

Sampling procedures

In 1998, 2872 children from 252 schools were in the final samples to participate in national monitoring. About 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, as were special schools and *Kura Kaupapa* schools (by mutual agreement, the latter will be included in the year 8 assessments from 1999 onwards).

Early in May 1998, 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 1998.

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. In the three cases where the same school was chosen at both year 4 and year 8 level, a replacement year 4 school of similar size was chosen from the same region and district, type and size of school.

Pairing small schools

At the year 8 level, 5 of the 120 chosen schools had less than 12 year 8 students. For each of these schools, we identified the nearest small school which met our criteria to be paired with the first school. Wherever possible, schools with 8 to 11 students were paired with schools with 4 to 7 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, creating 7 pairs of schools at this level.

Contacting schools

During the second and third weeks of May, we attempted to telephone the principals or acting principals of all schools in the year 8 sample. We made contact with all schools during that period, where necessary leaving messages for the principal to return our call on the Project's 0800 number.

In our telephone calls with the principals, we briefly explained the purpose of national monitoring, the safeguards for schools and students, and the practical demands 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 15 minute NEMP videotape plus copies for all staff and trustees of the NEMP brochure and detailed 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 in July with the principals of the schools selected in the year 4 sample, and they were asked to respond to the invitation by the end of August.

Response from schools

Of the 254 schools invited to participate, 252 agreed. One school declined to participate because all of its year 8 students were in a Māori immersion programme. A school in the year 4 sample gave space constraints as its reason for not participating.

Sampling of students

With their confirmation of participation, 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 4 plus 8 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).

At the year 8 level, we received about 94 comments from schools about particular students. In 45 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 throughout the assessment week. The remaining 49 comments concerned children with special needs. Each such child was discussed with the school and a decision agreed. Six students were replaced because they were very recent immigrants who had extremely limited English language skills. Eight students were replaced because they had disabilities of such seriousness that it was agreed that the students would be placed at emotional risk if they participated. Participation was agreed upon for the remaining 35 students, but a special note was prepared to give additional guidance to the teachers who would assess them.

In the corresponding operation at year 4 level, we received 81 comments from schools about particular students. Twenty-seven children originally selected needed to be replaced because they had left the school. Ten students were mentioned because of their ESOL status. Of these, one very recent immigrant was replaced. Eight students were mentioned because they were participants in total immersion Māori language programmes. Assessment in Māori was arranged for the seven immersion students at one school, and one immersion student was replaced. Other special needs were mentioned for 44 children, and 10 of these children were replaced (4 because of very severe physical disabilities, and 6 because of concerns about their ability to cope with the assessment situation). Special notes for the assessing teachers were made about 43 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 their school principal, and advised that they had the right to ask that their child be excluded from the assessment.

Our 0800 number was monitored in evenings, as well as during the day, for two weeks following each mailing of letters to parents.

At the year 8 level, we received about 20 phone calls including several from students wanting more information about what would be involved. The main issues raised by parents were our reasons for selection of their child, a wish for fuller details or reiteration of what would be involved, concerns about the use of video equipment, or reluctance of the child to take part. Nine children were replaced as a result of these contacts, three at the child's request, and six at the parents' request (two did not want their child video recorded, two were concerned about their child's capabilities and associated stress and two gave no reason).

At the year 4 level we also received about 20 phone calls from parents. Some wanted details confirmed or explained (notably about reasons for selection). Four children were replaced at parents' request because the parents were concerned about additional stress for their children. One child was replaced because the parents were Exclusive Brethren and did not want their child viewing video material. Two children were withdrawn by parents without an explanation.

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.

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 low. Less than one percent of selected schools did not participate, and less than two percent of the originally sampled children had to be replaced for reasons other than their transfer to another school. The sample can be regarded as very representative of the population from which it was chosen (all children in New Zealand schools at the two class levels except the one to two percent in special schools, *Kura Kaupapa* schools, or schools with less than four year 4 or year 8 children).

Of course, not all the children in the sample were actually able to be assessed. Twenty year 8 students and 34 year 4 students either left school at short notice and could not be replaced or were absent throughout the assessment week. Some 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. For many tasks, over 95 percent of the sample were assessed. No task had less than 90 percent of the sample assessed. Given the complexity of the Project, this is a very acceptable success rate.

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	% of year 4 sample	% of year 8 sample
Northland	4.2	4.2
Auckland	30.0	29.2
Waikato	10.0	10.0
Bay of Plenty/Poverty Bay	8.3	8.3
Hawkes Bay	5.0	4.2
Taranaki	2.5	3.3
Wanganui/Manawatu	6.7	6.7
Wellington/Wairarapa	10.8	10.8
Nelson/Marlborough/West Coast	4.2	4.2
Canterbury	11.7	12.5
Otago	3.3	3.3
Southland	3.3	3.3

Demography

Percentages of students in each category of the demographic variables			
Variable	Category	% year 4 sample	% year 8 sample
Gender	Male	50	51
	Female	50	49
Ethnicity	Non-Māori	80	80
	Māori	20	20
Geographic Zone	Greater Auckland	30	29
	Other North Island	47	48
	South Island	23	23
Community Size	> 100,000	57	57
	10,000–100,000	24	25
	< 10,000	19	18
School SES Index	Bottom 30 percent	35	23
	Middle 40 percent	34	41
	Top 30 percent	31	36
School % Māori	< 10%	35	39
	10–30%	41	42
	> 30%	24	19
School % Pacific Island	Up to 5%	66	74
	> 5%	34	26
Size of School	< 20 y4 students	12	
	20–35 y4 students	24	
	> 35 y4 students	64	
	<35 y8 students		23
	35–150 y8 students		32
	> 150 y8 students		45
Type of School	Full Primary		29
	Intermediate		53
	Other (not analysed)		18