

# A Appendix : The Sample of Schools and Students in 2006



## Year 4 and Year 8 Samples

In 2006, 2878 children from 255 schools were in the main samples to participate in national monitoring. Half were in year 4, the other half in year 8. At each level, 120 schools were selected randomly from national lists of state, integrated and private schools teaching at that level, with their probability of selection proportional to the number of students enrolled in the level. The process used ensured that each region was fairly represented. Schools with fewer than four students enrolled at the given level were excluded from these main samples, as were special schools and Māori immersion schools (such as Kura Kaupapa Māori).

In May 2006, the Ministry of Education provided computer files containing lists of eligible schools with year 4 and year 8 students, organised by region and district, including year 4 and year 8 roll numbers drawn from school statistical returns based on enrolments at 1 March 2006.

From these lists, we randomly selected 120 schools with year 4 students and 120 schools with year 8 students.



Schools with four students in year 4 or 8 had about a one percent chance of being selected, while some of the largest intermediate (year 7 and 8) schools had a more than 90 percent chance of inclusion.

## Pairing Small Schools

At the year 8 level, six of the 120 chosen schools in the main sample had fewer than 12 year 8 students. For each of these schools, we identified the nearest small school meeting our criteria to be paired with the first school. Wherever possible, schools with eight to 11 students were paired with schools with four to seven students and vice versa. However, the travelling distances between the schools were also taken into account.

Similar pairing procedures were followed at the year 4 level. Nine pairs of very small schools were included in the sample of 120 schools.

## Contacting Schools

In late May, we attempted to telephone the principals or acting principals of all schools in the year 8 sample. In these calls, we briefly explained the purpose

of national monitoring, the safeguards for schools and students, and the practical demands that participation would make on schools and students. We informed the principals about the materials which would be arriving in the school (a copy of a 20-minute NEMP videotape plus copies for all staff and trustees of the general NEMP brochure and the information booklet for sample schools). We asked the principals to consult with their staff and Board of Trustees and confirm their participation by the end of June.

A similar procedure was followed at the end of July with the principals of the schools selected in the year 4 samples, and they were asked to respond to the invitation by the end of August.

## Response from Schools

Of the 126 schools originally invited to participate at year 8 level, 125 agreed. A large intermediate school asked to be replaced because it had major building work in progress and no possible space in or near the school for the NEMP assessments. It was replaced by a nearby large intermediate with the same decile rating. One very small school that was willing to participate no longer had four year 8 students, and we took additional students instead from the school that had been paired with it.

Of the 129 schools originally invited to participate at year 4 level, 125 agreed. Two schools of special character did not wish to participate. The third school was undergoing stressful changes and the fourth was expecting an ERO visit during the same period as the

assessments. All of these schools were replaced by nearby schools of similar size and decile rating. One very small school that was willing to participate now had less than four year 4 students and was replaced by a nearby small school. One school that participated no longer had 12 year 4 students, so also was paired with a nearby small school.

### Sampling of Students

Each school sent a list of the names of all year 4 or year 8 students on their roll. Using computer-generated random numbers, we randomly selected the required number of students (12 or four plus eight in a pair of small schools), at the same time clustering them into random groups of four students. The schools were then sent a list of their selected students and invited to inform us if special care would be needed in assessing any of those children (e.g. children with disabilities or limited skills in English).

For the year 8 sample, we received 132 comments about particular students. In 63 cases, we randomly selected replacement students because the children initially selected had left the school between the time the roll was provided and the start of the assessment programme in the school, or were expected to be away or involved in special activities throughout the assessment week, or had been included in the roll by mistake. The remaining 69 comments concerned children with special needs. Each such child was discussed with the school and a decision agreed. Ten students were replaced because they were very recent immigrants or overseas students who had extremely limited English-language skills. Thirty-seven students were replaced because they had disabilities or other problems of such seriousness that it was agreed that the students would be placed at risk if they participated. Participation was agreed upon for the remaining 22 students, but a special note was prepared to give additional guidance to the teachers who would assess them.



For the year 4 sample, we received 100 comments about particular students. Forty-five students originally selected were replaced because a student had left the school or was expected to be away throughout the assessment week. Fourteen students were replaced because of their NESB (*Not from English-Speaking Background*) status and very limited English, six because they were in Māori immersion classes, three because of a wrong year level and one because of religious beliefs. Twenty-three students were replaced because they had disabilities or other problems of such seriousness the students appeared to be at risk if they participated. Special notes for the assessing teachers were made about eight children retained in the sample.

### Communication with Parents

Following these discussions with the school, Project staff prepared letters to all of the parents, including a copy of the NEMP brochure, and asked the schools to address the letters and mail them. Parents were told they could obtain further information from Project staff (using an 0800 number) or from their school principal and advised that they had the right to ask that their child be excluded from the assessment.



### Results of the Sampling Process

As a result of the considerable care taken, and the attractiveness of the assessment arrangements to schools and children, the attrition from the initial sample was quite low. Less than one percent of selected schools in the main samples did not participate, and less than three percent of the originally sampled children had to be replaced for reasons other than their transfer to another school or planned absence for the assessment week. The main samples can be regarded as very representative of the populations from which they were chosen (all children in New Zealand schools at the two class levels apart from the one to two percent who were in special schools, Māori immersion programmes, or schools with fewer than four year 4 or year 8 children).

Of course, not all the children in the samples actually could be assessed. One student place in the year 4 sample was not filled because insufficient students were available in that school. Ten year 8 students and 12 year 4 students left school at short notice and could not be replaced. Five year 8 students were overseas or on holiday for the week of the assessment. One year 8 and one year 4 student withdrew or were withdrawn by their parents too late to be replaced. Fourteen year 8 students and 14 year 4 students were absent from school throughout the assessment week. Some other students were absent from school for some of their assessment sessions and a small percentage of performances were lost because of malfunctions in the video recording process. Some of the students ran out of time to complete the schedules of tasks. Nevertheless, for almost all of the tasks over 90 percent of the sampled students were assessed. Given the complexity of the Project, this is a very acceptable level of participation.

At the year 8 level, we received a number of phone calls including several from students or parents wanting more information about what would be involved. Nine children were replaced because they did not want to participate or their parents did not want them to.

At the year 4 level we also received several phone calls from parents. Some wanted details confirmed or explained (notably about reasons for selection). Six children were replaced at their parents' request.

### Practical Arrangements with Schools

On the basis of preferences expressed by the schools, we then allocated each school to one of the five assessment weeks available and gave them contact information for the two teachers who would come to the school for a week to conduct the assessments. We also provided information about the assessment schedule and the space and furniture requirements, offering to pay for hire of a nearby facility if the school was too crowded to accommodate the assessment programme. This proved necessary in several cases.

## Composition of the Sample

Because of the sampling approach used, regions were fairly represented in the sample, in approximate proportion to the number of school children in the regions.

### REGION

PERCENTAGES OF STUDENTS FROM EACH REGION:		
REGION	% YEAR 4 SAMPLE	% YEAR 8 SAMPLE
Northland	4.2	4.2
Auckland	33.3	33.3
Waikato	10.0	10.0
Bay of Plenty/Poverty Bay	8.3	8.3
Hawkes Bay	4.2	3.3
Taranaki	2.5	2.5
Wanganui/Manawatu	5.0	5.9
Wellington/Wairarapa	10.8	10.8
Nelson/Marlborough/West Coast	4.2	3.3
Canterbury	11.7	11.7
Otago	3.3	4.2
Southland	2.5	2.5

### DEMOGRAPHY

DEMOGRAPHIC VARIABLES: PERCENTAGES OF STUDENTS IN EACH CATEGORY			
VARIABLE	CATEGORY	% YEAR 4 SAMPLE	% YEAR 8 SAMPLE
Gender	Male	50	54
	Female	50	46
Ethnicity	Pakeha	70	71
	Māori	21	20
	Pasifika	9	9
Main Language at Home	English	89	91
	Other	11	9
Geographic Zone	Greater Auckland	30	33
	Other North Island	48	45
	South Island	22	22
Community Size	< 10,000	19	15
	10,000 – 100,000	23	25
	> 100,000	58	60
School SES Index	Bottom 30 percent	27	22
	Middle 40 percent	36	47
	Top 30 percent	37	31
Size of School	< 25 y4 students	19	
	25 – 60 y4 students	43	
	> 60 y4 students	38	
	<35 y8 students		21
	35 – 150 y8 students		33
	> 150 y8 students		46
Type of School	Full Primary		33
	Intermediate or Middle		49
	Year 7 to 13 High School		16
	Other (not analysed)		2