

Wānangatia te Putanga Tauira  
National Monitoring Study  
of Student Achievement

**Māori Student Achievement  
in Social Studies**

Key findings 2014





Wānangatia te Putanga Tauira  
National Monitoring Study  
of Student Achievement

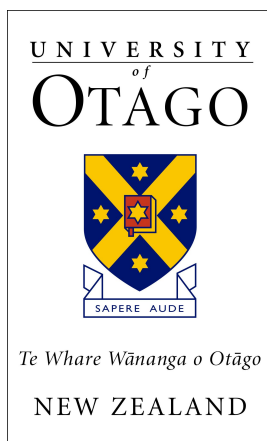
# Māori Student Achievement in Social Studies

## Key findings 2014

Educational Assessment Research Unit  
and  
New Zealand Council for Educational Research



© 2015 Ministry of Education, New Zealand



**National Monitoring Project of Student Achievement Report 6.2:  
Māori Student Achievement in Social Studies – Key findings 2014**

published by Educational Assessment Research Unit, University of Otago, and New Zealand Council for Educational Research  
under contract to the Ministry of Education, New Zealand

ISSN: 2350-3238 (Online)  
ISSN: 978-1-927286-14-2 (Online)

For the Social Studies 2014 – Overview report see <http://nmssa.otago.ac.nz>  
National Monitoring Study of Student Achievement  
Educational Assessment Research Unit, University of Otago, PO Box 56, Dunedin 9054, New Zealand  
Tel: 64 3 479 8561 • Email: [nmssa@otago.ac.nz](mailto:nmssa@otago.ac.nz)

# Contents

---

Acknowledgements	6
Executive Summary	7
1. Introduction	8
2. The 2014 social studies study	8
3. Māori student achievement in social studies	10
4. Māori students' attitudes to social studies and their opportunities to learn in social studies	13
5. Benchmarking Māori success	17
Appendix 1	21
Appendix 2	22

## Acknowledgements

The NMSSA project team wishes to acknowledge the very important and valuable support and contributions of many people to this project, including:

- members of the reference groups: Technical, Māori, Pasifika and Special Education
- members of the curriculum advisory panels in social studies and English: reading
- principals and students of the schools where the tasks were piloted and trials were conducted
- principals, teachers and Board of Trustees members of the schools that participated in the 2014 main study including the linking study
- the students who participated in the assessments and their parents, whānau and caregivers
- the teachers who administered the assessments to the students
- the teachers, senior initial teacher education students and others who undertook the marking
- the Ministry of Education Research Team and Steering Committee.

2014 Project Team	EARU	NZCER
<b>Management Team</b>	Alison Gilmore Ros Allan Lynette Jones	Charles Darr Chris Joyce
<b>Design/Statistics/ Psychometrics/Reporting</b>	Alison Gilmore Mustafa Asil Denise Quinlan Megan Anakin	Charles Darr Hilary Ferral Jess Mazengarb
<b>Curriculum/Assessment</b>	Ros Allan Jane White Doris Lancaster	Juliet Twist Linda Bonne Verena Watson Sue McDowell Charles Darr Rose Hipkins
<b>Programme Support</b>	Lynette Jones Linda Jenkins James Rae Judith Gray Gail Morris Lee Baker	Jess Mazengarb Sarah Boyd
<b>External Advisors</b>	Jeffrey Smith – University of Otago Marama Pohatu – Te Rangatahi Ltd	

## Executive Summary

In 2014, the National Monitoring Study of Student Achievement (NMSSA) assessed student achievement at Year 4 and Year 8 in two areas of the *New Zealand Curriculum* (NZC) – English: reading and social studies. This brief report presents the results for Māori students in social studies.

Māori students made up about 22 percent of the NMSSA samples at Year 4 and Year 8. About 80 percent of Māori students in the sample attended low or mid decile schools at each year level.

Fifty-one percent of Māori students at Year 4 achieved above the minimum score on the Nature of Social Studies (NSS) assessment associated with achieving curriculum level 2 objectives and 25 percent at Year 8 achieved at the minimum score associated with achieving level 4 objectives. These percentages were lower than the corresponding percentages for all students in the respective national samples.

The difference in average scale scores between Māori students in Year 4 and Year 8 was 33 scale units. This was the same as the corresponding difference for all students in the national samples and is equivalent to an annualised average ‘progress’ score of about 8 scale score units.

Overall, Year 4 Māori students had more positive attitudes to social studies than Year 8 Māori students and this pattern was similar to the pattern for all students in the national sample. The association between achievement on the NSS scale and Attitude to Social Studies scale scores for Māori students was not statistically significant at both year levels.

Māori students reported on how often they experienced a range of activities that related to learning social studies at school. The majority of students at both year levels reported experiencing each of the activities at least ‘sometimes’. There were some statistically significant, although weak, positive correlations between students’ reports of how often each of the learning opportunities and experiences happened and their achievement on the NSS assessment. Two activities that showed a discernible relationship at both year levels were: ‘I get to talk about and discuss my ideas with other people in social studies’, and ‘I feel good giving my opinion or ideas in social studies’.

Forty-five percent of Year 4 Māori students scored above the Year 4 national average on the NSS assessment and 40 percent of Year 8 Māori students scored above the Year 8 national average. These percentages were lower than the corresponding percentages for all students in the national samples at Year 4 and Year 8, respectively.

## 1. Introduction

This report provides an overview of findings for Māori<sup>1</sup> students who were involved in the 2014 social studies assessment programme carried out as part of NMSSA. The report begins with an introduction to NMSSA and the 2014 programme. It then describes how Māori students performed on the assessment of social studies used in the study, and how they responded to questions in the student questionnaire related to social studies. The final section looks at the characteristics of Māori students who performed above the national average for their year level.

This report is part of a series of NMSSA reports about social studies. A parallel series of reports present the findings from the NMSSA English: reading assessment programme<sup>2</sup>.

## 2. The 2014 social studies study

### The 2014 National Monitoring Study of Student Achievement

NMSSA is a sample-based monitoring project designed to assess and understand student achievement at Year 4 and Year 8 in New Zealand English-medium state schools. NMSSA aims to cover all learning areas of the NZC during a 5-year cycle. In 2014, the study assessed English: reading and social studies. The study was carried out during Term 3 and involved a nationally representative sample of students from 100 schools at each year level.

### How social studies was assessed

A programme of individual performance tasks and one-to-one interviews administered by specially trained teachers was used to assess the Nature of Social Studies (NSS).

The NSS focused on three aspects of social studies:

- conceptual understanding
- active participation in society
- values and perspectives.

The NSS covered the four strands of the social sciences learning area in the NZC (i.e., identity, culture and organisation; place and environment; continuity and change; and economic world) and covered a wide range of contexts using New Zealand and global settings.

### Reporting achievement

An Item Response Theory (IRT) approach (specifically the Rasch model) was used to construct a reporting scale for the NSS assessment. The scale allows scores for Year 4 and Year 8 students to be reported on the same metric. The scale was constructed so that 100 scale score units represents the combined average score for Year 4 and Year 8, and 20 scale score units is equal to the average standard deviation for a year level. Refer to Chapter 2 of *Social Studies 2014 – Overview* for more information.

A curriculum alignment exercise was undertaken to link achievement ranges on the NSS scale to the levels of the curriculum. Creating this link allowed scale scores to be reported in terms of curriculum levels.

In the NZC, each of the first four curriculum levels was designed to represent about 2 years of learning at school. In general, the expectations are that students in Year 4 will, on balance, achieve level 2 objectives by the end of the year, and that students in Year 8 will, on balance, achieve level 4 objectives by the end of the year.

The alignment exercise focused on defining the minimum score (cut-score) on the NSS scale associated with achieving curriculum level 2, 3 and 4 objectives and is described in Appendix 4 of *Technical Information 2014 – Social Studies, English: Reading*.

---

<sup>1</sup> Students were able to identify with up to three ethnicities. This report includes all students who identified as Māori.

<sup>2</sup> Six reports have been written to present the findings for social studies, and a parallel set of six reports have been written to present the findings for English: reading. A list of the reports for each learning area is provided in Appendix 1.



## Contextual data

A range of contextual data were collected through questionnaires for students, teachers and principals. This report draws on sections of the student questionnaire related to attitudes to social studies, and opportunities to learn in social studies. Additional reporting on contextual data can be found in *Social Studies 2014 – Contextual Report*.

### Māori students participating in the study<sup>3</sup>

Table 1 provides the number of Māori students in the national samples at each year level, by gender and school decile band<sup>4</sup>. Māori students represented about 22 percent of the national samples. There was a greater number of girls than boys in the samples at Year 4 and the reverse was true at Year 8. About half of the Māori students in the Year 4 samples were from low decile schools. At Year 8, about half were from mid decile schools.

Table 1 Number of Māori students in the national samples for the 2014 NMSSA Social Studies study

	Nature of Social Studies		Student questionnaire	
	Year 4	Year 8	Year 4	Year 8
<b>Group</b>				
All Māori	179	181	482	478
<b>Gender</b>				
Girls	103	85	262	225
Boys	76	96	220	253
<b>School decile band</b>				
Low	100	53	240	130
Mid	50	90	150	235
High	29	38	92	113

### How the findings are presented

Box plots, line graphs and tables of summary statistics have been used throughout the report to present findings from the study. In tables and in the text, average scores (e.g., on the NSS assessment) have been rounded to whole numbers. Any differences between average scores that are reported have been calculated using the non-rounded averages

Full tables of the results presented in this report can be found in Appendix 2. Refer to Chapter 2 of *English: Reading 2014 – Overview* for more details about the use of graphs and statistical information.

<sup>3</sup> Up to 25 students in each school responded to the questionnaire. A subset of 8 students in each school participated in the NSS assessment.

<sup>4</sup> The *low* band comprised students in decile 1–3 schools, the *mid* band comprised students in decile 4–7 schools and the *high* band comprised students in decile 8–10 schools.

### 3. Māori student achievement in social studies

#### Achievement against the curriculum

Figures 1 and 2 use line graphs to show the score distribution for Year 4 and Year 8 Māori students on the NSS assessment, respectively, against the agreed alignment of curriculum levels with the NSS scale. The horizontal lines represent the cut-scores (minimum achievement scores) associated with the curriculum levels. The score distributions for all students in the national samples are also provided as a reference.

Fifty-one percent of Year 4 Māori students achieved above the minimum score on the NSS scale associated with achieving curriculum level 2 objectives. Twenty-five percent of Year 8 Māori students achieved above the minimum score associated with achieving curriculum level 4 objectives. The corresponding percentages for all students in the national samples were 63 percent at Year 4 and 38 percent at Year 8. In the NZC, the expectations are that students in Year 4 will, on balance, achieve level 2 objectives by the end of the year, and that students in Year 8 will, on balance, achieve level 4 objectives by the end of the year.

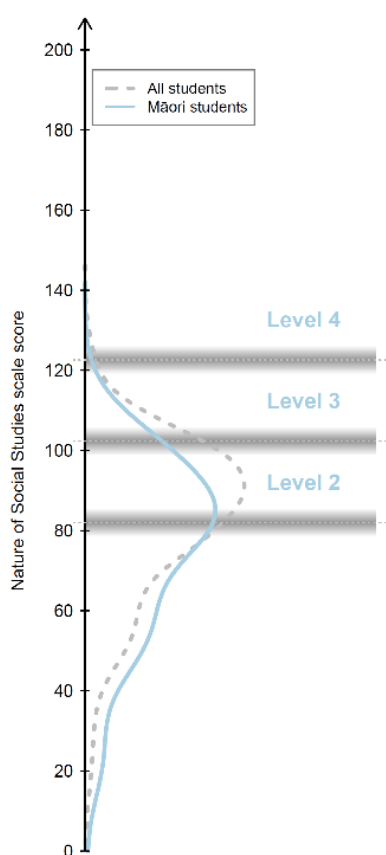


Figure 1 Distribution of Year 4 Māori students' achievement on the Nature of Social Studies scale against the NZC levels for social sciences

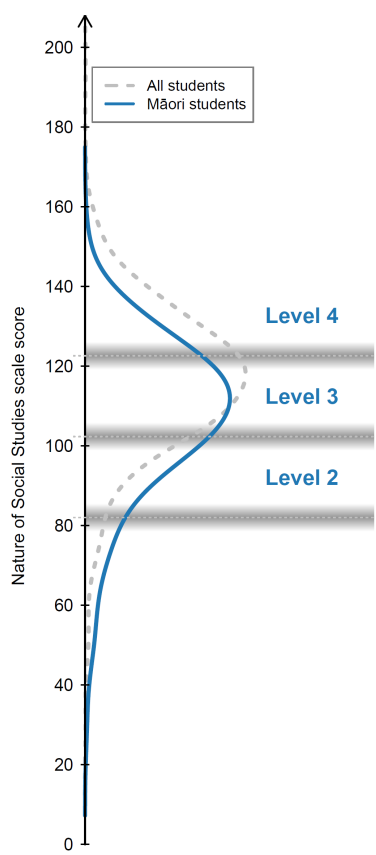


Figure 2 Distribution of Year 8 Māori students' achievement on the Nature of Social Studies against the NZC levels for social sciences

## Achievement by gender, school decile band and school type

Figures 3 and 4 use box plots to display the distributions of scores on the NSS assessment for Māori students, by gender, school decile band and school type in Year 4 and Year 8, respectively.

The difference in the average achievement of Māori girls and boys was not statistically significant at either year level.

There were statistically significant differences in the average achievement of Māori students by school decile band at both Year 4 and Year 8. For example, Year 4 Māori students from low decile schools scored, on average, 27 scale score units lower than Māori students who attended high decile schools, and at Year 8, the difference was 24 scale score units. At both year levels, this difference is equivalent to the amount of 'progress' over about 3 years of schooling.

There was also a statistically significant difference in achievement between school types at Year 4. Māori students attending full primary schools scored, on average, 13 scale score units higher than Māori students attending contributing schools. Differences in achievement by school type are confounded with differences in achievement by school decile. For example, 53 percent of Year 4 Māori students from contributing schools were from low decile schools, while 40 percent of Year 4 Māori students from full primary schools were from low decile schools.

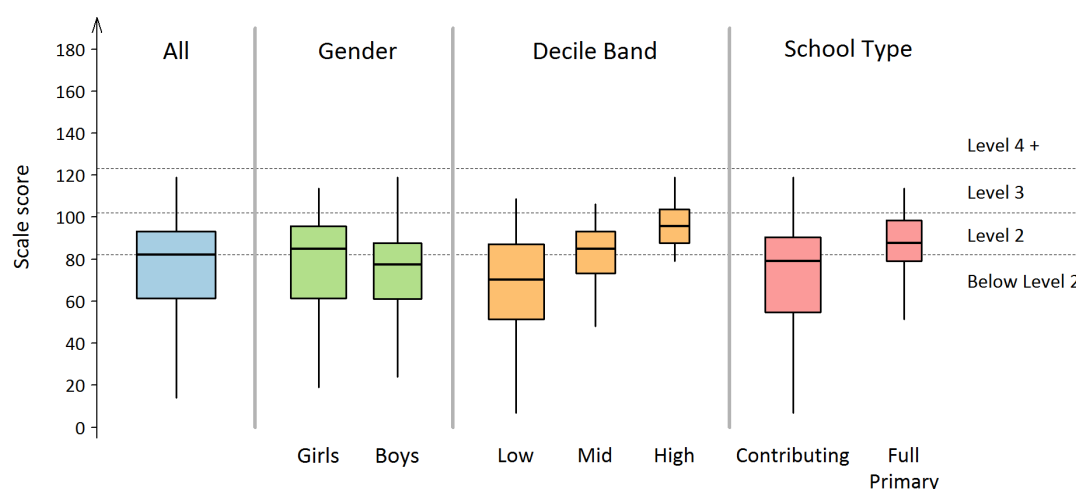


Figure 3 Distribution of Year 4 Māori students' scores on the Nature of Social Studies scale, by gender, school decile and school type

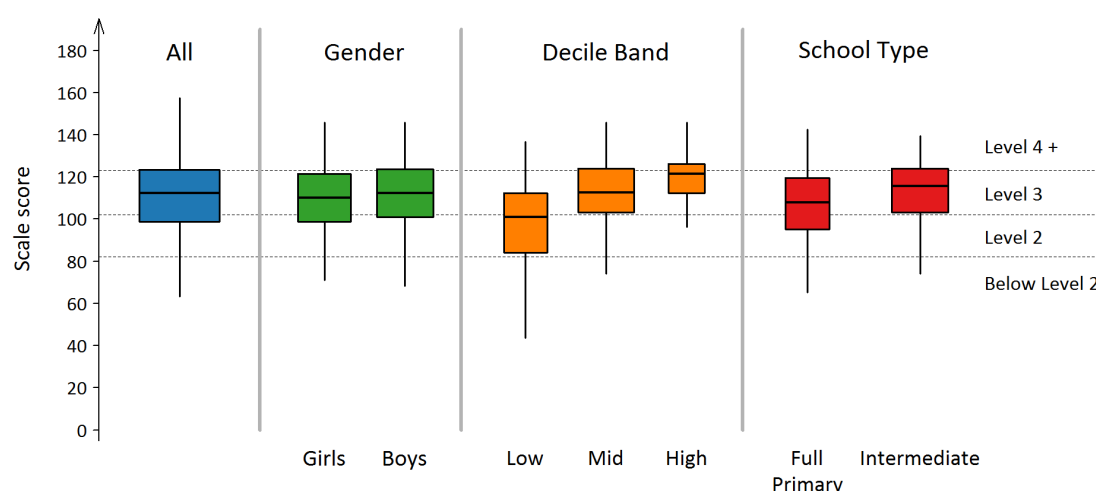


Figure 4 Distribution of Year 8 Māori students' scores of the Nature of Social Studies scale, by gender, school decile and school type

## Difference in achievement between Year 4 and Year 8

Figure 5 shows the distributions of scores on the NSS assessment for Year 4 and Year 8 Māori students. As can be seen, there was a degree of overlap between the distributions – some Year 4 students achieved at a similar level to some students who were in Year 8 and vice versa. At both year levels, achievement ranged over four curriculum levels.

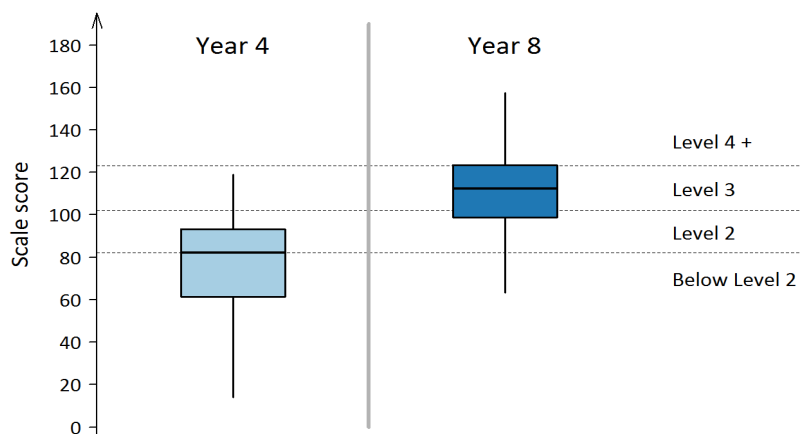


Figure 5 Distribution of Year 4 and Year 8 Māori students' scores on the Nature of Social Studies scale

On average, Māori students in Year 8 scored higher on the NSS scale than Year 4 Māori students by 33 scale score units. This can be interpreted as an annualised difference of just over 8 scale score units. This was similar to the average score difference between Year 4 and Year 8 for all students in the national samples.

The average score difference between students in Year 4 and Year 8 for students from low and mid decile schools was greater than the corresponding difference recorded for students from high decile schools (29 for both low and mid decile schools compared with 26 scale score units for high decile). These between-decile band differences were not statistically significant.

## 4. Māori students' attitudes to social studies and their opportunities to learn in social studies

The student questionnaire, which was administered to all students in the sample, included sections related to attitudes to social studies, and learning opportunities and experiences in social studies. This part of the report describes how students responded to these sections and compares the responses to patterns in achievement.

### Attitudes to social studies

Figure 6 shows how Māori students responded to a series of statements about their attitudes to social studies. Overall, students were positive about social studies, although Year 4 students tended to use stronger agreement categories than Year 8 students. This pattern of response was similar to the pattern observed for all students in the national samples.

The statement with the greatest level of disagreement was 'Social studies is my favourite subject at school', with 21 percent of Year 4 students and 54 percent of Year 8 students responding 'do not agree at all'.

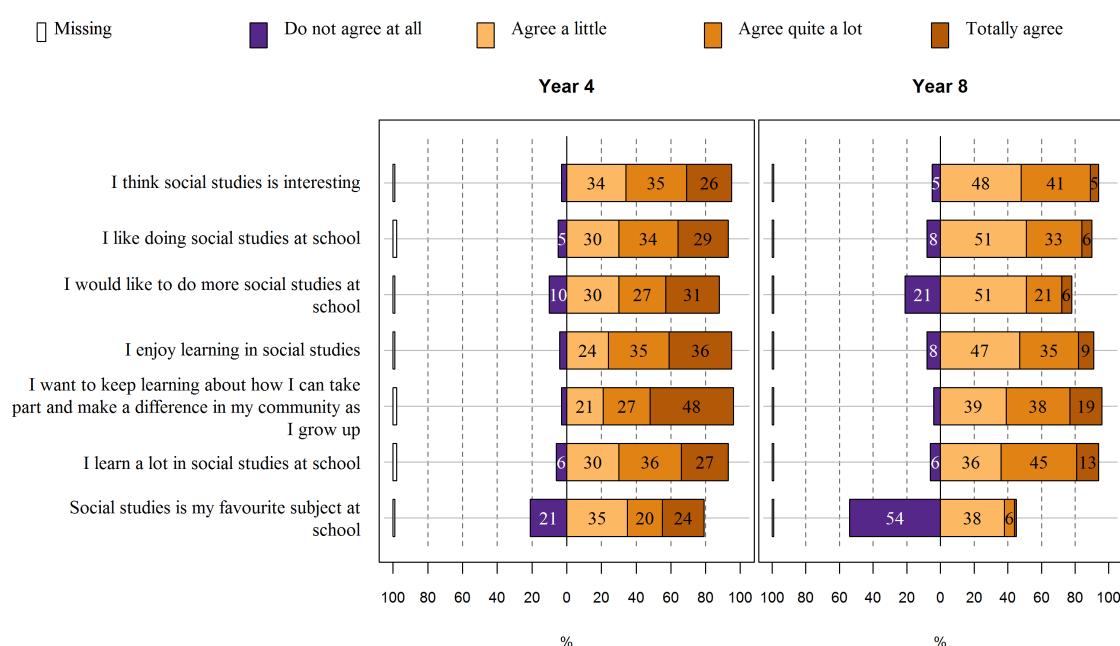


Figure 6 Percentage frequency of Year 4 and Year 8 Māori students' responses to individual attitude statements

### Attitude to Social Studies scale

To provide an overall ‘attitude to social studies’ measure, each of the responses to the attitude statements was scored from 1 to 4, where a ‘1’ represented ‘do not agree at all’ and a ‘4’ represented a ‘totally agree’ response. IRT<sup>5</sup> was then used to convert each student’s total score to an overall Attitude to Social Studies scale score. High scores on the scale indicate a very positive response overall to the attitude statements and low scores indicate a generally negative response to the statements.

Figure 7 shows the distribution of Attitude to Social Studies scale scores for Māori students in Year 4 and Year 8. The scale has been divided into regions associated with the likelihood of different response levels to the attitude statements in the questionnaire. Students with attitude scores in the ‘very positive’ region, for example, typically used the category ‘totally agree’ to respond to the individual statements about attitudes.

Scores for Māori students were more variable at Year 8 than at Year 4. On average, Year 4 Māori students were located higher on the Attitude to Social Studies scale than Year 8 Māori students. Most Year 8 Māori students, however, were still categorised as positive or very positive. The responses for Māori students reflected the pattern for all students in the national samples.

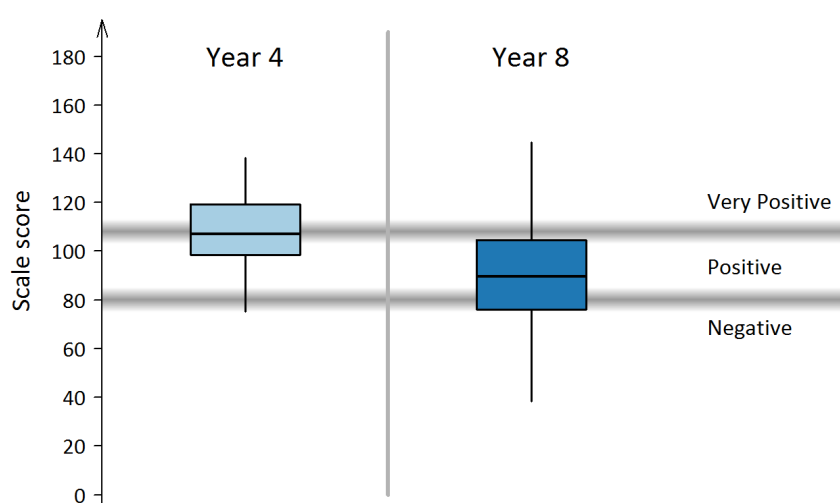


Figure 7 Distribution of Year 4 and Year 8 Māori students’ scores on the Attitude to Social Studies scale.

<sup>5</sup> See Chapter 2 of *NMSSA Report 6.1: Social Studies 2014 – Overview* for more information about the Attitude to Social Studies scale.

### Relationship between achievement and attitudes to social studies

Figures 8 and 9 show the relationship between achievement on the NSS assessment and Attitude to Social Studies for Māori students by using the ‘very positive’, ‘positive’ and ‘negative’ regions of the Attitude to Social Studies scale to form three groups based on attitudes. In the figures, the distribution of NSS scale scores has been plotted for each attitude grouping for Year 4 and Year 8, respectively. There were relatively few students at Year 4 who were in the ‘negative’ category.

Māori students achieved at reasonably similar levels on the NSS scale irrespective of their attitudes to social studies. As was found for all students in the national samples, there was no statistically significant correlation between achievement and attitude scores for Māori students at Year 4 or Year 8.

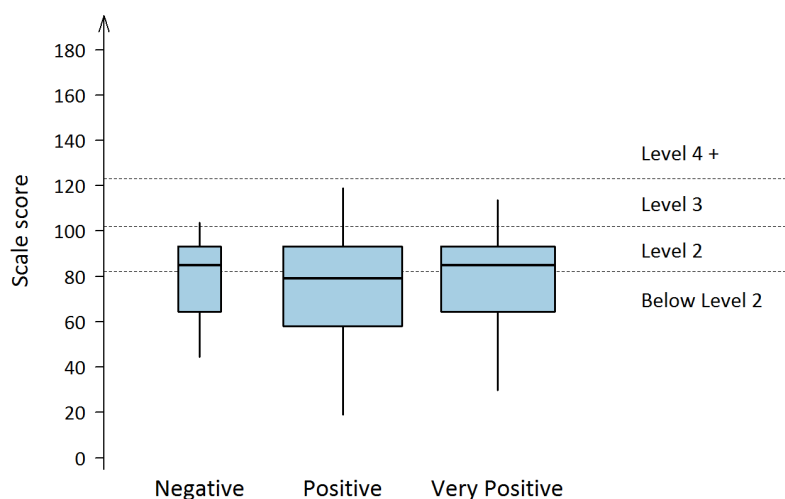


Figure 8 Distribution of Year 4 Māori students' scores on the Nature of Social Studies scale, by category of Attitude to Social Studies

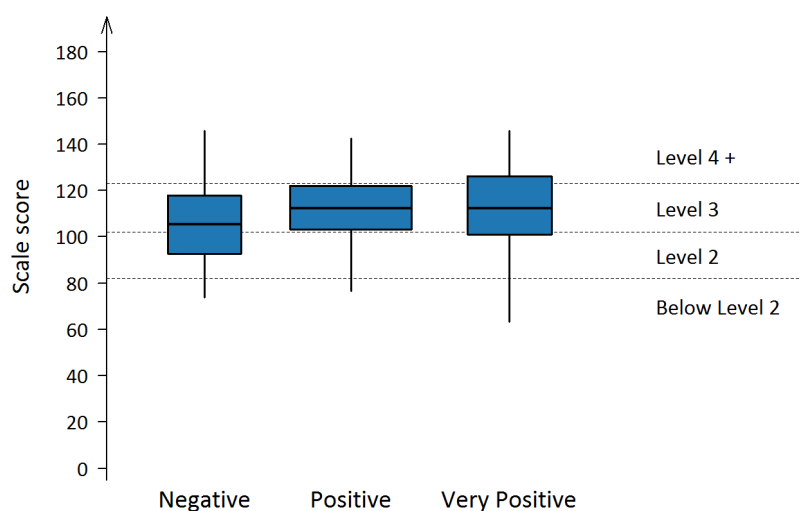


Figure 9 Distribution of Year 8 Māori students' scores on the Nature of Social Studies scale, by category of Attitude to Social Studies

## Learning opportunities and experiences in social studies at school

Figure 10 shows how Year 4 and Year 8 Māori students responded to a series of statements about their learning experiences and opportunities at school. Overall, students' responses were very similar at both year levels with at least 85 percent of students reporting that each of the opportunities and experiences happened either 'sometimes', 'often' or 'very often'. Again, this finding was similar to that for all students in the national samples.

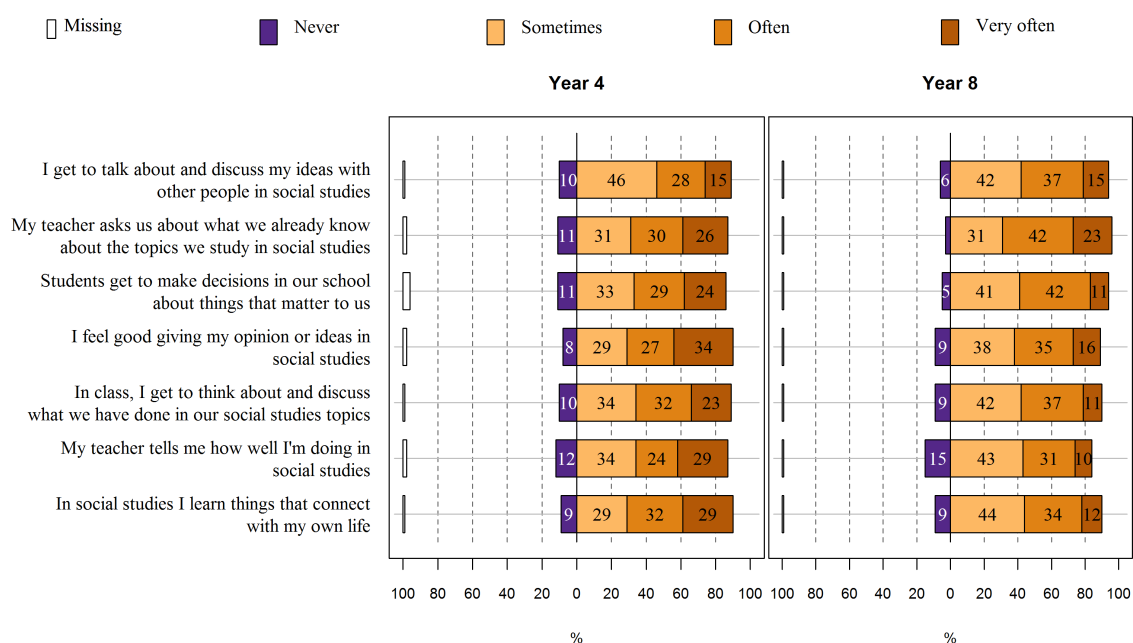


Figure 10 Percentage frequency of Year 4 and Year 8 Māori students' responses to the learning opportunities and experiences statements

### Relationship between achievement and opportunities to learn in social studies

The relationship between students' responses to the learning opportunities and experiences statements and their achievement in social studies was examined by correlating the level of response to the statements with achievement on the NSS measure. The statistically significant correlations<sup>6</sup> are presented in Table 2. There were statistically significant but relatively weak correlations for three statements at each year level. The correlations were slightly stronger at Year 8 than at Year 4. The two statements that showed a discernible relationship at both year levels were: 'I get to talk about and discuss my ideas with other people in social studies', and 'I feel good giving my opinion or ideas in social studies'.

Table 2 Statistically significant correlations between Māori students' scores on the Nature of Social Studies assessment and learning opportunities and experiences statements at Year 4 and Year 8

Statement	Year 4	Year 8
I get to talk about and discuss my ideas with other people in social studies	0.17	0.31
My teacher asks us about what we already know about the topics we study in social studies	0.19	<i>ns</i>
I feel good giving my opinion or ideas in social studies	0.15	0.32
In class I get to think about and discuss what we have done in our social studies topics	<i>ns</i>	0.31

Note: *ns* = not statistically significant

<sup>6</sup> Pearson Product Moment Correlation Coefficient ( $p < 0.05$ ).



## 5. Benchmarking Māori success

This section examines the profile of Year 4 and Year 8 Māori students who scored above the national average for all students in their respective year level (the benchmark) on the NSS assessment. These groups are defined as the ‘highest achieving’<sup>7</sup>. For comparison purposes, a ‘lowest achieving’ group has also been defined at each year level. This group is equal in size to the highest achieving group and is made up of students with the lowest scores.

Forty-five percent of Māori students at Year 4 and 40 percent at Year 8 scored above their respective benchmarks. This compared with 58 percent of all students in the Year 4 national sample and 54 percent of all students in the Year 8 national sample. Table 3 shows the average scale scores on the NSS assessment for Māori students in the highest achieving groups were slightly lower than the averages of all students in the national samples achieving above the respective benchmark.

Table 3 Average and spread of scores on the Nature of Social Studies assessment at Year 4 and Year 8 for Māori students, and for all students in the national sample, scoring above the benchmarks

	Nature of Social Studies			
	Year 4 students scoring above the Year 4 benchmark		Year 8 students scoring above the Year 8 benchmark	
	Māori students	All students	Māori students	All students
Average scale score	96	98	127	131
Standard deviation	9	10	8	12

<sup>7</sup> In this first cycle of NMSSA we have used the national average score at Year 4 and Year 8 as benchmark scores for each learning area. The benchmarks established in this cycle, including those for social studies, may be used to compare results across future cycles of NMSSA.

## Characteristics of highest and lowest achieving students

Figures 11 to 14 show the percentage of Māori students, by gender and school decile band in the highest and lowest achieving groups. The corresponding percentages of all Māori students in the national samples are given for reference in each figure.

### Achievement at Year 4

Figure 11 shows that the highest achieving group of Māori students in Year 4 included twice as many girls as boys. This difference was greater than the difference in the proportion of boys compared with girls in the national sample of all Year 4 Māori students. The lowest achieving group of Māori students included nearly equal proportions of boys and girls.

Figure 12 shows that the highest achieving group of Māori students in Year 4 included approximately similar proportions of students from low, mid and high decile schools. Māori students from low and high decile schools were slightly under-represented in the highest achieving group when compared with the relative proportions of boys and girls for all Year 4 Māori students in the national sample. The majority of Māori students in the lowest achieving group came from low decile schools.

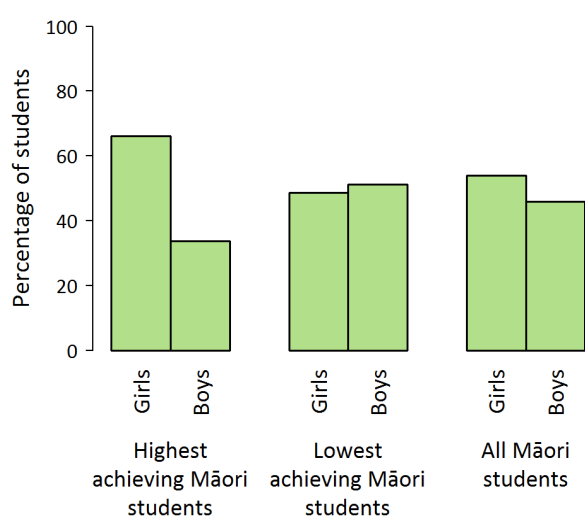


Figure 11 Percentage of Year 4 Māori students in the highest achieving, lowest achieving and all students groups, by gender

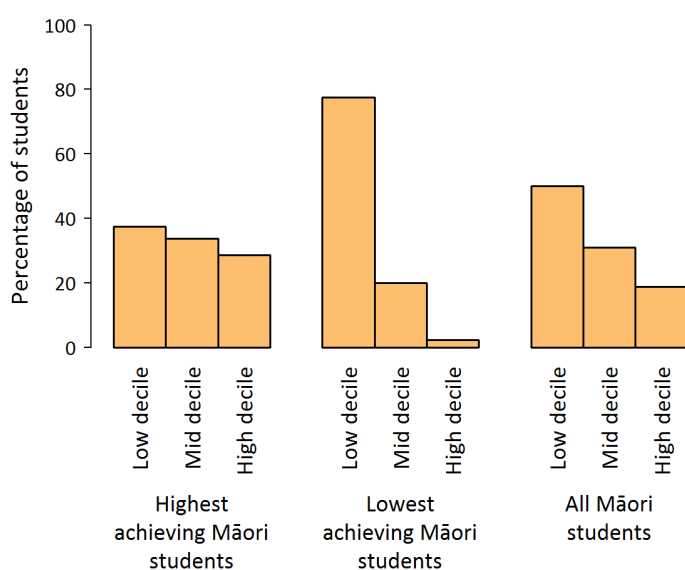


Figure 12 Percentage of Year 4 Māori students in the highest achieving, lowest achieving and all students groups, by school decile band

### Achievement at Year 8

At Year 8, there was a higher percentage of girls than boys in the highest achieving group. The proportion of girls over-represented the relative proportions of girls when compared with all Year 8 Māori students in the national sample (see Figure 13). The lowest achieving group of Māori students included nearly equal proportions of boys and girls.

Figure 14 shows that most Māori students in the highest achieving group came from mid and high decile schools. The proportion of Māori students from high decile schools over-represented the proportion of students in high decile schools in the national sample of all Year 8 Māori students, whereas the proportion of Year 8 Māori students from low decile schools under-represented the proportion of students. The majority of Māori students in the lowest achieving group attended low or mid decile schools.

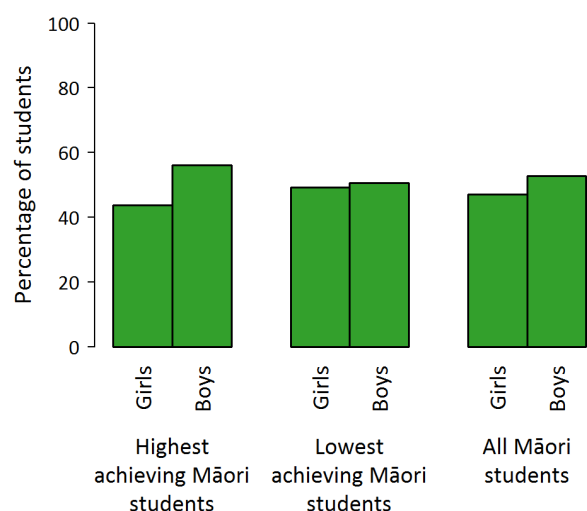


Figure 13 Percentage of Year 8 Māori students in the highest achieving, lowest achieving and all students groups, by gender

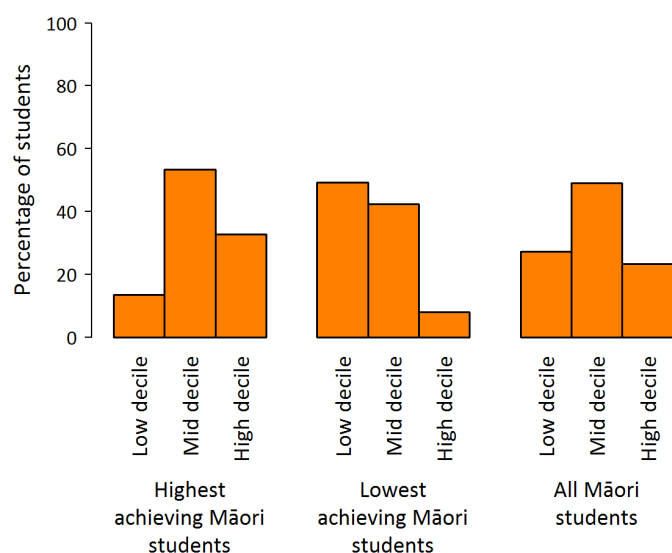


Figure 14 Percentage of Year 8 Māori students in the highest achieving, lowest achieving and all students groups, by school decile band

### Attitudes to Social Studies

There was no difference between the average score on the Attitude to Social Studies scale for the highest and lowest achieving groups of Māori students at both year levels.

### Learning opportunities and experiences in social studies at school

Table 4 shows the percentage of highest and lowest achieving Year 4 and Year 8 Māori students who responded 'often' or 'very often' to the learning opportunities and experiences in social studies statements. Only statements where the difference was 20 percent or more are listed. Students in the highest achieving groups reported experiencing these opportunities more frequently than students in the lowest achieving groups. At Year 4, these statements were 'I get to talk about and discuss my ideas with other people in social studies' and 'My teacher asks us about what we already know about the topics we study in social studies', whereas at Year 8, they were 'I feel good giving my opinion or ideas in social studies' and 'In class I get to think about and discuss what we have done in our social studies topics'.

Table 4 Percentage of Year 4 and Year 8 highest and lowest achieving Māori students responding with 'often' or 'very often' to the learning opportunities and experiences statements

Statement	Year 4		Year 8	
	Highest achieving %	Lowest achieving %	Highest achieving %	Lowest achieving %
I get to talk about and discuss my ideas with other people in social studies	58	37	-	-
My teacher asks us about what we already know about the topics we study in social studies	69	44	-	-
I feel good giving my opinion or ideas in social studies	-	-	74	52
In class I get to think about and discuss what we have done in our social studies topics	-	-	67	39

# Appendix 1

## Reports of findings for English: reading

- 5.1 NMSSA English: Reading 2014 – Overview
- 5.2 NMSSA Māori Student Achievement in English: Reading – Key findings 2014
- 5.3 NMSSA Pasifika Student Achievement in English: Reading – Key findings 2014
- 5.4 NMSSA Achievement of Students with Special Education Needs in English: Reading – Key findings 2014
- 5.5 NMSSA English: Reading 2014 – Contextual Report
- 7 NMSSA Technical Information 2014 – Social Studies, English: Reading

## Reports of findings for social studies

- 6.1 NMSSA Social Studies 2014 – Overview
- 6.2 NMSSA Māori Achievement in Social Studies – Key findings 2014
- 6.3 NMSSA Pasifika Achievement in Social Studies – Key findings 2014
- 6.4 NMSSA Achievement of Students with Special Education Needs in Social Studies – Key findings 2014
- 6.5 NMSSA Social Studies 2014 – Contextual Report
- 7 NMSSA Technical Information 2014 – Social Studies, English: Reading

All reports are available on line at <http://nmssa.otago.ac.nz/reports/index.htm>.

## Appendix 2

Table A2.1	Achievement on the NSS: Summary statistics for Year 4 Māori students	23
Table A2.2	Achievement on the NSS: Summary statistics for Year 8 Māori students	23
Table A2.3	Achievement on the NSS: Differences between subgroup means for Year 4 Māori students	24
Table A2.4	Achievement on the NSS: Differences between subgroup means for Year 8 Māori students	24
Table A2.5	Achievement on the NSS: Differences between means for Year 4 and Year 8 Māori students, by subgroup	25
Table A2.6	Social studies curriculum levels: Year 4 Māori students	26
Table A2.7	Social studies curriculum levels: Year 8 Māori students	27
Table A2.8	Attitude to social studies: Summary statistics for Year 4 Māori students	28
Table A2.10	NSS scale score, by category of attitude to social studies – Māori students	29

Table A2.1 Achievement on the NSS: Summary statistics for Year 4 Māori students

Group	Actual sample size	Effective sample size	Mean	Confidence interval for the mean	Standard deviation
All	179	120	76	(71.5, 80.0)	24
<b>Gender</b>					
Girls	103	69	78	(72.0, 83.5)	25
Boys	76	51	73	(66.0, 79.5)	24
<b>Decile band</b>					
Low decile	100	67	67	(61.0, 73.0)	26
Mid decile	50	34	82	(76.5, 88.0)	17
High decile	29	19	94	(86.5, 101.5)	16
<b>School type</b>					
Composite school • (Years 1–15)	11	7	69	(55.5, 81.5)	18
Contributing school	120	80	72	(66.5, 78.0)	26
Full primary school	48	32	86	(79.5, 91.5)	17

Table A2.2 Achievement on the NSS: Summary statistics for Year 8 Māori students

Group	Actual sample size	Effective sample size	Mean	Confidence interval for the mean	Standard deviation
All	181	121	109	(104.5, 112.5)	22
<b>Gender</b>					
Girls	85	57	109	(104.0, 114.0)	19
Boys	96	64	108	(102.5, 113.5)	23
<b>Decile band</b>					
Low decile	53	36	96	(88.5, 103.5)	23
Mid decile	90	60	111	(106.0, 116.0)	20
High decile	38	25	120	(114.5, 125.5)	14
<b>School type</b>					
Composite school (Years 1–15 & 7–10)	11	7	91	(67.5, 115.0)	33
Full primary school	56	38	105	(98.0, 111.5)	21
Intermediate school	90	60	112	(106.5, 117.0)	20
Secondary school (Years 7–15)	24	16	113	(105.0, 120.5)	16

Table A2.3 Achievement on the NSS: Differences between subgroup means for Year 4  
Māori students

Subgroup 1	Subgroup 1 effective sample size	Subgroup 2	Subgroup 2 effective sample size	Difference in means*	Confidence interval for difference in means	Effect size
<b>Gender</b>						
Girls	69	Boys	51	5	(-4.0, 13.5)	0.20
<b>Decile band</b>						
High decile	19	Mid decile	34	<b>12</b>	(2.5, 21.0)	0.71
High decile	19	Low decile	67	<b>27</b>	(17.5, 36.5)	1.13
Mid decile	34	Low decile	67	<b>15</b>	(7.0, 23.5)	0.66
<b>School type</b>						
Composite school (Years 1–15)	7	Contributing school	80	-4	(-18.0, 10.5)	-0.14
Composite school (Years 1–15)	7	Full primary school	32	<b>-17</b>	(-31.0, -3.0)	-0.99
Contributing school	80	Full primary school	32	<b>-13</b>	(-21.5, -5.0)	-0.55

\* The differences between means in bold are statistically significant ( $p < 0.05$ )

Table A2.4 Achievement on the NSS: Differences between subgroup means for Year 8  
Māori students

Subgroup 1	Subgroup 1 effective sample size	Subgroup 2	Subgroup 2 effective sample size	Difference in means*	Confidence interval for difference in means	Effect size
<b>Gender</b>						
Girls	57	Boys	64	1	(-6.5, 8.5)	0.05
<b>Decile band</b>						
High decile	25	Mid decile	60	<b>9</b>	(1.5, 16.5)	0.49
High decile	25	Low decile	36	<b>24</b>	(14.5, 33.0)	1.20
Mid decile	60	Low decile	36	<b>15</b>	(6.0, 24.0)	0.71
<b>School type</b>						
Composite school (Years 1–15 & 7–10)	7	Full primary school	38	<b>-13</b>	(-38.0, 11.0)	-0.57
Composite school (Years 1–15 & 7–10)	7	Intermediate school	60	<b>-20</b>	(-44.5, 4.0)	-0.94
Composite school (Years 1–15 & 7–10)	7	Secondary school (Years 7–15)	16	<b>-21</b>	(-46.0, 3.5)	-0.95
Full primary school	38	Intermediate school	60	<b>-7</b>	(-15.5, 1.5)	-0.34
Full primary school	38	Secondary school (Years 7–15)	16	<b>-8</b>	(-18.5, 2.5)	-0.39
Intermediate school	60	Secondary school (Years 7–15)	16	<b>-1</b>	(-10.0, 8.5)	-0.04

\* The differences between means in bold are statistically significant ( $p < 0.05$ )



Table A2.5 Achievement on the NSS: Differences between means for Year 4 and Year 8  
Māori students, by subgroup

Group	Year 8 effective sample size	Year 4 effective sample size	Difference in means*	Confidence interval for difference in means	Effect size
All	121	120	<b>33</b>	(27.0, 38.5)	1.43
<b>Gender</b>					
Girls	57	69	<b>31</b>	(23.5, 39.0)	1.40
Boys	64	51	<b>35</b>	(26.5, 44.0)	1.49
<b>Decile band</b>					
Low decile	36	67	<b>29</b>	(19.5, 39.0)	1.17
Mid decile	60	34	<b>29</b>	(21.0, 36.5)	1.54
High decile	25	19	<b>26</b>	(17.0, 35.0)	1.74

\* The differences between means in bold are statistically significant ( $p < 0.05$ )

Table A2.6 Social studies curriculum levels: Year 4 Māori students

Group	Actual sample size	Effective sample size	Percentage of students at <L2	Confidence interval for <L2 percentage	Percentage of students at L2	Confidence interval for L2 percentage	Percentage of students at L3	Confidence interval for L3 percentage	Percentage of students at L4+	Confidence interval for L4+ percentage
All	179	120	49%	(39.5%, 57.5%)	39%	(30.5%, 48.0%)	12%	(6.5%, 18.0%)	-	-
<b>Gender</b>										
Girls	103	69	41%	(29.0%, 52.5%)	44%	(32.0%, 55.5%)	16%	(7.0%, 24.0%)	-	-
Boys	76	51	59%	(45.5%, 72.5%)	33%	(20.0%, 46.0%)	8%	(0.5%, 15.5%)	-	-
<b>Decile band</b>										
Low decile	100	67	65%	(53.5%, 76.5%)	25%	(14.5%, 35.5%)	10%	(3.0%, 17.0%)	-	-
Mid decile	50	34	34%	(18.0%, 50.0%)	58%	(41.5%, 74.5%)	8%	(0.0%, 17.0%)	-	-
High decile	29	19	17%	(0.5%, 34.0%)	55%	(33.0%, 77.5%)	28%	(7.5%, 47.5%)	-	-
<b>School type</b>										
Composite school (Years 1–15)	11	7	64%	(29.0%, 98.5%)	36%	(1.5%, 71.0%)	-	-	-	-
Contributing school	120	80	56%	(45.0%, 66.5%)	32%	(22.5%, 42.5%)	12%	(4.5%, 18.5%)	-	-
Full primary school	48	32	27%	(11.5%, 42.5%)	56%	(39.0%, 73.5%)	17%	(4.0%, 29.5%)	-	-

Table A2.7 Social studies curriculum levels: Year 8 Māori students

Group	Actual sample size	Effective sample size	Percentage of students at <L2	Confidence interval for <L2 percentage	Percentage of students at L2	Confidence interval for L2 percentage	Percentage of students at L3	Confidence interval for L3 percentage	Percentage of students at L4+	Confidence interval for L4+ percentage
All	181	121	11%	(5.5%, 16.5%)	20%	(13.5%, 27.5%)	43%	(34.5%, 52.0%)	25%	(17.5%, 33.0%)
<b>Gender</b>										
Girls	85	57	9%	(2.0%, 17.0%)	22%	(11.5%, 33.0%)	44%	(30.5%, 56.5%)	25%	(13.5%, 36.0%)
Boys	96	64	12%	(4.5%, 20.5%)	19%	(9.0%, 28.5%)	43%	(30.5%, 55.0%)	26%	(15.5%, 37.0%)
<b>Decile band</b>										
Low decile	53	36	25%	(10.5%, 38.5%)	32%	(16.5%, 47.5%)	34%	(18.5%, 49.5%)	9%	(0.0%, 19.0%)
Mid decile	90	60	8%	(1.0%, 14.5%)	17%	(7.5%, 26.0%)	48%	(35.0%, 60.5%)	28%	(16.5%, 39.0%)
High decile	38	25	-	-	13%	(0.0%, 26.5%)	45%	(25.5%, 64.0%)	42%	(23.0%, 61.5%)
<b>School type</b>										
Composite school (Years 1–15 & 7–10)	11	7	45%	(9.5%, 81.5%)	18%	(0.0%, 46.0%)	18%	(0.0%, 46.0%)	18%	(0.0%, 46.0%)
Full primary school	56	38	12%	(2.0%, 23.0%)	29%	(14.0%, 43.0%)	43%	(27.0%, 58.5%)	16%	(4.5%, 28.0%)
Intermediate school	90	60	9%	(1.5%, 16.0%)	13%	(5.0%, 22.0%)	47%	(34.0%, 59.5%)	31%	(19.5%, 43.0%)
Secondary school (Years 7–15)	24	16	-	-	29%	(7.0%, 51.5%)	42%	(17.5%, 66.0%)	29%	(7.0%, 51.5%)

Table A2.8 Attitude to social studies: Summary statistics for Year 4 Māori students

Group	Actual sample size	Effective sample size	Mean	Confidence interval for the mean	Standard deviation
All	482	323	106	(104.0, 108.0)	19
<b>Gender</b>					
Girls	261	175	109	(106.5, 111.5)	17
Boys	221	148	103	(99.5, 106.0)	20
<b>Decile band</b>					
Low decile	240	161	108	(104.5, 110.5)	19
Mid decile	150	100	106	(102.0, 109.0)	18
High decile	92	62	103	(99.0, 107.5)	16
<b>School type</b>					
Composite school (Years 1–15)	14	9	104	(91.5, 117.5)	20
Contributing school	332	222	107	(104.0, 109.0)	18
Full primary school	136	91	105	(101.5, 109.0)	19

Table A2.9 Attitude to social studies: Summary statistics for Year 8 Māori students

Group	Actual sample size	Effective sample size	Mean	Confidence interval for the mean	Standard deviation
All	478	320	90	(88.0, 92.5)	20
<b>Gender</b>					
Girls	225	151	92	(89.5, 95.5)	18
Boys	253	170	88	(85.0, 91.5)	22
<b>Decile band</b>					
Low decile	130	87	89	(83.5, 93.5)	23
Mid decile	235	157	89	(86.5, 92.5)	20
High decile	113	76	93	(89.5, 97.5)	17
<b>School type</b>					
Composite school (Years 1–15 & 7–10)	26	17	87	(75.5, 98.0)	24
Full primary school	149	100	89	(85.5, 93.0)	19
Intermediate school	240	161	91	(88.5, 94.5)	19
Secondary school (Years 7–15)	63	42	88	(80.5, 95.5)	25

Table A2.10 NSS scale score, by category of attitude to social studies – Māori students

Group	Attitude to Social Studies category					
	Negative		Positive		Very positive	
	Actual sample size	Mean NSS scale score	Actual sample size	Mean NSS scale score	Actual sample size	Mean NSS scale score
<b>Year 4</b>						
All	11	80	86	73	78	78
Girls	5	84	52	73	45	82
Boys	6	76	34	74	33	72
<b>Year 8</b>						
All	35	105	97	109	46	111
Girls	14	109	48	109	21	112
Boys	21	103	49	110	25	110





MINISTRY OF EDUCATION  
TE TĀHUHU O TE MĀTAURANGA



UNIVERSITY  
of  
OTAGO  
Te Whare Wānanga o Ōtāgo  
NEW ZEALAND



NZCER  
Rangahau Mātauranga o Aotearoa