

Sampling procedures

In 1996, 2868 children from 265 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 from 1999 onwards).

Late in April 1996, 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 1996.

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 one case 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, 13 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 12 pairs of schools at this level.

Contacting schools

During the second week 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. Discussions with the last few principals were not completed until the following week.

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 mid June 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 July.

Response from schools

Of the 265 schools invited to participate, 260 agreed. Two schools declined because of major disruption caused by building work, two because they were Rudolph Steiner schools reluctant to participate in any “research” (another Rudolph Steiner chose to participate), and the fifth was a small private school which had been included in 1995 and wanted a break from participation. A further school in the original sample was replaced when it became apparent that its year 4 roll had become too small. All six schools were replaced in the same way: we selected the next school of similar size in the same district from our sampling list.

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 88 comments from schools about particular students. In 42 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 46 comments concerned children with special needs. Each such child was discussed with the school and a decision agreed. Three students were replaced because they were very recent immigrants (within six months) who had extremely limited English language skills. Six 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 37 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 126 comments from schools about particular students. In part, the larger number arose because there was a longer time gap between our receipt of the class rolls and the assessment weeks. This meant that 61 children originally selected needed to be replaced because they had left the school. Nineteen students were mentioned because of their ESOL status. Of these, 10 very recent immigrants were replaced. Fourteen students were mentioned because they were participants in total immersion Māori language programmes. Assessment in Māori was arranged for the 10 immersion students at one school, and two immersion students were replaced. Two students were replaced because they had been reclassified as year 3. Other special needs were mentioned for 40 children, and 14 of these children were replaced (1 because of very severe physical disabilities, and 13 because of concerns about their ability to cope with the assessment situation). Special notes for the assessing teachers were made about 37 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 15 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. Five children were replaced as a result of these contacts, one at the child's request, and four at the parents' request (two were Exclusive Brethren and did not allow video viewing, one did not want her child video recorded, and the fourth gave no reason)

At the year 4 level we received about 20 phone calls from parents. Some wanted details confirmed or explained (notably about reasons for selection). One child chose to withdraw even though her parents were happy for her participate. Nine children were replaced at parents' request: three because the family was Exclusive Brethren, and six because parents were concerned about additional stress for their children.

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 two percent of selected schools 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. 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. Some were absent from school for some or all 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 was 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 children from each region

Region	% of year 4 sample	% of year 8 sample
Northland	4.9	4.2
Auckland	29.3	28.4
Waikato	9.9	10.0
Bay of Plenty/Poverty Bay	8.3	8.4
Hawkes Bay	4.2	5.0
Taranaki	4.2	2.5
Wanganui/Manawatu	5.8	6.6
Wellington/Wairarapa	10.9	10.9
Nelson/Marlborough/West Coast	4.2	4.1
Canterbury	11.6	12.6
Otago	4.2	4.0
Southland	2.5	3.3

Demography

Percentages of children in each category of the demographic variables

Variable	Category	% year 4 sample	% year 8 sample
Gender	Male	52	53
	Female	48	47
Ethnicity	Non-Maori	81	78
	Maori	19	22
Geographic Zone	Greater Auckland	29	28
	Other North Island	48	48
	South Island	23	24
Community Size	> 100,000	55	56
	10,000–100,000	29	26
	< 10,000	16	18
School SES Index	Bottom 30 percent	36	33
	Middle 40 percent	30	40
	Top 30 percent	34	27
School % Māori	< 10%	39	32
	10–30%	42	43
	> 30%	19	25
School % PacificIsland	Up to 5%	76	76
	> 5%	24	24
Size of School	< 20 y4 students	21	
	20–35 y4 students	17	
	> 35 y4 students	62	
	<35 y8 students		29
	35–150 y8 students		30
	> 150 y8 students		41
Type of School	Full Primary		39
	Intermediate		51