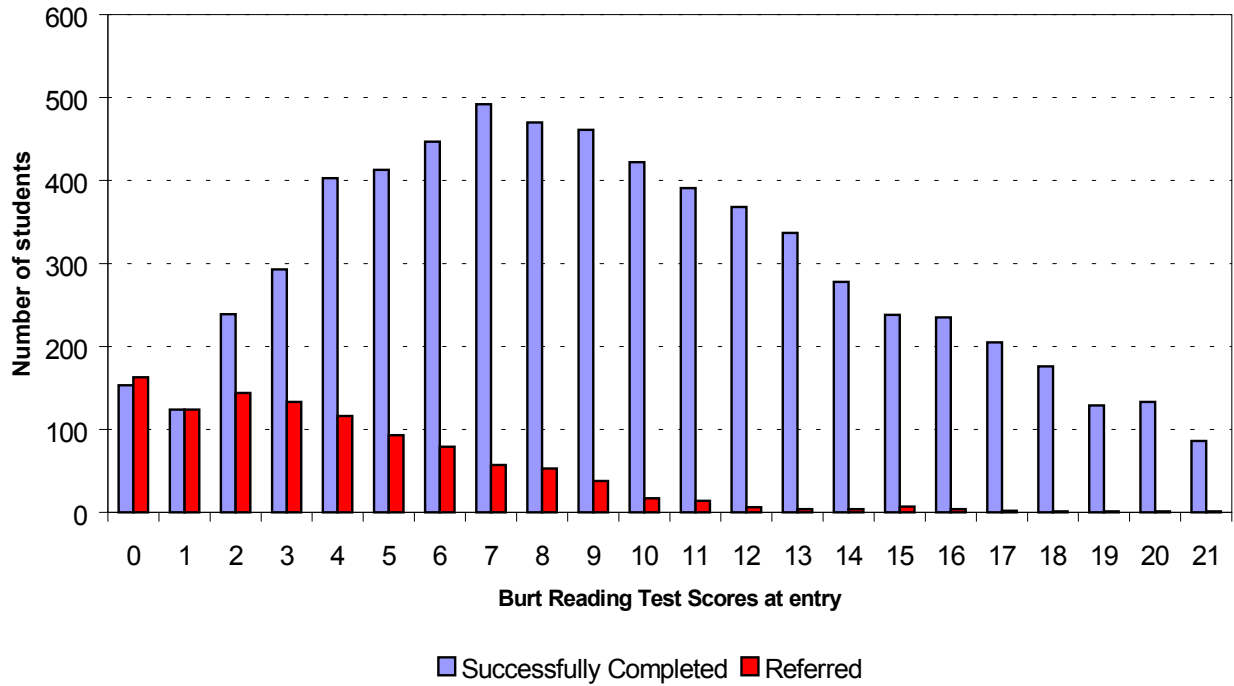
<sup>a</sup> Excludes the Correspondence School, private schools, health camps, special schools.

<sup>b</sup> Region refers to Local Body (Region). This table is based on the 2001 data and has been introduced as an appendix in this report to enable comparison with Table 14 of this report.

<sup>c</sup> These were calculated by dividing the number of students in the region who successfully completed Reading Recovery ('discontinued') in 2001 by the total number of students in the region who exited in 2001 (i.e. excluding those children who were carried over to 2002).

<sup>d</sup> Totals do not add up with Table 6 of the 2001 Annual Monitoring report as few returns did not have any information about their school.

**APPENDIX FIGURE 1: Burt Word Reading Test At Initial Entry**



**APPENDIX FIGURE 2: Clay Writing Vocabulary Task At Initial Entry**

