

A new feature in National Monitoring since 1999 has been the commitment to look directly at the achievement of Pacific students in New Zealand primary and intermediate schools. These students were among the samples in NEMP assessments between 1995 and 1998, but not in sufficient numbers to allow their results to be reported separately. At the request of the Ministry of Education, NEMP now selects special additional samples of 120 year 4 students and 120 year 8 students to allow the achievement of Pacific students to be assessed and reported. The augmented samples are too small, however, to allow separate reporting on students from different Pacific nations (such as Samoa, Tonga, and Fiji).

The augmented samples are drawn from schools with at least 15 percent Pacific students. Schools in this category comprise about 10 percent of New Zealand schools and include about 15 percent of all students. About 75 percent of Pacific students attend such schools.

All schools in the main NEMP year 8 sample that had 15 percent or more Pacific students (as classified in school records) were selected. All other schools nationally with at least 12 year 8 students and at least 15 percent Pacific students in their total roll were identified, and an additional random sample of 10 schools drawn from this list. A similar procedure was followed at year 4 level, except that schools already chosen at year 8 level were excluded from the sampling list. From each specially sampled school, 12 students (in 3 groups of 4) were sampled, confirmed and assessed using exactly the same procedures as in the main sample. The students' performances were also scored in the same manner as the performances of students in the main sample.

The results for Pacific, Māori, and other students in the schools with more than 15 percent Pacific students were then compared. Because all of the schools chosen for these analyses have at least 15 percent Pacific students, the results only apply to students at schools like these.

Differences among the three ethnic groups of students were checked for statistical significance using one way analysis of variance on the overall scores for each task attempted by individual students (team tasks were excluded). Each analysis compared the performance of about 45 Pacific students, 25 Māori students and 30 other students. The critical level for statistical significance was set at $p = .05$ (so that differences this large or larger among the subgroups would not be expected by chance in more than five percent of cases). Where statistical significance occurred, Tukey tests were used to identify which groups differed significantly.

The mean scores for each group on each task are presented in the tables below, together with the standard deviations for all students in this sample. Statistically significant differences are clearly indicated.

YEAR 4

Average (mean) marks for year 4 students, attending schools enrolling at least fifteen percent Pacific students, who are classified as Pacific students, Māori students or other students

Statistically significant ($p < .05$) differences among the means are shown thus: significantly **lower** or **higher**.

	Pacific mean	Māori mean	Other mean	Overall Std. Dev.
Kiwi Questions	5.0	4.3	6.2	2.3
Clown Show	0.5	0.4	1.1	1.0
Link Task 1	3.4	3.1	3.7	1.1
Bird Mat	1.9	2.9	3.4	2.4
NZ's Forest World	1.8	1.7	2.1	0.8
Whereabouts?	10.9	11.9	13.9	3.5
Book Returns	0.5	0.5	0.7	1.1
Which Book (Y4)	3.9	3.3	4.2	1.6
Dictionary Check-Up	3.8	3.9	4.2	1.7
Kiwi (Y4)	0.7	1.1	1.5	0.9
Kingston (Y4)	0.2	0.2	0.4	0.6
NZ Encyclopedia	0.5	0.4	0.7	0.5
Link Task 4	6.9	7.0	8.0	2.7
Link Task 5	1.8	1.7	2.1	1.1
Stop-Look-Think	1.2	1.3	1.4	0.8
Cats and Dogs	3.2	3.4	3.5	1.8
Diagrams (Y4)	0.8	1.0	1.2	1.1
Link Task 9	1.9	2.5	3.3	2.4
Link Task 10	2.1	2.1	2.7	1.5

For year 4 students, there were statistically significant differences in performance among the three groups on 6 of the 19 tasks. The Pacific students scored significantly lower than the "other" students on four tasks (*Clown Show*, *Bird Mat*, *Whereabouts?* and *Kiwi*). The Māori students scored significantly lower than the "other" students on three tasks (*Kiwi Questions*, *Clown Show*, and *New Zealand Encyclopedia*). There were no statistically significant differences on any of the tasks in Chapter 5 (Analysing and Using Information).

On the *Year 4 Information Skills Survey* (p47), there were statistically significant differences on 2 of the 9 rating items. The Māori students were more positive than the Pacific students on Question 3, but less positive than both the Pacific and “other” students on Question 7.

YEAR 8

Average (mean) marks for year 8 students, attending schools enrolling at least fifteen percent Pacific students, who are classified as Pacific students, Māori students or other students

Statistically significant ($p < .05$) differences among the means are shown thus: significantly **lower** or **higher**.

	Pacific mean	Māori mean	Other mean	Overall Std. Dev.
Kiwi Questions	6.1	6.3	6.5	1.9
Clown Show	2.0	1.7	1.9	1.4
Link Task 1	4.1	4.1	4.3	1.0
Bird Mat	4.2	4.6	5.2	2.1
NZ's Forest World	8.9	8.9	9.4	0.9
Whereabouts?	14.3	14.4	14.9	2.5
Book Returns	1.2	0.9	1.3	1.3
Transportation	1.6	1.9	1.8	0.8
Disasters	3.5	3.9	4.0	2.1
Which Book?	6.9	5.8	7.1	1.8
Dictionary Find	3.6	4.1	4.5	1.7
Kiwi	2.3	2.3	2.8	1.7
Kingston	0.9	0.9	1.2	1.5
Link Task 4	9.4	9.2	10.1	3.5
Link Task 6	4.4	4.5	5.5	2.7
Link Task 8	5.8	5.9	5.8	2.9
Stop-Look-Think	1.4	1.0	1.4	0.7
Diagrams	2.5	2.3	2.7	1.6
Chimps & Orang-utans	5.6	6.6	7.2	3.3
Worm Farm	7.0	6.3	7.2	2.8
Car Cleaner	4.8	2.9	4.9	2.6
Link Task 9	5.8	5.2	6.2	1.9
Link Task 10	2.6	3.5	2.8	1.5
Link Task 11	3.4	3.3	3.2	1.8

For year 8 students, there were statistically significant differences in performance among the three groups on 3 of the 24 tasks. Both Pacific and Māori students scored significantly lower than the “other” students on *NZ's Forest World*. The Māori students also scored significantly lower than both the Pacific and “other” students on *Which Book?* and *Car Cleaner*.

On the *Year 8 Information Skills Survey* (p47), there were statistically significant differences on 2 of the 9 rating items. The Pacific students were more positive than the “other” students on Question 2, and more positive than both Māori and “other” students on Question 3.

Summary

In schools with more than 15 percent Pacific students, year 4 Pacific students performed similarly to their Māori peers, but a little less well than “other” students. Year 8 Pacific students performed a little better than their Māori peers and close to the levels of “other” students.