



MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Social and cultural outcomes for wānanga students

An analysis from Te Kupenga 2013

This report forms part of a series called Beyond tertiary study.

Other topics covered by the series include how graduates' earnings change over time, labour market outcomes, education and economic growth, and qualifications and income.

Authors

Chris Lane, Senior Research Analyst

David Earle, Chief Research Analyst (appendix).

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MINISTRY OF EDUCATION

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SUMMARY

KEY FINDINGS

This report uses data from Te Kupenga 2013 to explore the relationship between attending wānanga and Māori language revitalisation and culture, identity and wellbeing.

Wānanga students, past and present, are drawn from two somewhat different population groups. One is those with a Māori language background – that is having Māori as a first language and/or having attended kōhanga, kura kaupapa Māori or wharekura. The other group consists of Māori living in neighbourhoods with high socio-economic deprivation, with or without a Māori language background.

Wānanga attendance is associated with stronger language and cultural outcomes. Wānanga students were more likely to have higher levels of current proficiency in te reo Māori and speak Māori at home. They also had stronger knowledge of Māori culture than other adult Māori. These relationships were still strong even after controlling for education and other background characteristics.

Wānanga attendance is associated with levels of social and economic wellbeing similar to those of other education choices for Māori. Wānanga students were on a par with other Māori adults in terms of economic and social wellbeing measures, having taken account of their background characteristics – including their highest qualification level.

Research purpose

The *Tertiary Education Strategy 2014-2019* (Ministry of Education and Ministry of Business, Innovation and Employment, 2014) has a priority focus on Māori. It recognises that tertiary education must enable Māori to achieve education success as Māori, including by protecting Māori language and culture, and to prepare for labour market success. Tertiary education also contributes to Māori cultural outcomes – such as greater knowledge and use of Māori language and tikanga Māori, and development of mātauranga Māori.

Statistics New Zealand's 2013 Te Kupenga Survey of Māori wellbeing provides new information on the relationship between attending wānanga and Māori language revitalisation and culture, identity and wellbeing.

This report provides descriptive breakdowns of the relationships between having studied at a wānanga and language, culture and socio-economic wellbeing. The appendix to the report provides further analysis controlling for background characteristics of wānanga students, which confirms the descriptive analysis in the main part of this report.

As such, the analysis in the report and the appendix demonstrates the associations with wānanga attendance. However, it does not demonstrate whether these associations are causative, that is, whether attending wānanga affected the variables or whether people with these characteristics were more likely to attend wānanga.

Context of language revitalisation

Four measures of Māori language revitalisation are examined using Te Kupenga 2013: first language, speaking proficiency, attendance in Māori-medium education, and use of te reo in the home. A key part of the analysis involves comparing measures by year of birth, that is, in birth cohorts.

Māori as first language shows a decline by year of birth up to and including those born in the late 1970s. There has been a resurgence for those born between 1979 and 1998 (aged 15 to 34 years in 2013), to the extent that they accounted for 40 to 50 per cent of first-language speakers of Māori in 2013.

The speaking proficiency measure shows a more modest stabilisation from the cohort born in the 1960s onwards, as does the extent of speaking te reo in the home.

Most (80 per cent) of first-language speakers born between 1979 and 1998 attended Māori-medium education (in the form of kōhanga reo, kura kaupapa Māori or wharekura), although most students (76 per cent) in Māori-medium education were second-language speakers. For subsequent analyses, first language and Māori-medium are combined as 'Māori language background'. Those with Māori language background were much more likely to speak te reo regularly in the home.

Characteristics of wānanga students

Compared with other Māori adults, wānanga students tended to be older, were predominantly female, and had larger whānau. Māori adults tend to live in areas of relatively high deprivation, but wānanga students were even more strongly concentrated in the most deprived neighbourhoods than other Māori adults.

A higher proportion of wānanga students than other adult Māori were first-language speakers of te reo Māori, or had attended kōhanga reo, kura kaupapa Māori or wharekura. A greater proportion of wānanga students than other adult Māori had tertiary qualifications at Level 4 and above.

Wānanga provide a major pathway to higher qualifications for adult Māori with a Māori language background, especially those whose first language is Māori. Over half (56 per cent) of adult Māori whose first language was Māori and who had a tertiary qualification at Level 4 and above were wānanga students.

The further analysis in the appendix revealed that wānanga students are drawn from two somewhat different population groups. One is those with a Māori language background, that is having Māori as a first language and/or having attended kōhanga, kura kaupapa Māori or wharekura. The other are Māori living in neighbourhoods with high socio-economic deprivation, with or without a Māori language background.

Wānanga students' language proficiency and use

Two measures of te reo Māori outcomes are explored for wānanga students and other adult Māori: respondents' speaking proficiency and whether respondents spoke te reo Māori regularly in the home. For both measures, current and former wānanga students were more likely than other adult Māori to have positive outcomes (i.e. to have moderate to high speaking proficiency and to speak te reo regularly in the home).

This difference in favour of wānanga students applied to all wānanga students irrespective of language background. It was also evident for Māori with tertiary qualifications at Level 4 and above on the New Zealand Qualifications Framework. This was confirmed by the analysis in the appendix. Thus study at wānanga is consistently associated with higher levels of language-speaking proficiency and use of Māori at home.

Wānanga students' culture and identity

Four indicators of Māori cultural knowledge and identification are examined: the importance of Māori culture, knowledge of cultural identifiers, exploration of whakapapa and possession of tā moko. In each case, wānanga students showed greater knowledge and identification with Māori culture than other Māori adults, when taking into account students' background in the Māori language. A point to note is that a majority of all adult Māori had explored their whakapapa in the last 12 months. For Māori with tertiary qualifications at Level 4 and above, the same patterns were generally evident. This was confirmed by the analysis in the appendix, which showed the strongest effect being for knowledge of cultural identifiers.

Each of these areas may reflect selection of Māori students who attend wānanga, that is, that Māori who are stronger in these areas are more likely to choose to study at wānanga. They may also reflect the outcomes of learning at wānanga. It is likely that they reflect both.

Wānanga students' wellbeing

Four measures of wellbeing are explored: employment rate, life satisfaction, whānau wellbeing and control over life. On these measures, wānanga students have similar outcomes to those of other adult Māori, once background characteristics, including highest qualification, are taken into account. This suggests that wānanga attendance is associated with levels of social and economic wellbeing similar to other educational choices for Māori.

1 INTRODUCTION

1.1 Research purpose

Statistics New Zealand's Te Kupenga 2013 Survey of Māori wellbeing provides new information on the relationship between attending wānanga and Māori language revitalisation and culture, identity and wellbeing.

This report provides descriptive breakdowns of the relationships between having studied at a wānanga and language, culture and socio-economic wellbeing. The appendix to the report provides further analysis controlling for background characteristics of wānanga students, which confirms the descriptive analysis in the main part of the report.

As such, the analysis in the report and the appendix demonstrates the associations with wānanga attendance. However, it does not demonstrate whether these associations are causative. That is, whether attending wānanga affected the variables or whether people with these characteristics were more likely to attend wānanga.

1.2 Wānanga

A wānanga is a tertiary education institution which is required to have the following character under the Education Act 1989 (section 162(4)(b)(iv)):

A wānanga is characterised by teaching and research that maintains, advances, and disseminates knowledge and develops intellectual independence, and assists the application of knowledge regarding ahuatanga Māori (Māori tradition) according to tikanga Māori (Māori custom).

There are three wānanga: Te Wānanga o Raukawa, based in Ōtaki, Te Wānanga o Aotearoa, based in Te Awamutu, and Te Whare Wānanga o Awanuiārangī, based in Whakatāne. All three wānanga provide education at a large number of sites, including marae, throughout New Zealand/Aotearoa.

In 2013, there were 39,000 students enrolled in wānanga, of whom 22,500 (58 per cent) identified as belonging to the Māori ethnic group. Wānanga students made up 11 per cent of all students in tertiary education, and 28 per cent of Māori students in tertiary education.

This report relates to Māori who have been enrolled at wānanga, and compares them with adult Māori who have not.

1.3 Context of this report

This report is part of a series looking at what happens after tertiary study, based on research by the Tertiary Sector Performance Analysis team in the Ministry of Education. It is complementary to Mahoney (2014) and Scott (2010).

Scott's report was based on Statistics New Zealand's 2008 General Social Survey. This report is similarly based on a Statistics New Zealand social survey, in this case a social survey of the adult Māori population.

The vision of the government's current Māori education strategy, *Ka Hikitia – Accelerating Success 2013-2017* (Ministry of Education, 2013), is 'Māori enjoying and achieving education success as Māori', with a goal of Māori gaining the 'skills, knowledge and qualifications they need to achieve success in te ao Māori, New Zealand and the wider world'.

The *Tertiary Education Strategy 2014-2019* (Ministry of Education and Ministry of Business, Innovation and Employment, 2014) sets out a series of broad goals for tertiary education for Māori:

In recognising the role of Māori as tangata whenua and Crown partners under the Treaty of Waitangi, TEOs [Tertiary Education Organisations] must enable Māori to achieve education success as Māori, including by protecting Māori language and culture, and to prepare for labour market success.

Tertiary education also contributes to Māori cultural outcomes – such as greater knowledge and use of Māori language and tikanga Māori, and development of mātauranga Māori. TEOs have a responsibility to contribute to the survival and wellbeing of Māori as a people. (p. 7)

Tertiary education in these areas, particularly at wānanga, plays an important role not only in improving individual achievement of Māori (Priority 3), but also in helping to sustain and revitalise Māori language, and progress mātauranga Māori research. This helps sustain Māori culture and delivers economic value to New Zealand. (p. 21).

In the context of rising Māori achievement:

Māori have made huge gains in participation and achievement in tertiary education in recent years. At all ages, participation in higher-level study has increased: 28% of Māori were studying at bachelors level and above in 2012, up from 21% in 2007 (an increase from 17,500 to 21,900 students). And the rate at which Māori complete qualifications has also increased: of Māori who started full-time study at Level 4 or above in 2007, 62% had completed a qualification within five years, compared with a rate of 53% for those who started in 2004. (p.13)

This report provides an analysis of the contribution of wānanga to the goals of the Tertiary Education Strategy, in respect of Māori language, culture and identity and Māori wellbeing.

1.4 Te Kupenga 2013

Te Kupenga 2013 (Statistics New Zealand, 2014a) was a nationally representative survey of 5,549 New Zealand adults (15 years and over) who were of Māori descent and/or identified as belonging to the Māori ethnic group. The survey included a number of questions on social wellbeing, similar to those in the Statistics New Zealand's General Social Surveys, as well as questions on education and on respondents' knowledge of and engagement with Māori language and culture. It provides a unique opportunity to study relationships between education, language, culture and wellbeing for Māori.

Te Kupenga was a post-census survey: a sample of adult Māori was selected from among people who indicated in the 2013 Census that they were of Māori descent or ethnicity, and the survey was conducted within six months of census day (5 March 2013). Te Kupenga 2013 includes some 2013 Census data for the survey respondents.

Statistics New Zealand has made available a confidentialised unit record file (CURF) from the Te Kupenga 2013, and this CURF is the data source for the analyses in this report. The records were confidentialised by removing information which could have identified the individual respondents, and also aggregating some information into broad categories so that individuals cannot be identified by combining items in the data.

Te Kupenga 2013 provides an opportunity to investigate the knowledge and participation of Māori in te ao Māori (the Māori world) in relation to their participation and achievement in the education system. In particular, Te Kupenga provides measures of Māori adults' engagement, knowledge and proficiency in Māori language and culture which are not available in the Ministry's administrative data. Because Te Kupenga also includes educational variables, the Māori language and culture measures can be analysed in relation to these variables.

1.5 Limitations of analysis

The main limitation of this analysis is that it shows associations between variables at a point in time. The analysis is not able to say whether attendance at a wānanga helped achieve the outcomes or whether students with those attributes were more likely to attend wānanga. Determining this would require longitudinal data, which has never been collected in these areas.

A further limitation to the analyses in this report is that they are based on a survey, and so provide estimates rather than precise counts. The size of the data set is also a limit in that many interesting questions of detail (especially those involving combinations of multiple factors) cannot be answered because the relevant set of respondents is too small for a valid statistical analysis.

Another limitation is that many of the questions of necessity are quite general. For example, the one question relating to wānanga asks whether the respondent ever enrolled at a wānanga. The survey did not include further questions on length, type or field of study, whether the respondent was still enrolled or had achieved a qualification at the wānanga, etc. This limits the depth of analysis and the interpretation of the results.

The confidentialising has also limited the level of detail of analyses. For example, rather than data on respondents' age in years, the CURF only provides age in a series of mostly 10 year bands. Different levels of educational qualification are aggregated in a similar way. And while it would be interesting to differentiate between whether respondents attended Māori immersion pre-schools (kōhanga reo) and schools (kura kaupapa Māori and wharekura), the CURF aggregates these all into one category.

2 THE CONTEXT OF LANGUAGE REVITALISATION

KEY FINDINGS

This chapter examines four measures of Māori language revitalisation in Te Kupenga 2013: first language, speaking proficiency, attendance in Māori-medium education, and use of te reo in the home. A key part of the analysis involves comparing measures by year of birth, that is, in birth cohorts.

Māori as first language shows a decline by year of birth to the late 1970s and then a resurgence for those born in the 1980s, to the extent that Māori born between 1979 and 1998 (15-34 year olds in 2013) account for 40 to 50 per cent of first-language speakers of Māori in 2013.

Speaking proficiency shows a more modest stabilisation from the cohort born in the 1960s onwards, as does the extent of speaking te reo in the home.

Most (80 per cent) of first language speakers born between 1979 and 1998 attended Māori-medium education (in the form of kōhanga reo, kura kaupapa Māori or wharekura), although most students (76 per cent) in Māori-medium education were second-language speakers. For subsequent analyses, first language and Māori-medium are combined as 'Māori language background'. Those with Māori language background were much more likely to speak te reo regularly in the home.

This chapter provides background on the progress of Māori language revitalisation, as revealed in the data from Te Kupenga, in order to understand language and cultural outcomes for Māori who have attended wānanga. It provides background to examining the role of wānanga in developing the Māori language skills of individual learners, as well as in supporting the revitalisation of the language. Statistics New Zealand (2014e, f) has found, from analysis of Te Kupenga, that there is a strong connection between proficiency in te reo and knowledge of and engagement in Māori culture, and so this chapter also provides background for examining cultural outcomes for wānanga students.

The most well-known statistics relating to te reo Māori are based on the language question which has been part of New Zealand censuses since 1996. This question asks about languages in which a person could have a conversation about a lot of everyday things. The number of Māori people specifying te reo Māori in response to the census question has remained fairly static across censuses, and the percentage of such people within the Māori ethnic group has declined somewhat.

Te Kupenga is one of a number of surveys which have asked other questions about knowledge and use of te reo Māori. These surveys have produced results which at first sight seem to contradict the census data; however on further analysis they indicate that the census data does not tell the whole story. Instead, these surveys show that the state of the language, though still precarious, has been improving in some respects, and that in general the picture is complex. Statistics New Zealand (2014d) has published a detailed discussion of Māori language data based on different language measures and different data sources.

2.1 First language

First language is part of the demographic section of the Te Kupenga survey, and the questions are worded in English and Māori as follows:

Now thinking about languages that you may be familiar with, what is the language that you first learned in childhood and still understand?

Ināianeī, whakaarohia ngā reo e waia ana koe, he aha te reo tuatahi i ako ai koe i tō tamarikitanga, e mārāma tonu ana koe?

The response options are English/Ingarihi, Māori and other/he mea anō. The English and 'other' responses are aggregated in the CURF.

Based on Te Kupenga, Statistics New Zealand (2014e) estimates that the number of Māori aged 15 and over whose first language was te reo Māori totalled 38,000, representing 8 per cent of the Māori ethnic group aged 15 and over.

Te Kupenga shows a decline over time in the percentage of first-language speakers among those born up to the 1970s, with an increase among those born in the 1980s and an apparent stabilisation for those born in the 1990s (Figure 1). This is in line with earlier observations based on the Adult Literacy and Life Skills (ALL) Survey 2006 and the Health of the Māori Language Survey 2006 (Lane, 2014).

The increase in percentage of first-language speakers indicates that more parents or grandparents are passing on the language to their children or grandchildren, that is, intergenerational language transmission. The revival of intergenerational language transmission is considered to be the key factor required for language revitalisation (Fishman, 1991, 2001).

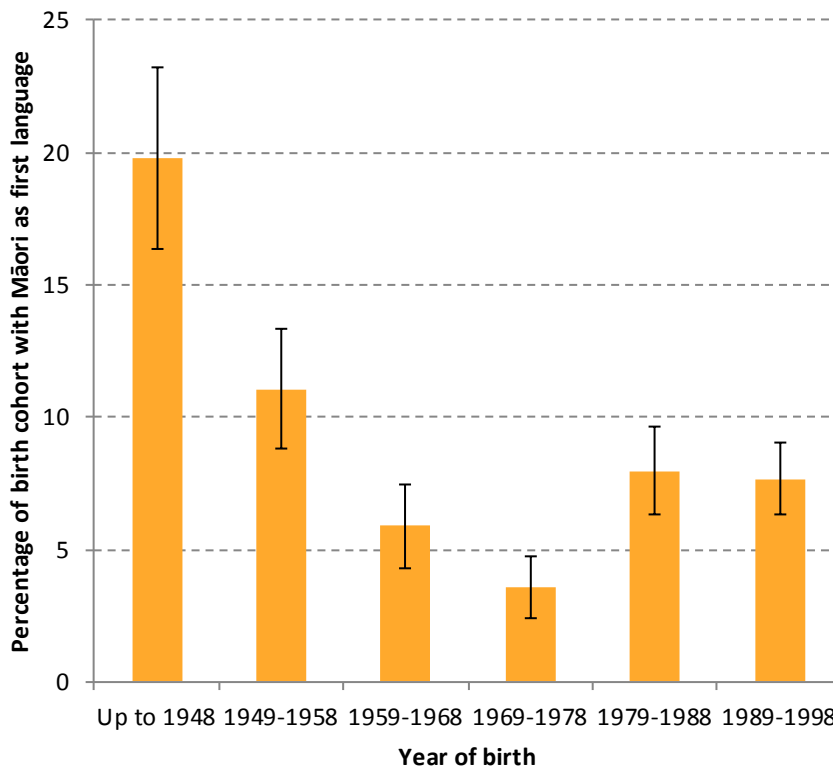
Statistics New Zealand (2014e) has found from Te Kupenga that:

te reo Māori was often spoken at home to children, particularly pre-school and primary school-aged children. Over 80 per cent of Māori adults living with pre-school children spoke some te reo Māori to them, including 18 per cent who spoke te reo equally with another language or more often to them.

This confirms an earlier observation based on the ALL Survey 2006 (Lane, 2014). The continuing focus of many whānau on speaking te reo to pre-school children provides the conditions for intergenerational language transmission to be maintained.

Figure 1

Percentage of Māori ethnic group with te reo Māori as first language, by 10-year birth cohorts

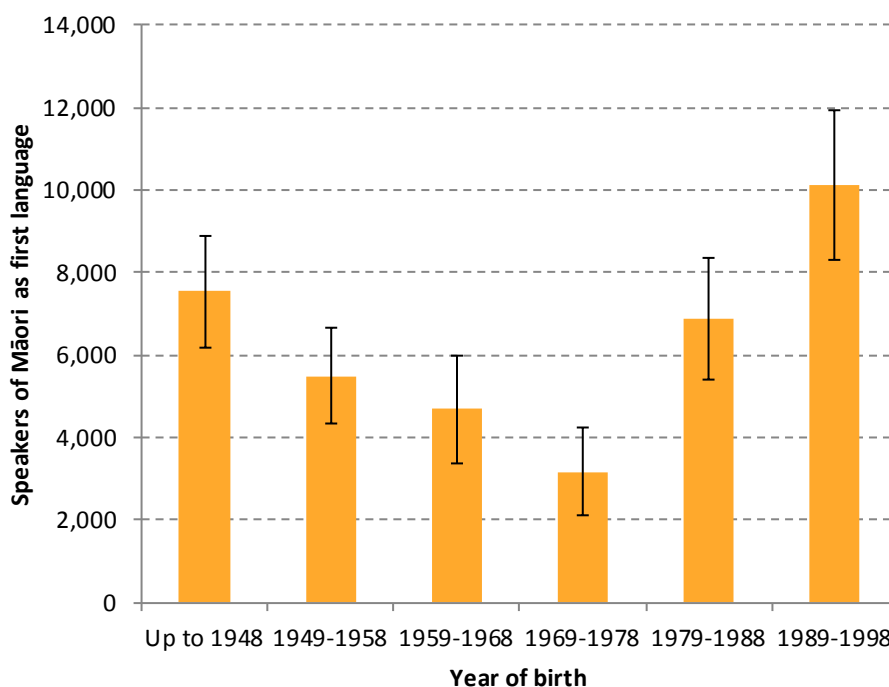


Note: The error bars represent margins of error at the 90% confidence level. See Appendix A for further detail on margins of error.

Because there are more people in the younger cohorts, there are actually larger numbers of first-language speakers in the younger cohorts (Figure 2). Those aged 15 to 34 account for between 40 and 50 per cent of first-language speakers.

Figure 2

Numbers of people in the Māori ethnic group with te reo Māori as first language, by 10-year birth cohorts



However, having te reo as a first language as a child is not a guarantee of being a proficient speaker as an adult (see next section), although there is still a strong association between being a first-language speaker and being a proficient adult speaker (Statistics New Zealand, 2014e).

2.2 Speaking proficiency

The questions on speaking proficiency in Te Kupenga are worded in English and Māori as follows:

How well are you able to speak Māori in day-to-day conversation?

- very well (I can talk about almost anything in Māori)
- well (I can talk about many things in Māori)
- fairly well (I can talk about some things in Māori)
- not very well (I can only talk about simple/basic things in Māori)
- no more than a few words or phrases

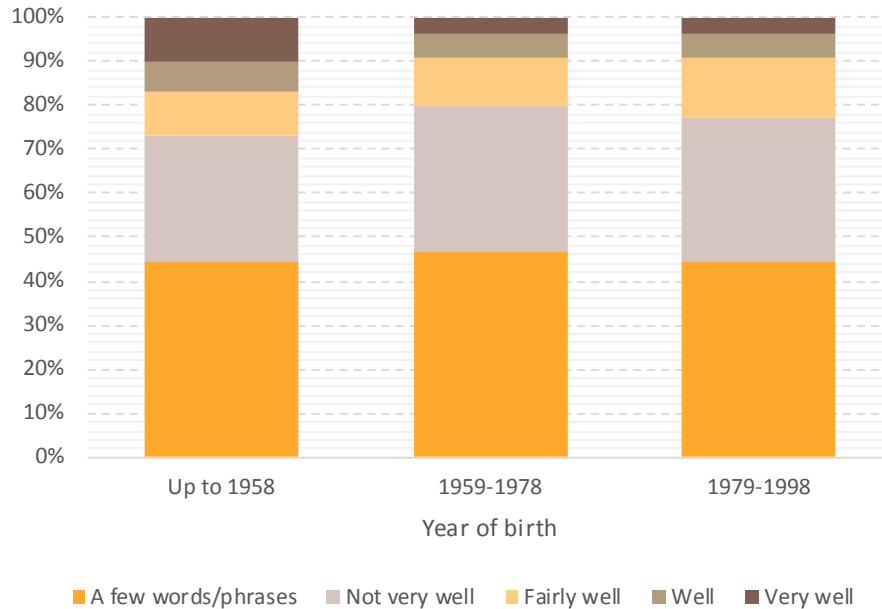
He pēhea tō kaha ki te kōrero Māori i ngā kōrero o ia rā?

- he pai rawa atu
- he pai
- he āhua pai
- kāore i te tino pai
- kāore i tua atu i ētahi kupu noa iho ētahi kīanga rānei

Figure 3 shows the distribution of speaking proficiency by year of birth. Twenty-year rather than 10-year birth cohorts are used here (and subsequently) in order to reduce the impact of sample errors on comparisons.

Figure 3

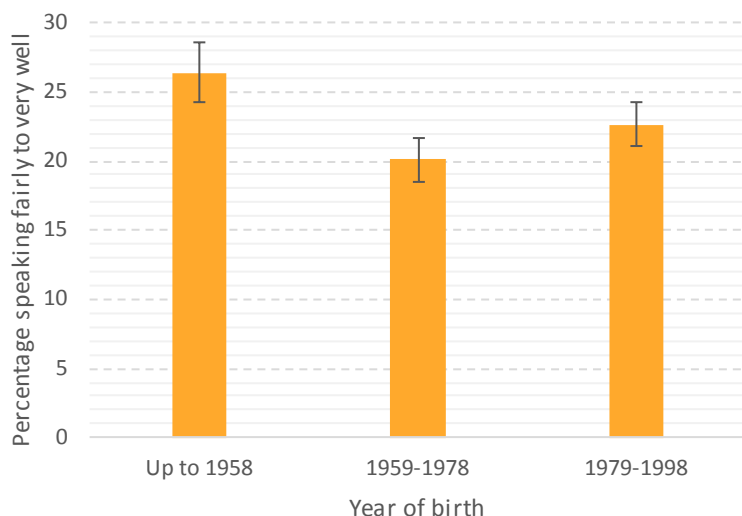
Proficiency in speaking te reo Māori in the Māori ethnic group, by 20-year birth cohorts



The percentage of proficient speakers (well and very well) declined to the 1960s then stabilised (Figure 3). The same pattern is evident for speakers with moderate to high speaking proficiency (i.e. those who spoke te reo fairly well, well or very well) when we take into account the margins of error (Figure 4). Analyses of speaking proficiency in this report cover the range from fairly to very well because aggregating these categories provides more statistics with smaller sample errors, even though, from a language revitalisation point of view, the ‘well’ and ‘very well’ categories are particularly important.

Figure 4

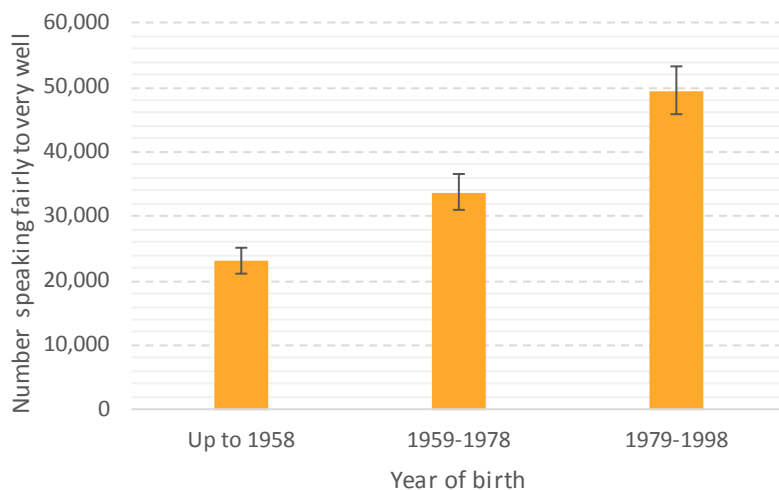
Percentage speaking te reo Māori fairly well, well and very well in the Māori ethnic group, by 20-year birth cohorts



As there are more people in the younger cohorts, there are more moderately to highly proficient speakers in those cohorts, as was the case with the numbers of first-language speakers (Figure 5).

Figure 5

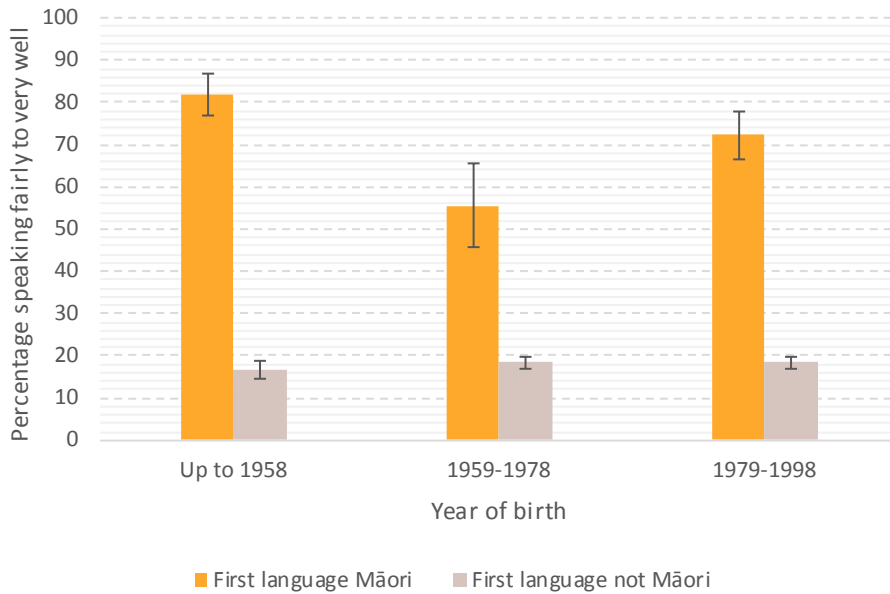
Numbers of people speaking te reo Māori fairly well, well and very well in the Māori ethnic group, by 20-year birth cohorts



First-language speakers are not necessarily proficient adult speakers, especially in the younger cohorts (Figure 6). This points to the need for maintenance and development of language as a child grows up. However, first-language speakers of te reo are much more likely to be proficient speakers as adults than Māori who were first-language speakers of other languages.

Figure 6

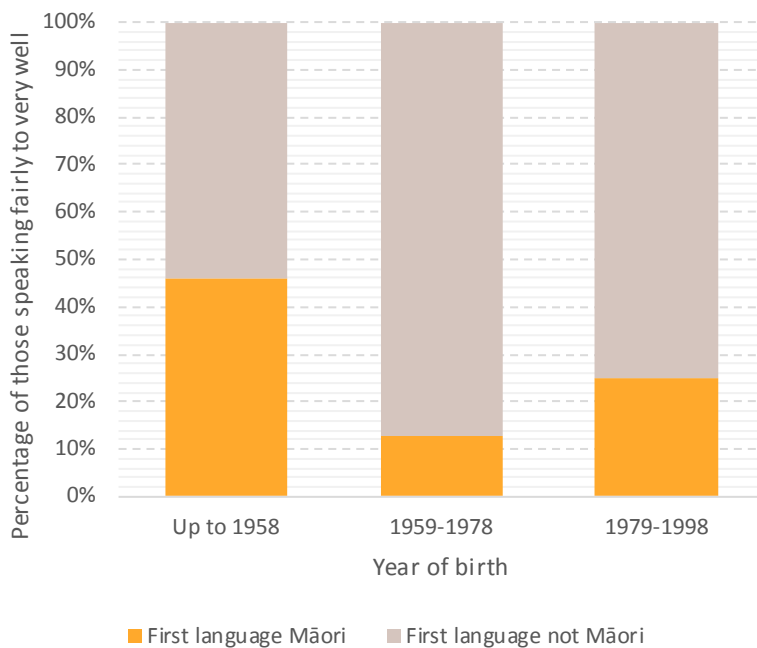
Percentage speaking te reo Māori fairly well, well and very well in the Māori ethnic group, by first language and 20-year birth cohorts



In the oldest birth cohort, first-language speakers accounted for almost half of speakers with moderate to high proficiency, while in the middle-aged cohort the great majority of such speakers were second-language speakers. In the youngest cohort, first-language speakers made up about a quarter of speakers with moderate to high proficiency (Figure 7).

Figure 7

First language as percentage of those speaking te reo Māori fairly well, well and very well in the Māori ethnic group, by 20-year birth cohorts



2.3 Kōhanga reo, kura kaupapa Māori and wharekura

The question on kaupapa Māori education Te Kupenga is expressed in English and Māori as follows:

Have you ever been enrolled in any of these? Select all that apply.

- kōhanga reo
- kura kaupapa / wharekura
- wānanga
- none of these

Ko tēhea o ēnei kura e uru ana koe? Me tohu te katoa e hāngai ana.

- kōhanga reo
- kura kaupapa /wharekura
- wānanga
- korekau o ēnei

The first two response categories (kōhanga and kura kaupapa/wharekura) are grouped together in Te Kupenga CURF. This single category thus covers a wide range of experience of Māori-medium education, from a short time at kōhanga reo up to the full span of pre-school, primary and secondary education.

Te Kupenga does not provide information on whether respondents attended Māori-medium or bilingual units in mainly English-medium schools. This is a significant omission. In 2013, there were 6,400 students in kura kaupapa Māori and 15,800 in classes in other types of school where 50 per cent or more of the instruction was through the medium of te reo Māori.

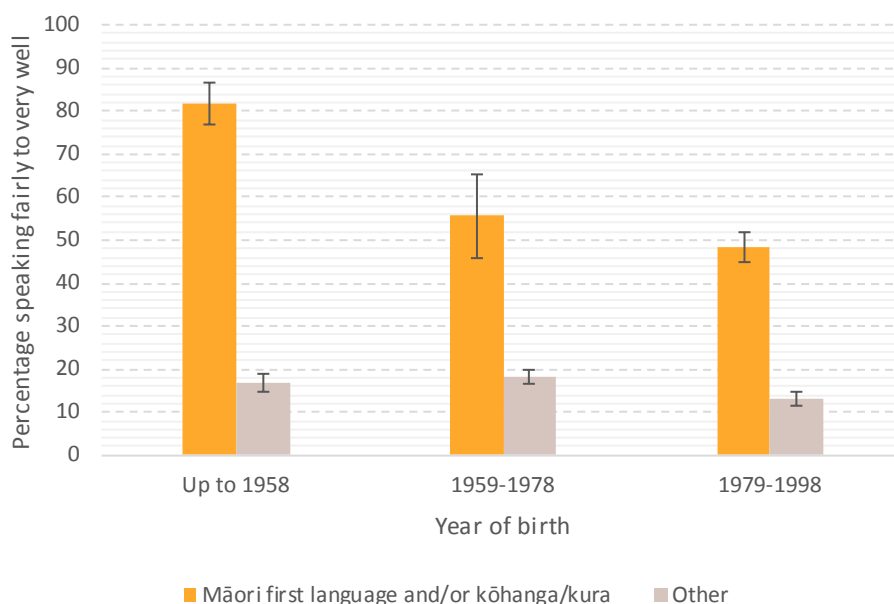
The great majority (80 per cent) of first-language speakers in the 1979-1998 birth cohort went to at least one of kōhanga reo, kura kaupapa Māori or wharekura. But first-language speakers accounted for only 24 per cent of Māori learners at these institutions, that is, most learners were second-language speakers.

There was only a small number of first-language speakers of Māori in the 1979-1998 birth cohort who did not attend one of kōhanga reo, kura kaupapa Māori or wharekura. For analytical purposes it has been necessary to aggregate the two categories for the 1979-1998 birth cohort, that is, having Māori as first language, and having been enrolled at one of kōhanga reo, kura kaupapa Māori or wharekura. This aggregated category is referred to here as 'having Māori language background'. See Appendix A for further details relating to this variable.

Figure 8 compares the percentage of adult Māori in three birth cohorts with moderate to high speaking proficiency in te reo, according to Māori language background. Those with Māori language background had a much higher rate of moderate to high speaking proficiency than those without, especially in the oldest cohort.

Figure 8

Percentage speaking te reo Māori fairly well, well and very well in the Māori ethnic group, by language background and 20-year birth cohort



2.4 Language use in the home

Respondents to Te Kupenga were asked about the main language they spoke in the home, and also about any other languages they spoke regularly in the home. The question on main home language was worded:

What language do you speak most often at home?

He aha te reo ka kaha kōrerohia e koe ki te kāinga?

And the other home language question asked:

What other languages, if any, do you speak on a regular basis at home?/He aha ētahi reo anō, mehemea arā ētahi, ka kaha kōrerohia e koe ki te kāinga?

The English/Ingarihi and Other/He mea anō responses are grouped together in the CURF.

For this analysis, the responses to the two questions are combined: if either the language spoken most often, or another language spoken regularly, at home, is Māori, then that is counted as speaking Māori regularly at home. Te Kupenga provides an estimate of 110,000 adults (15 and over) in the Māori ethnic group speaking te reo regularly at home, or 22 per cent of Māori adults.

Speaking te reo Māori in the home requires at least one other person at home with some proficiency in te reo, that is, it is not just an individual characteristic, which makes it different from personal speaking proficiency, or first language. This may account for the small percentage of adult Māori who could speak te reo well or very well but did not speak te reo regularly at home (Figure 9). It may also account for the large percentage of adult Māori with relatively low speaking proficiency who did speak te reo regularly at home, in that they may have had a more proficient speaker in the home to stimulate their use of the language.

Figure 9

Proficiency in speaking te reo Māori in the Māori ethnic group aged 15 and over, by home language use

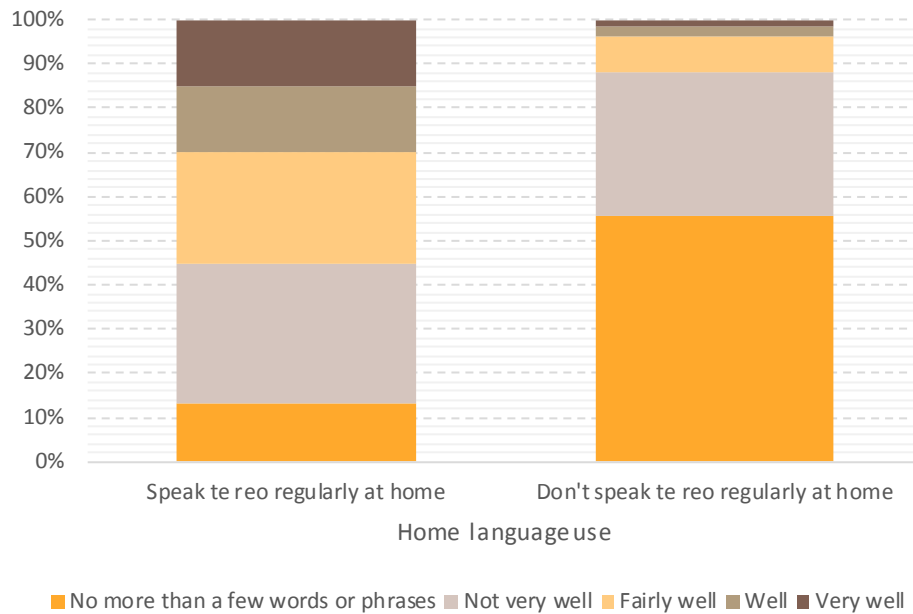
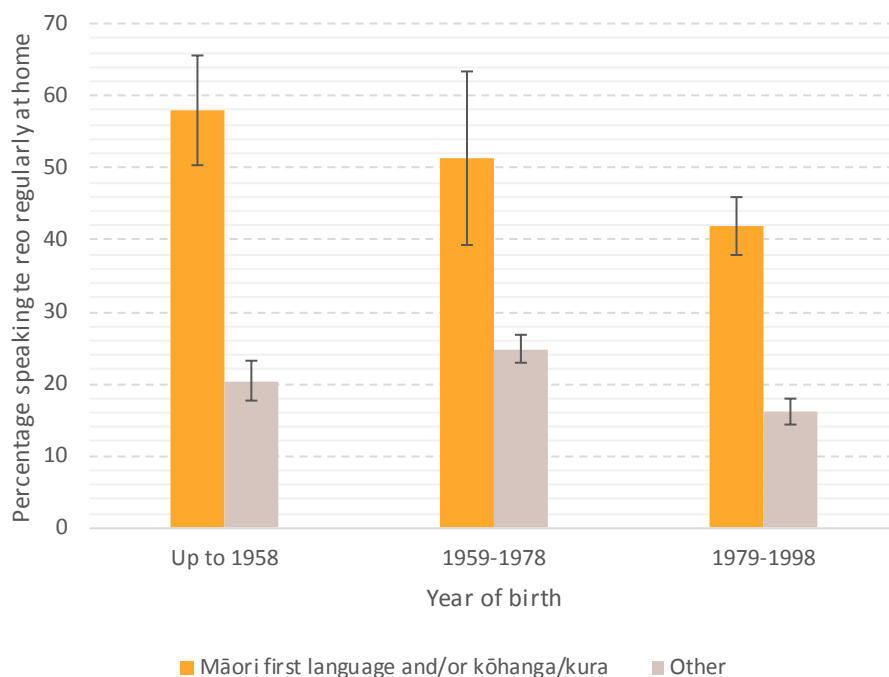


Figure 10 shows the percentage of three birth cohorts speaking te reo regularly in the home, according to Māori language background. Those in the youngest cohort, even those with a Māori language background, may speak te reo at home less than the oldest cohort. This suggests that family transmission of the language is weaker for the youngest cohort than it was for the oldest cohort.

Figure 10

Percentage speaking te reo Māori regularly at home in the Māori ethnic group, by language background and twenty-year birth cohort



3 CHARACTERISTICS OF WĀNANGA STUDENTS

KEY FINDINGS

This chapter provides background information on wānanga students in comparison with other adult Māori.

Compared with other Māori adults, wānanga students tended to be older, were predominantly female, and had larger whānau.

Māori adults tend to live in areas of relatively high deprivation, but wānanga students were even more strongly concentrated in the most deprived neighbourhoods than other Māori adults.

A higher proportion of wānanga students, than other adult Māori were first-language speakers of te reo Māori, or had attended kōhanga reo, kura kaupapa Māori or wharekura.

A greater proportion of wānanga students, than other adult Māori had tertiary qualifications at Level 4 and above, in general, and even after allowing for degree of deprivation and for Māori language background.

Wānanga provide a major pathway to higher qualifications for adult Māori with Māori language background, especially those whose first language is Māori. Over half (56 per cent) of adult Māori whose first language was Māori and who had a tertiary qualification at Level 4 and above were wānanga students.

Current and former wānanga students are identified from the question on kaupapa Māori education quoted earlier in section 2.3. Wānanga students will include those who have completed a qualification, as well as those who are yet to complete, and those who have withdrawn, have dropped out or otherwise have not completed. Wānanga students would also include people whose main tertiary study was not at wānanga, but who have taken a shorter course or lower-level qualification at a wānanga. For brevity, current and former wānanga students are generally referred to as wānanga students in this report.

In this report, wānanga students belonging to the Māori ethnic group are compared with all other members of the Māori ethnic group aged 15 and over. This comparison is somewhat skewed because the 'other' group includes many who have not enrolled in any form of tertiary education, as well as those who have enrolled in tertiary study but not at wānanga. However, it is a relevant comparison to the extent that, for a proportion of Māori, wānanga provide access to tertiary education that would otherwise not be available to them.

In Te Kupenga data it is not possible to identify types of tertiary education organisations other than wānanga, and so it is not possible to compare wānanga students with students of other organisations. However, an approximation to this is possible by confining the analysis to Māori who have a highest qualification at Level 4 or above on the NZQF. Accordingly, a second type of comparison can be made between Māori wānanga students with a qualification at NZQF Level 4 or above and other Māori with a qualification at NZQF Level 4 or above, who must have studied at a tertiary organisation other than a wānanga.

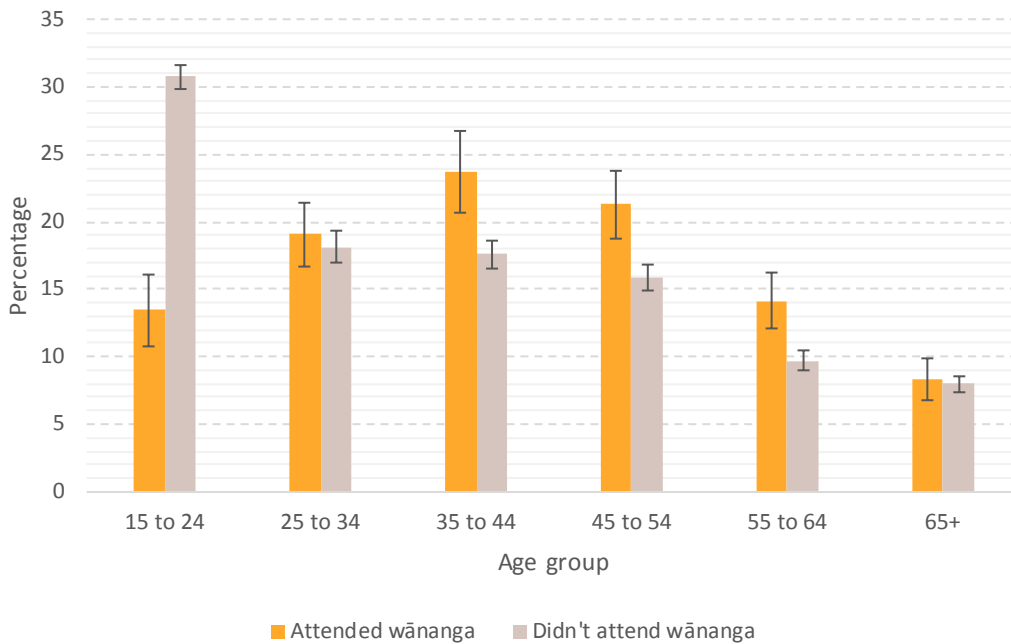
3.1 Demographic characteristics

Age

Wānanga students tended to be older on average than other adult Māori, as shown in Figure 11, with significantly more of the wānanga students in the 35-64 age range, and significantly more of other Māori in the 15-24 age group.

Figure 11

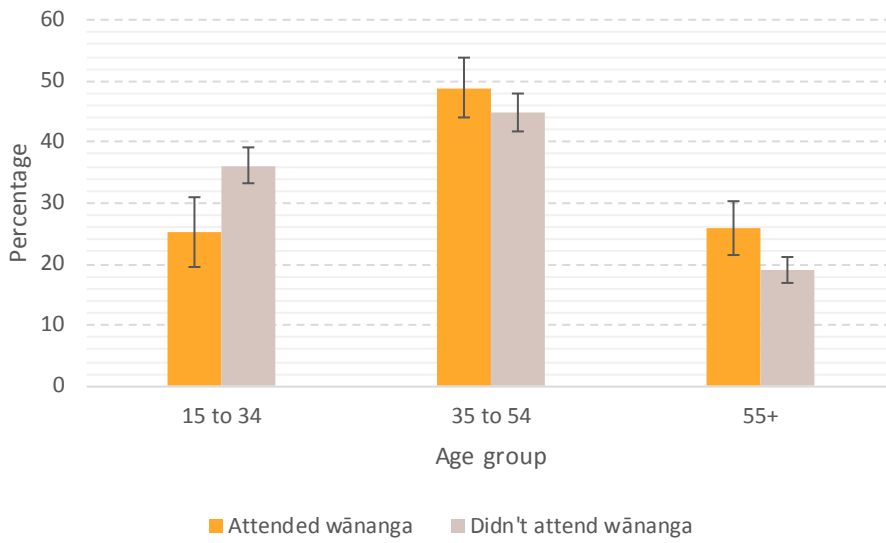
Age group profiles of wānanga students and others in the Māori ethnic group aged 15 and over



For Māori with a qualification at NZQF Level 4 or above, the same tendency for wānanga students to be somewhat older is evident, as can be seen in Figure 12, with significantly more wānanga students aged 55 and over, and fewer aged 15 to 34.

Figure 12

Age group profiles of wānanga students and others among those in the Māori ethnic group with a qualification at NZQF Level 4 or above



Gender

There was a clear gender imbalance among wānanga students, with the majority being female, for the Māori ethnic group aged 15 and over (Figure 13) and for Māori with a qualification at NZQF Level 4 or above (Figure 14).

Figure 13

Gender profiles of wānanga students and others in the Māori ethnic group aged 15 and over

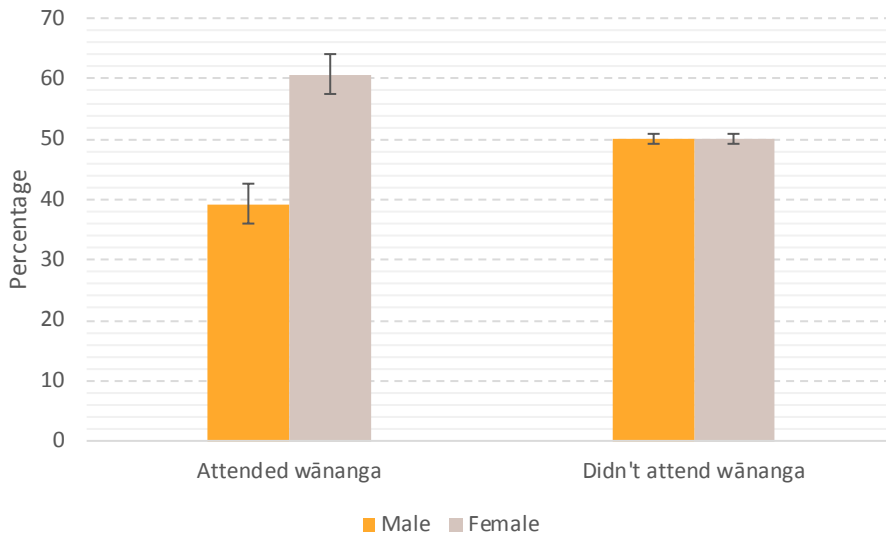
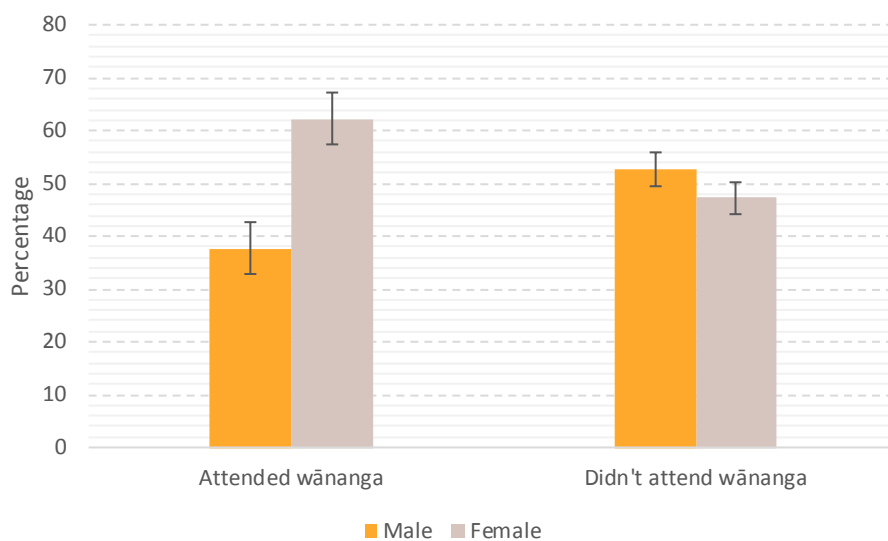


Figure 14

Gender profiles of wānanga students and others among those in the Māori ethnic group with a qualification at NZQF Level 4 or above



Whānau size

The Māori term *whānau* is usually translated into English as 'extended family'. In Te Kupenga, there was a series of questions on whānau wellbeing, with led into the following question:

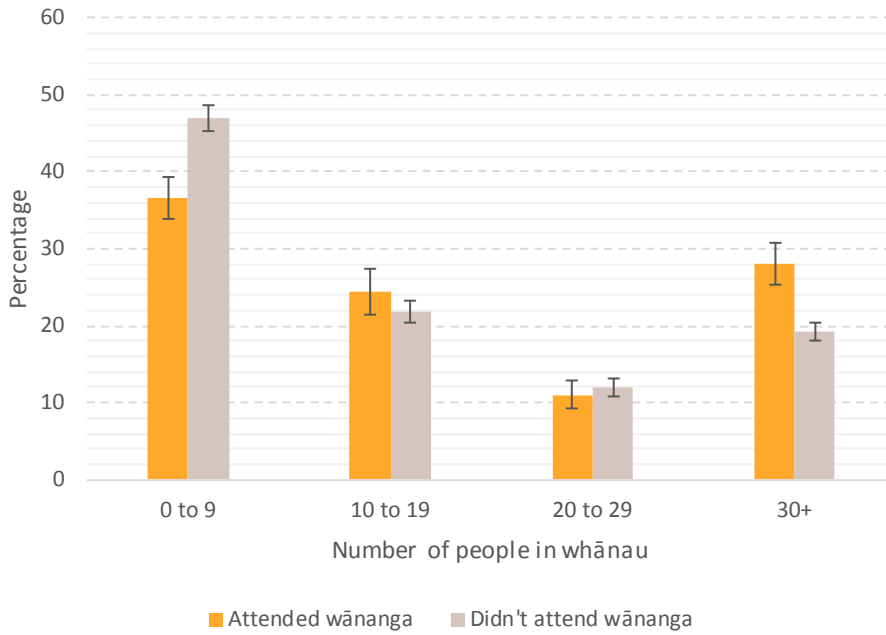
Not including yourself, how many people are in that whānau group that you were thinking about?

Kaua e whakauru mai i a koe, tokohia ngā tāngata kei roto i taua whānau i te whakaarohia nei e koe?

Wānanga students tended to be part of larger whānau with the median whānau size being 12 for wānanga students and 10 for other adult Māori (Figure 15).

Figure 15

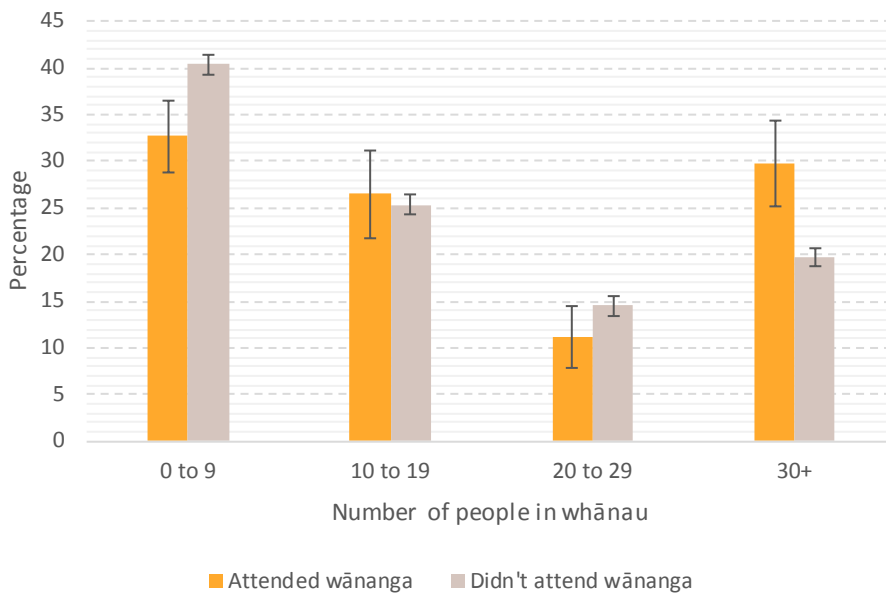
Size of whānau for wānanga students and others in the Māori ethnic group aged 15 and over



Wānanga students with a qualification at NZQF Level 4 or above also tended to be part of larger whānau, for Māori, with the median whānau size being 15 for wānanga students and 12 for other Māori (Figure 16).

Figure 16

Size of whānau for wānanga students and others among those in the Māori ethnic group with a qualification at NZQF Level 4 or above



3.2 Deprivation

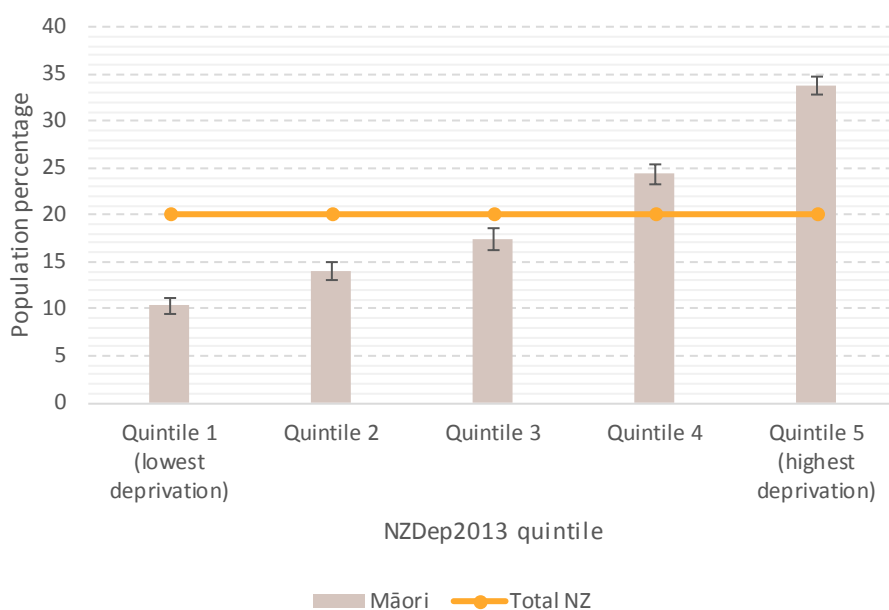
Socioeconomic deprivation of neighbourhood areas can be measured using NZDep2013 (see Appendix A for details). The index looks at factors that include income, unemployment, home ownership and living space, access to transport, and education. For reporting purposes, the total New Zealand population can be divided into five quintiles, which have equal numbers of people, that is, 20 per cent of the population each. Areas in quintile 1 have the least deprivation and areas in quintile 5 have the greatest deprivation.

NZDep2013 should accurately represent the deprivation of the areas Te Kupenga respondents were living in in 2013. Former wānanga students may have been living in different areas when they were studying at wānanga from those they were living in in 2013. However, Morrison and Nissen (2010) found that people who moved addresses between the 2006 and 2013 censuses tended to end up in areas with approximately the same degree of deprivation as those they moved from. Thus NZDep2013 is likely to represent approximately the neighbourhood deprivation for former wānanga students at the time of studying.

Adult Māori tend to live in higher deprivation areas compared with the overall population (Figure 17).

Figure 17

Distribution of deprivation for the Māori ethnic group aged 15 and over and the total New Zealand population



Adult Māori with te reo as their first language or with Māori language background were more concentrated in the highest deprivation quintile:

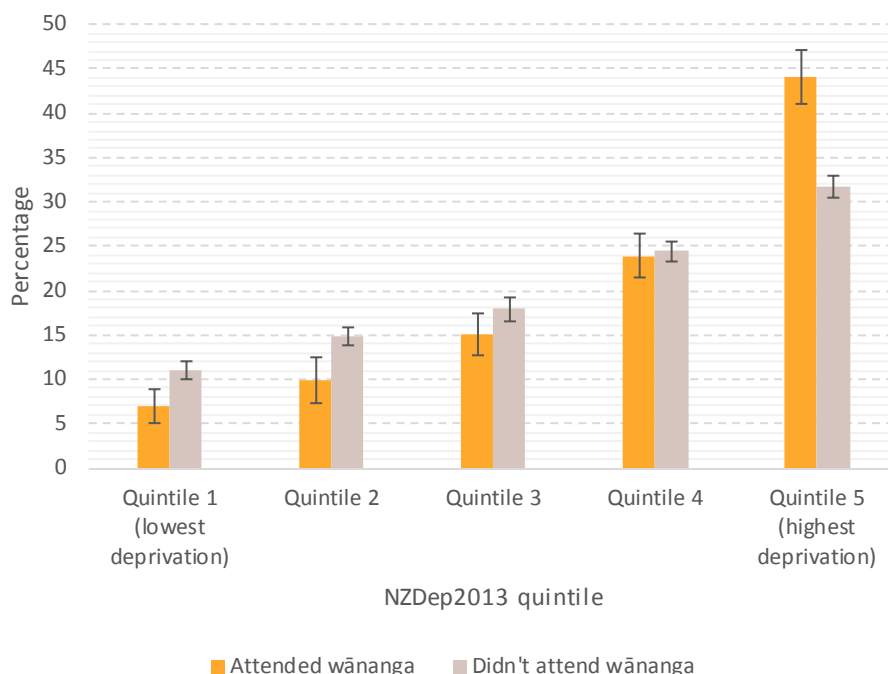
- 53 per cent of those with Māori as first language were in the highest quintile, compared with 32 per cent of other adult Māori.
- 48 per cent of those with a Māori language background were in the highest deprivation quintile, compared with 31 per cent of other adult Māori.

Wānanga students were more likely than other adult Māori to live in the most deprived neighbourhoods: an estimated 44 per cent of current and former wānanga students lived in

the highest deprivation quintile (Figure 18). This indicates extensive reach of wānanga into highly deprived areas.

Figure 18

Deprivation profiles of wānanga students and others in the Māori ethnic group aged 15 and over



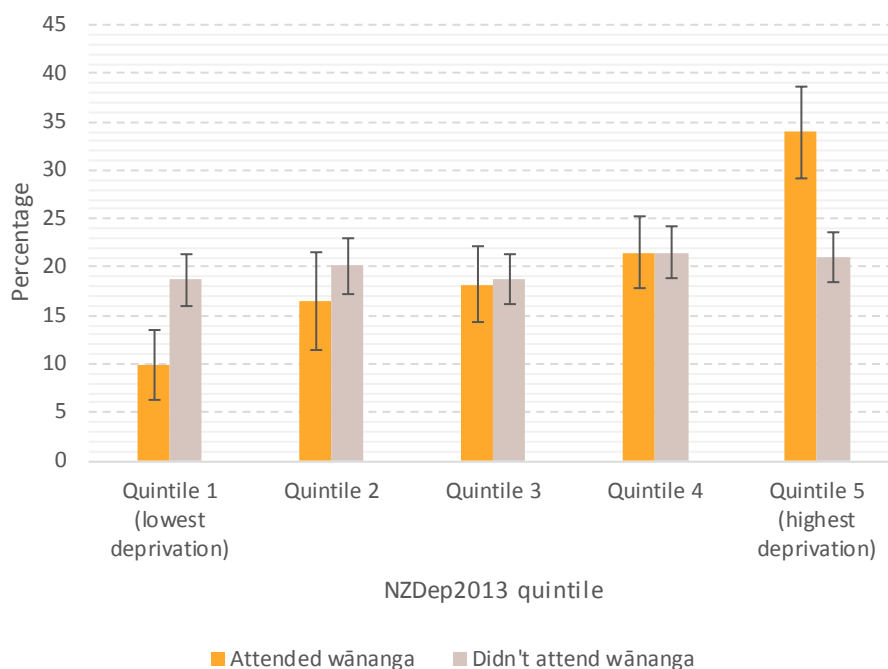
Among Māori with a qualification at NZQF Level 4 or above, those with te reo as first language or with a Māori-language background were more concentrated in the highest deprivation quintile:

- 46 per cent of those with Māori as first language were in the highest quintile, compared with 23 per cent of other Māori with qualifications at NZQF Level 4 or above
- 38 per cent of those with Māori-language background, that is, Māori as a first language or having attended kōhanga and/or kura, were in the highest deprivation quintile, compared with 22 per cent of other Māori with NZQF Level 4 or above.

Figure 19 shows the deprivation profiles for wānanga students and other Māori with a qualification at NZQF Level 4 or above. Comparing this with Figure 18, it can be seen that non-wānanga students in areas of low deprivation were more likely to have such a qualification, and those in areas of high deprivation much less likely. On the other hand, the distribution of wānanga students qualified at Level 4 or above is fairly similar to the distribution of wānanga students in terms of attendance (although somewhat less in quintile 5), indicating that degree of deprivation is less strongly related to qualification completion for wānanga students (see also section 3.4).

Figure 19

Deprivation profiles of wānanga students and others among those in the Māori ethnic group with a qualification at NZQF Level 4 or above



3.3 Language background

Wānanga students were more likely than other adult Māori to have Māori as their first language or to have a Māori language background.

For the Māori ethnic group aged 15 and over, 15 per cent of wānanga students had Māori as their first language, while the corresponding figure for other adult Māori was 7 per cent. Conversely, of adult Māori whose first language was Māori, 32 per cent had enrolled at a wānanga at some point, compared with 15 per cent of adult Māori without Māori as their first language.

For Māori with a qualification at NZQF Level 4 or above, 16 per cent of wānanga students had Māori as their first language, while the corresponding figure for other Māori was 4 per cent. Conversely, of Māori with Māori as their first language and a qualification at Level 4 or above, 56 per cent had attended a wānanga, compared with 24 per cent of other Māori with a qualification at Level 4 or above.

For the Māori ethnic group aged 15 and over, 23 per cent of wānanga students had Māori as their first language and/or had attended kōhanga and/or kura, while the corresponding figure for other adult Māori was 16 per cent. Conversely, of adult Māori whose first language was Māori, or who had attended kōhanga and/or kura, 23 per cent had enrolled at a wānanga at some point, compared with 15 per cent of adult Māori without such Māori language background.

For Māori with a qualification at NZQF Level 4 or above, 21 per cent of wānanga students had Māori as their first language and/or had attended kōhanga and/or kura, while the corresponding figure for other Māori was 11 per cent. Conversely, of Māori with Māori

language background and a qualification at Level 4 or above, 40 per cent had attended a wānanga, compared with 24 per cent of other Māori with a qualification at Level 4 or above.

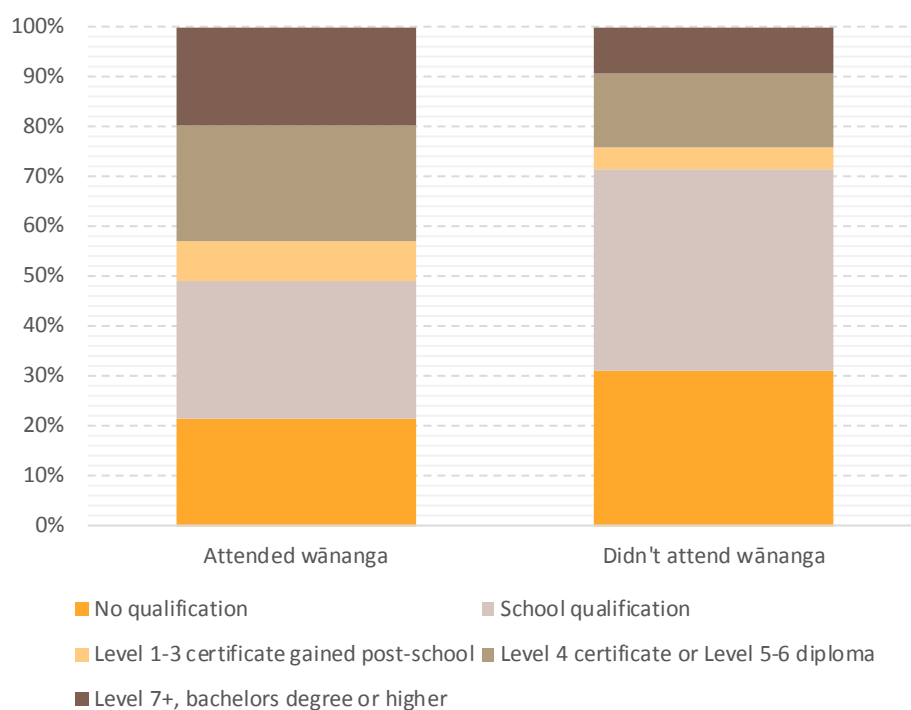
3.4 Highest qualification

Highest qualification in Te Kupenga set is based on respondents' answers to the 2013 Census. For those who attended wānanga at some stage, it is not possible to determine from Te Kupenga whether their highest qualification was obtained at a wānanga or through other tertiary study.

Figure 20 refers to the Māori ethnic group aged 15 and over as a whole, and compares the highest qualification obtained by wānanga students with that for other adult Māori. A considerably greater percentage of wānanga students (43 per cent) had qualifications at NZQF Level 4 and above, than other adult Māori (24 per cent).

Figure 20

Highest qualification for wānanga students and others in the Māori ethnic group aged 15 and over



Given that lack of qualifications is a defining characteristic of high deprivation areas, and wānanga students are much more likely than other adult Māori to live in the highest deprivation neighbourhoods, the comparison between wānanga students and other adult Māori can be clarified by factoring in degree of deprivation. In Figure 21, high deprivation refers to NZDep2013 quintile 5, and lower deprivation to quintiles 1 to 4. Wānanga students were much more likely than other adult Māori to have qualifications at Level 4 or above in both high and lower deprivation areas.

Figure 21

Percentage with qualification at NZQF Level 4 or above, for wānanga students and others in the Māori ethnic group, by degree of deprivation

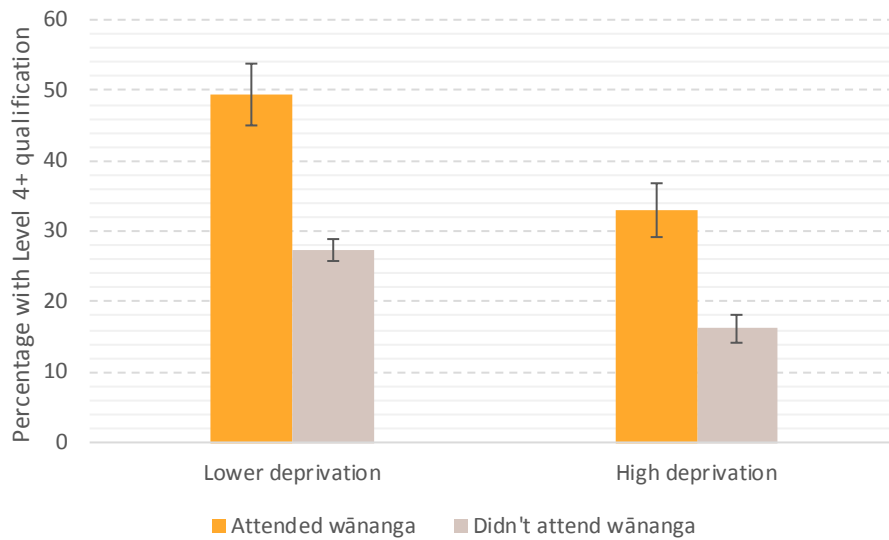
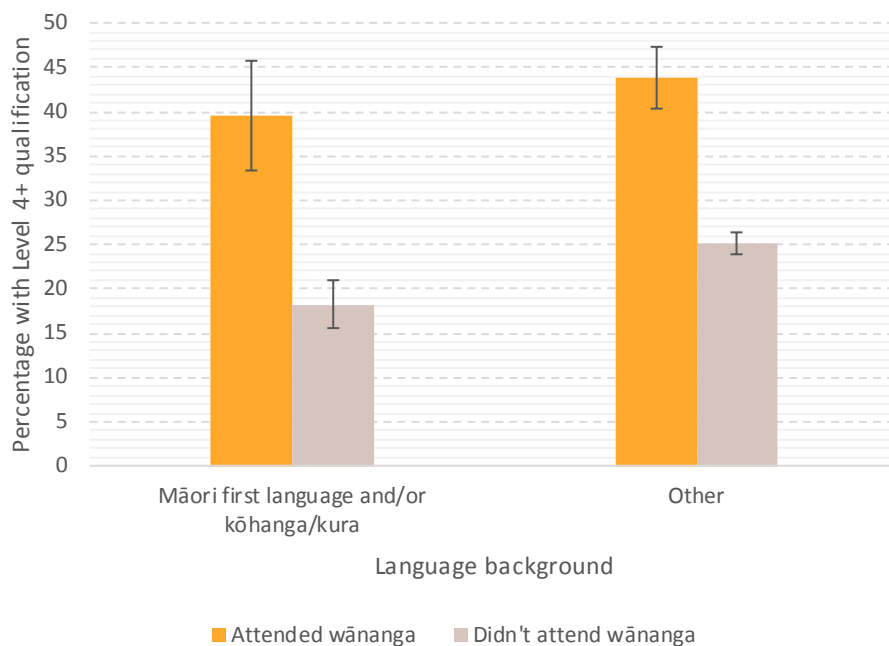


Figure 22 shows a similar comparison, taking language background into account. For wānanga students, there was no significant difference in the percentage with a qualification at Level 4 or above according to language background. However, more other adult Māori achieved this level of qualification than those with a Māori language background.

Figure 22

Percentage with qualification at NZQF Level 4 or above, for wānanga students and others in the Māori ethnic group, by language background



4 WĀNANGA STUDENTS: LANGUAGE PROFICIENCY AND USE

KEY POINTS

Two measures of te reo Māori outcomes are explored in this chapter: respondents' speaking proficiency and whether respondents spoke te reo Māori regularly in the home.

For both measures, current and former wānanga students were more likely than other adult Māori to have positive outcomes (i.e. to have moderate to high speaking proficiency and to speak te reo regularly in the home).

This difference in favour of wānanga students applied to all wānanga students irrespective of language background. It was also evident for Māori with tertiary qualifications at NZQF Level 4 and above.

Thus study at wānanga is consistently associated with higher levels of language-speaking proficiency and use of Māori at home.

Chapter 2 provides background information from Te Kupenga on te reo Māori, on the processes of revitalisation of the language, and on the contribution of kōhanga reo, kura kaupapa Māori and wharekura. This chapter explores this in relation to wānanga students.

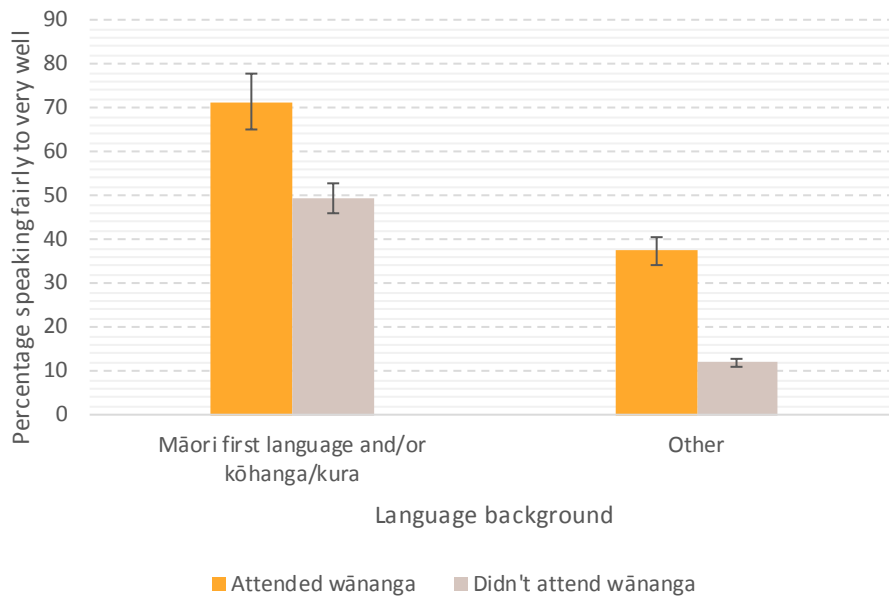
4.1 Speaking proficiency

Statistics New Zealand (2014e) has developed a statistical model which identifies factors strongly related to proficiency in speaking te reo Māori. These factors include having Māori as first language, attending kōhanga reo, kura kaupapa Māori or wharekura, and attending wānanga. Having attended kōhanga/kura/wharekura *and* wānanga is particularly powerfully associated with high speaking proficiency.

Figure 23 compares the percentage of wānanga students with moderate to high proficiency in speaking te reo with that of other adult Māori while taking into account language background. In line with Statistics New Zealand's model, wānanga students were more likely to have moderate to high proficiency than other adult Māori, and this differential was apparent even for those with Māori as first language or who had attended kōhanga reo, kura kaupapa Māori or wharekura.

Figure 23

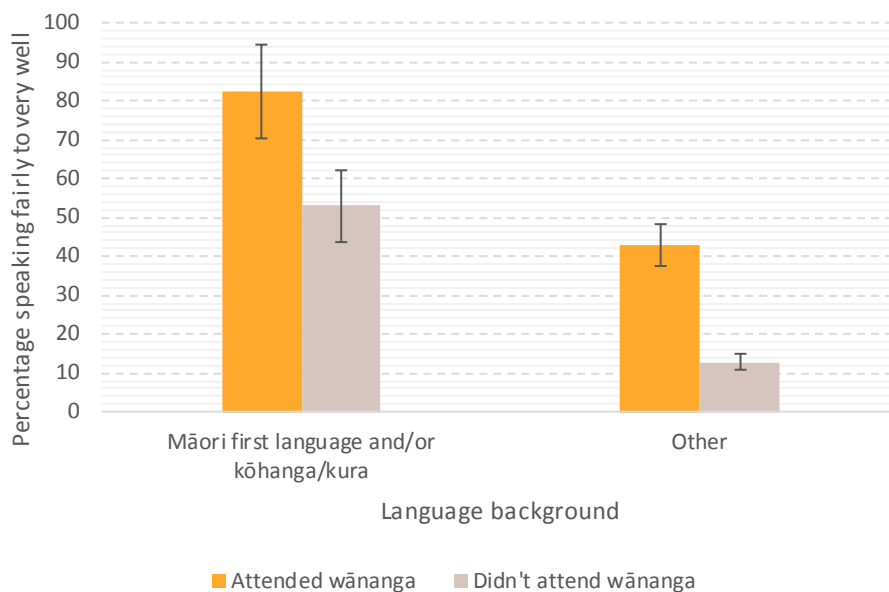
Percentage speaking te reo Māori fairly well, well and very well in the Māori ethnic group aged 15 and over, by language background and wānanga study



When we restrict the comparison to those with a qualification at Level 4 or above (see Figure 24), wānanga students were still more likely to have moderate to high proficiency than other Māori, when analysed by language background. And as in Figure 23, this significant difference was apparent even for those with Māori as first language or who had attended kōhanga reo, kura kaupapa Māori or wharekura.

Figure 24

Percentage speaking te reo Māori fairly well, well and very well, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by language background and wānanga study

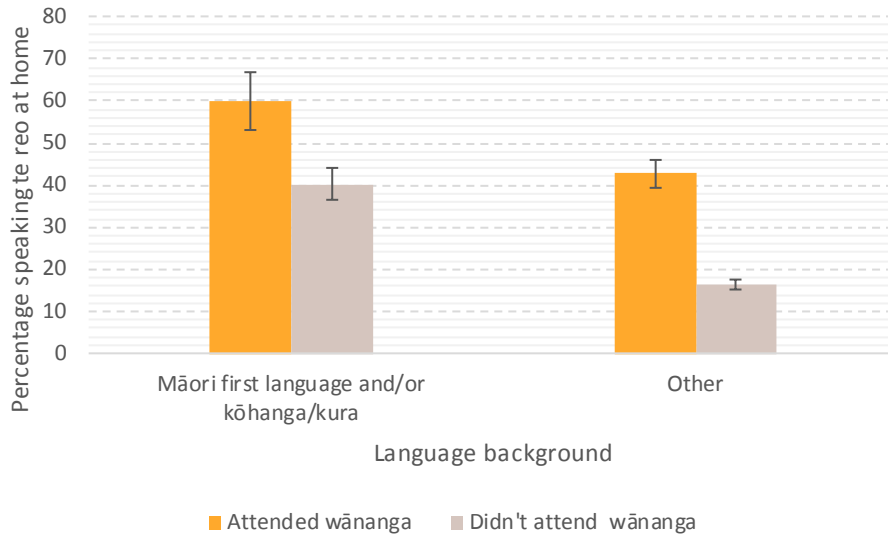


4.2 Language use in the home

A greater percentage of wānanga students than other adult Māori spoke te reo Māori in the home, even among those with a Māori language background, as can be seen in Figure 25.

Figure 25

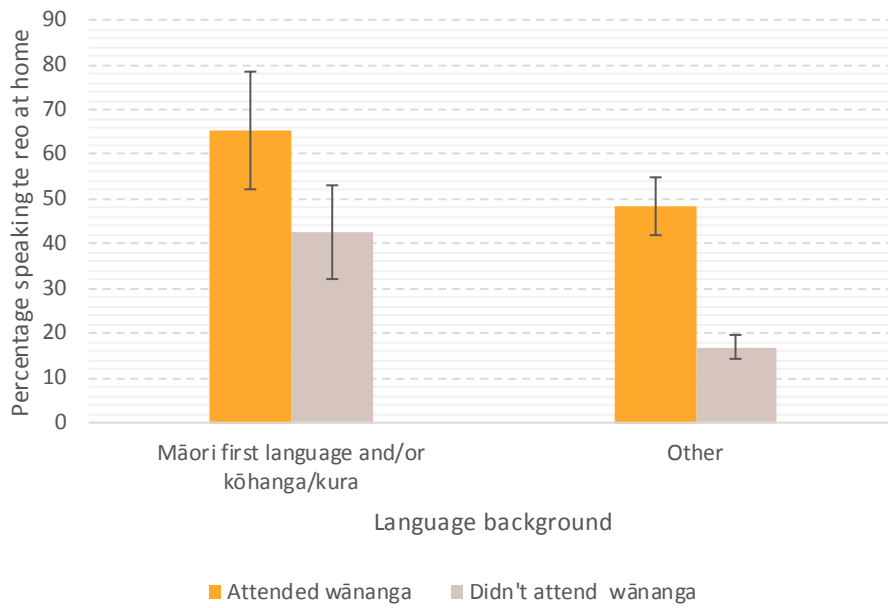
Percentage speaking te reo Māori regularly at home in the Māori ethnic group aged 15 and over, by language background and wānanga study



For Māori with a qualification at Level 4 or above, there is a similar pattern. Among those without a Māori language background, wānanga students are clearly much more likely to speak te reo regularly in the home. On the other hand, for those with a Māori language background, the estimated percentage is greater for wānanga students; but taking the margins of error into account, it is not clear that there is a significant difference between wānanga students and other Māori.

Figure 26

Percentage speaking te reo Māori regularly at home, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by language background and wānanga study



5 WĀNANGA STUDENTS: CULTURE AND IDENTITY

KEY POINTS

This chapter examines four indicators of Māori cultural knowledge and identification: evaluation of the importance of Māori culture, knowledge of cultural identifiers, exploration of whakapapa and possession of tā moko.

In each case, wānanga students showed greater knowledge and identification with Māori culture than other Māori adults, when taking into account students' background in the Māori language. A point to note is that a majority of all adult Māori had explored their whakapapa in the last 12 months. For Māori with tertiary qualifications at Level 4 and above, the same general patterns were evident.

Each of these areas may reflect selection of Māori students who attend wānanga, that is, that Māori who are stronger in these areas are more likely to choose to study at wānanga. They may also reflect the outcomes of learning at wānanga. It is likely that they reflect both.

Te Kupenga 2013 included an extensive set of questions relating to Māori culture. Responses to a small selection of these questions form the basis of this chapter.

In all sections in this chapter, wānanga students show more cultural knowledge and engagement than other adult Māori, even for those with Māori language backgrounds.

5.1 Importance of culture

Te Kupenga included the following questions on the importance of Māori culture:

Thinking about your life as a whole, how important is it for you to be involved in things to do with Māori culture?

- very important
- quite important
- somewhat important
- a little important
- not at all important

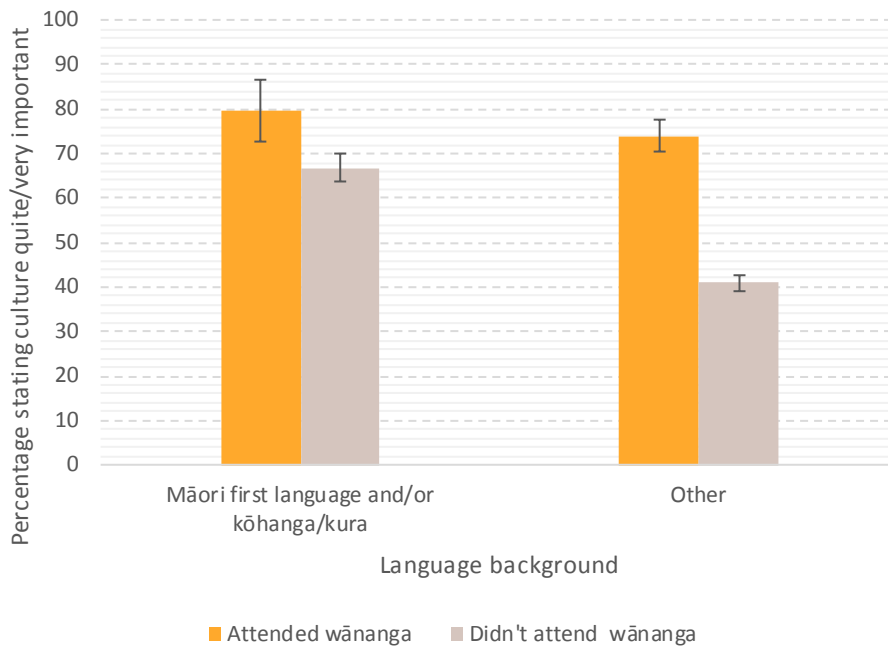
Whakaaro ake ki tōu ake oranga, pēhea nei tō tino kaingākau ki te whakauru atu ki ngā kaupapa e pā ana ki te ahurea Māori?

- he mea tino nui
- he mea āhua nui
- he mea nui
- he paku nei ōna pānga
- kāore ōna pānga

Figure 27 compares responses to this question for the Māori ethnic group aged 15 and over, in terms of the percentages who responded that Māori culture was quite or very important. A significantly greater percentage of wānanga students than other adult Māori gave one of these responses, even for those with a Māori language background (i.e. with Māori as first language, or having attended kōhanga or kura).

Figure 27

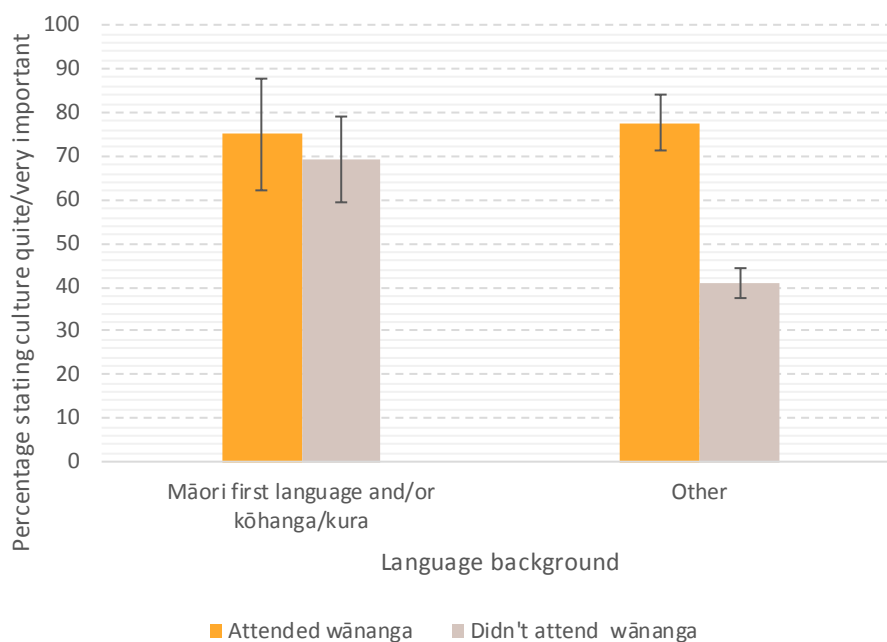
Percentage stating that Māori culture is quite important or very important to them, in the Māori ethnic group aged 15 and over, by language background and wānanga study



When the analysis is restricted to Māori with a qualification at Level 4 or above (Figure 28), the clear difference is between, on the one hand, wānanga students and/or those with Māori language background, and, on the other, those without Māori language background who did not attend wānanga.

Figure 28

Percentage stating that Māori culture is quite important or very important to them, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by language background and wānanga study



These differences could reflect a selection factor, that is, that Māori who value Māori culture are more likely to attend wānanga. Or they could reflect an outcome of the learning at wānanga, which promotes the value of Māori culture. It is likely that they reflect both.

5.2 Knowledge of cultural identifiers

Te Kupenga includes the following questions about traditional ways of locating a Māori individual in a cultural space:

Which of these do you know?

- your iwi or tribe
- your hapū or sub-tribe
- your maunga or mountain
- your awa, moana, river or water
- your waka or canoe
- your tipuna, tupuna or ancestor

Ko ēhea o ēnei e mōhio ana koe?

- tō iwi
- tō hapū
- tō maunga
- tō awa, tō moana, tō wai
- tō waka
- tō tipuna, tupuna rānei

These six items form the basis for declarations of identity known as pepeha. In Figures 29 and 30, knowledge of all elements of pepeha is used as the measure of knowledge of these cultural identifiers. For both the Māori ethnic group as a whole and those with a qualification at Level 4 or above, wānanga students were significantly more likely to know all items than other adult Māori, even for those with Māori language background.

Figure 29

Percentage knowing all elements of pepeha, in the Māori ethnic group aged 15 and over, by language background and wānanga study

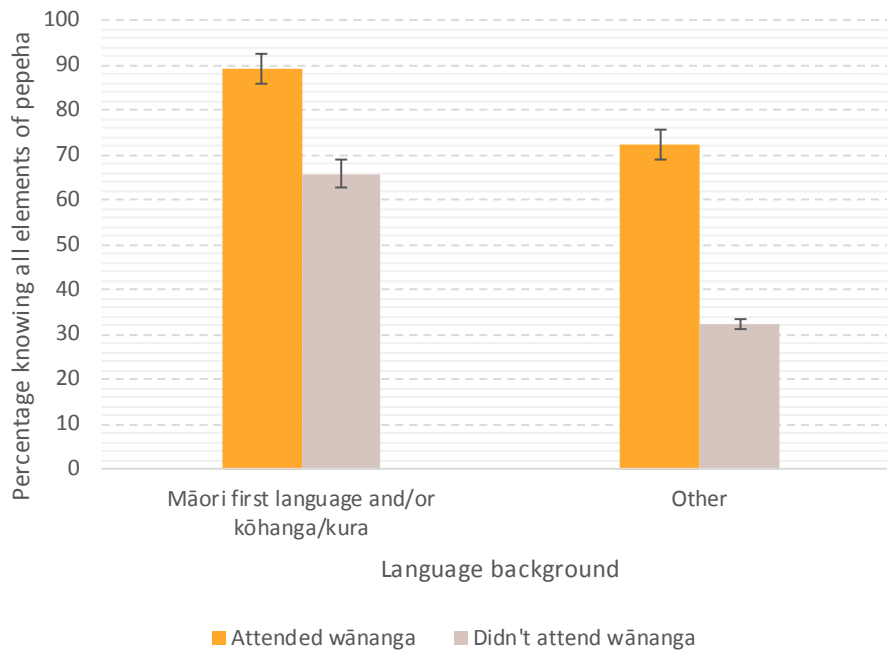
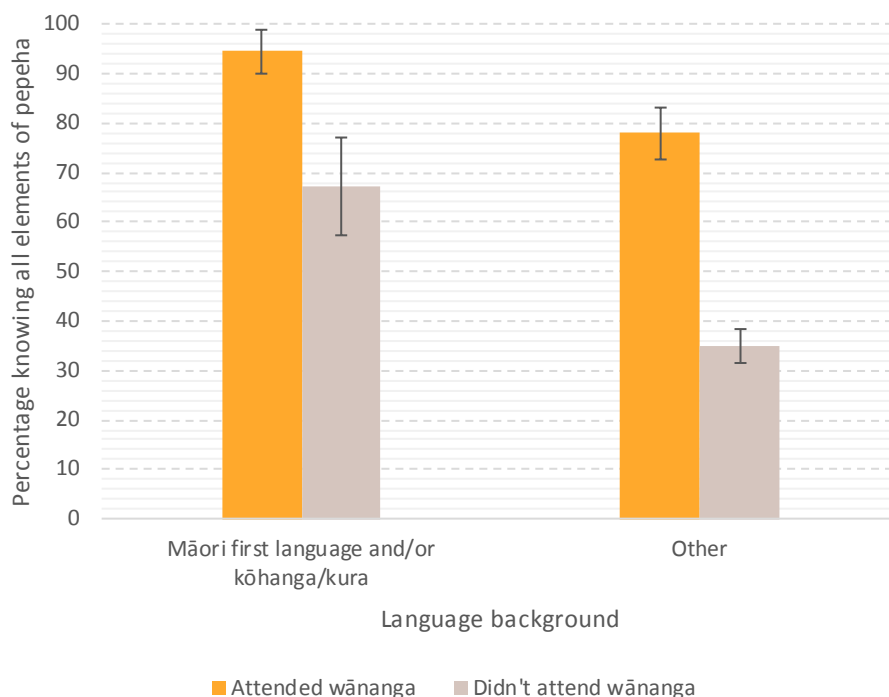


Figure 30

Percentage knowing all elements of pepeha, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by language background and wānanga study



As with the importance of Māori culture, knowing pepeha may be either a selection factor or an outcome of study. Building cultural and personal identity through pepeha is a basic element of pedagogy in wānanga. So while those who know their pepeha may be more likely to attend wānanga, greater knowledge is also likely to be an outcome of wānanga study.

5.3 Exploring whakapapa

The analyses in this section are based on one question out of a set asking about learning or participating in various cultural activities. The relevant wording in Te Kupenga is:

Have you done any of these things in the last 12 months?

- discussed or explored your family history or whakapapa?

Nā i roto i ngā marama 12 kua pahure, kua mahia e koe ētahi o ēnei kua whakarārangiā?

- kua matapakia, kua tūhuratia e koe tō whakapapa?

Figures 31 and 32 compare wānanga students and other adult Māori responses to this question. As was the case for knowledge of pepeha, both for the Māori ethnic group aged 15 and over as a whole and for those with a qualification at Level 4 or above, wānanga students were significantly more likely to have explored their whakapapa than other adult Māori, even for those with Māori language background.

As with the previous two outcomes, this could be either a selection effect or a learning outcome. Many wānanga programmes include an element of improving knowledge of whakapapa. For example, Te Wānanga o Raukawa includes research on one's whānau and marae as a requirement of the bachelors programme.

Figure 31

Percentage who have explored their whakapapa in the last 12 months, in the Māori ethnic group aged 15 and over, by language background and wānanga study

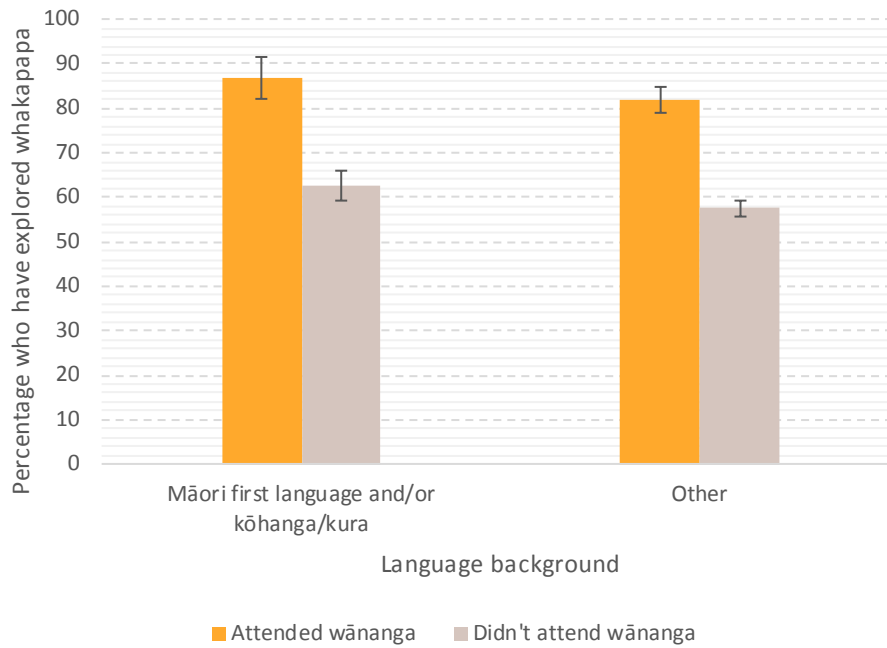
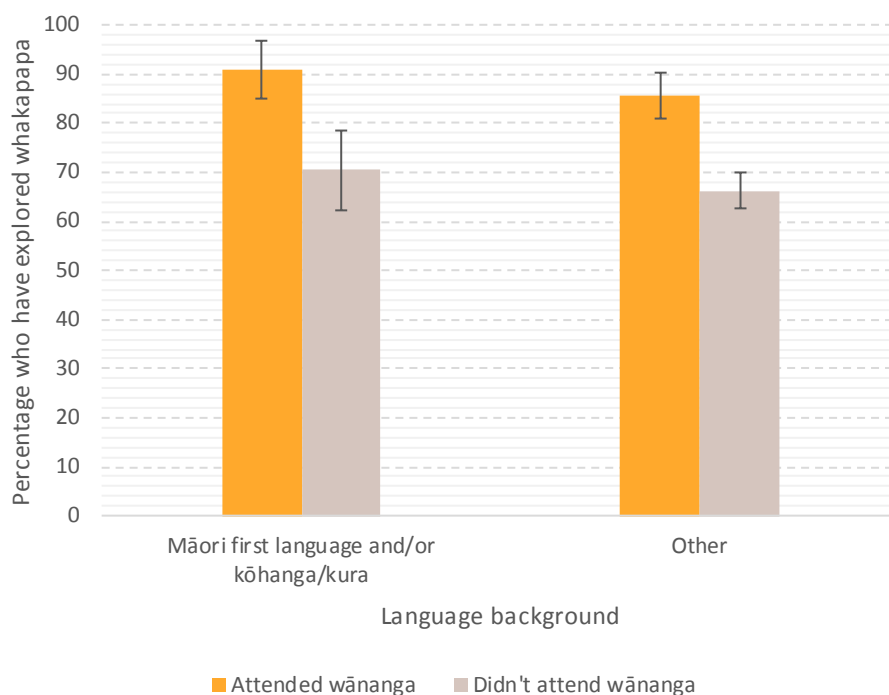


Figure 32

Percentage who have explored their whakapapa in the last 12 months, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by language background and wānanga study



5.4 Tā moko

Te Kupenga included the following question:

Do you have a Tā Moko or Māori design tattoo?

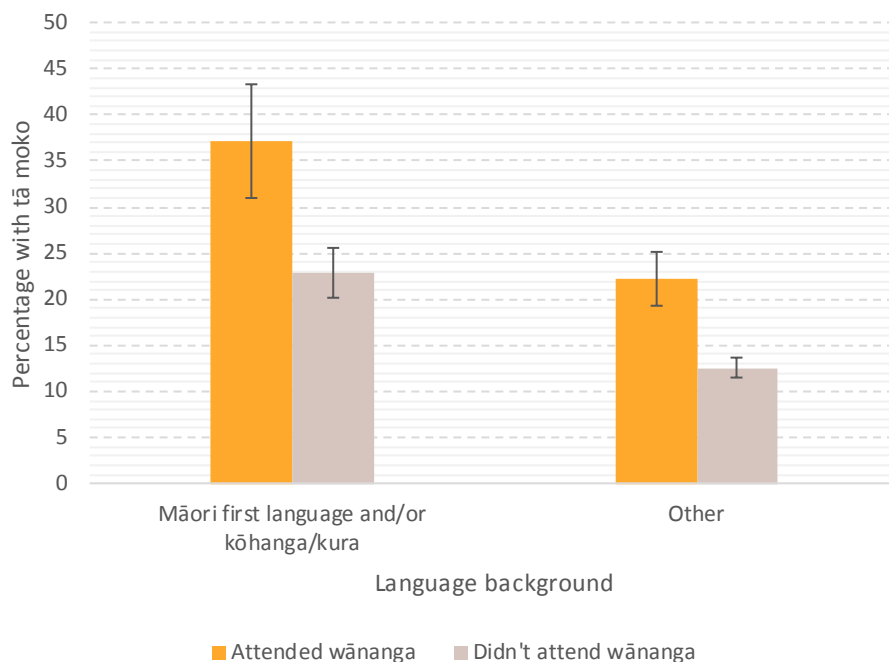
Kei te mau Tā Moko, Kirituhi rānei koe?

Tā moko is a distinctive traditional Māori art form as well as a long-lasting visual sign on the body, and thus can present a strong statement of identity. Younger and middle-aged Māori are more likely to have tā moko or Māori design tattoos (18 per cent of those aged 15-55, 6 per cent of those aged over 55).

Figure 33 compares wānanga students with other adult Māori responses to this question, taking into account language background. Using 'tā moko' to refer to either traditional tā moko or modern Māori design tattoos, wānanga students were clearly more likely to have tā moko, even among adult Māori with Māori language background.

Figure 33

Percentage with tā moko, in the Māori ethnic group aged 15 and over, by language background and wānanga study



Among Māori with a qualification at Level 4 or above, 24 per cent of wānanga students had tā moko, compared with 15 per cent of non-wānanga students.

As with the other factors, this could reflect selection effects or effects of being part of the wānanga community of learners. It may be that people who attend wānanga are more interested in tā moko than those who do not. It could also be that being part of the community of learners at wānanga encourages and legitimises the acquisition of tā moko.

6 WĀNANGA STUDENTS: WELLBEING

KEY POINTS

It was shown in section 3.2 that wānanga students are concentrated to a much greater extent in the most deprived neighbourhoods than other adult Māori. High deprivation could be expected to be associated with reduced wellbeing.

This chapter considers four measures of wellbeing: employment rate, life satisfaction, whānau wellbeing, and control over life. On these measures there was no clear difference between wānanga students and other adult Māori, given the level of neighbourhood deprivation.

Te Kupenga includes a number of questions aimed at gauging the wellbeing of individuals. These questions are shared with Statistics New Zealand's biennial General Social Surveys of the whole New Zealand population. In addition, Te Kupenga incorporates a new question on whānau wellbeing.

These wellbeing measures are based on subjective questions, but these are known to be statistically reliable. Wellbeing is also known to be strongly affected by socioeconomic factors, including income and quality of housing, as well as health status, which itself is strongly associated with socioeconomic factors (Statistics New Zealand, 2015). Given that wānanga students are even more heavily concentrated in the most deprived neighbourhoods in New Zealand than the adult Māori population, it could be expected that wānanga students would tend to rate their wellbeing lower than other adult Māori.

6.1 Labour force status

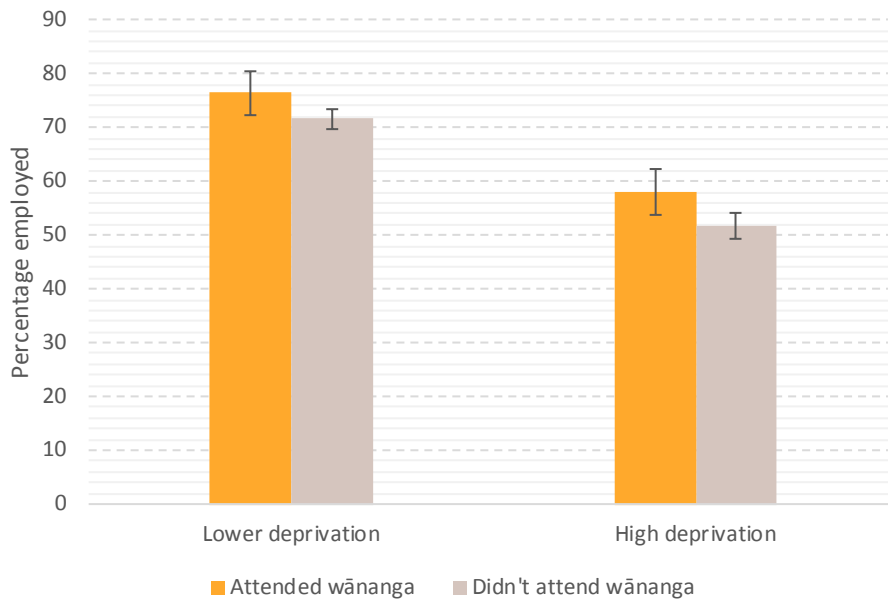
This analysis is based on a labour force variable supplied with the Te Kupenga CURF. This variable is derived from several questions in the survey, and has the values 'employed', 'unemployed' or 'not in the labour force'.

Employment is known to contribute to wellbeing in a number of ways, such as providing income, social status or a sense of contributing to society, and social connection. If we take into account the level of neighbourhood deprivation, wānanga students had higher estimated percentages employed, as can be seen in Figure 34. However, allowing for the margins of error around the estimated percentages, there is no clear difference between wānanga students and other adult Māori in percentage employed.

In Figure 34 and the following figures in this chapter, lower deprivation covers quintiles 1 to 4 and high deprivation refers to quintile 5.

Figure 34

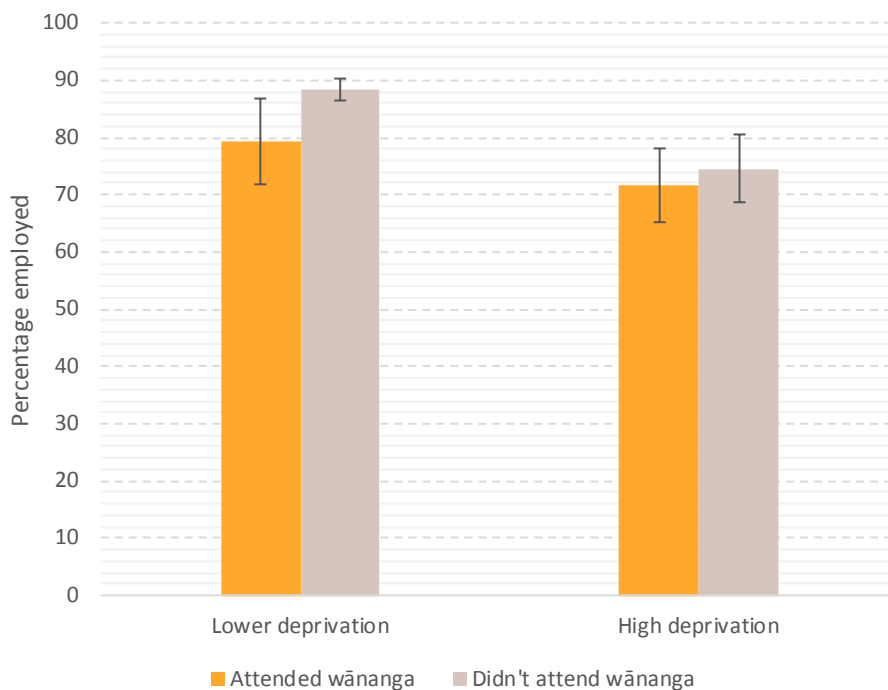
Percentage employed in the Māori ethnic group aged 15 and over, by neighbourhood deprivation and wānanga study



Among Māori with a qualification at Level 4 or above, non-wānanga students had somewhat higher estimated employment rates, taking deprivation into account, but again the margins of error mean that it is not clear that there really is a difference here between wānanga and non-wānanga students.

Figure 35

Percentage employed, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by neighbourhood deprivation and wānanga study



6.2 Life satisfaction

The question on overall life satisfaction in Te Kupenga is worded as follows:

I am going to ask you a very general question about your life as a whole these days. This includes all areas of your life. Where zero is completely dissatisfied, and ten is completely satisfied, how do you feel about your life as a whole?

Ka pātaihia tētahi pātai whānui e pā ana ki tō oranga i ēnei rā. Tae atu ki ngā wāhanga o tō oranga. Ko te kore (0) he tohu i tō tino kore nei i manawa reka, ko te tekau (10) he tohu i tō tino manawa reka. Pēhea nei tō manawa reka ki tō oranga?

For the overall population, life satisfaction is most affected by health and income, though quality of housing and social relationships are also important (Statistics New Zealand, 2015). However, for adult Māori the most important factor is whanaungatanga, or social relationships and connection, followed by health, income and trust in people and institutions. Culture and language also have small positive effects on life satisfaction.

Figure 36 compares the percentages of wānanga students and other adult Māori expressing high levels of life satisfaction (i.e. scores of 8, 9 or 10), according to the level of neighbourhood deprivation. Given the level of deprivation, there is no clear difference in life satisfaction between wānanga students and other adult Māori.

Figure 36

Percentage with high life satisfaction, in the Māori ethnic group aged 15 and over, by neighbourhood deprivation and wānanga study

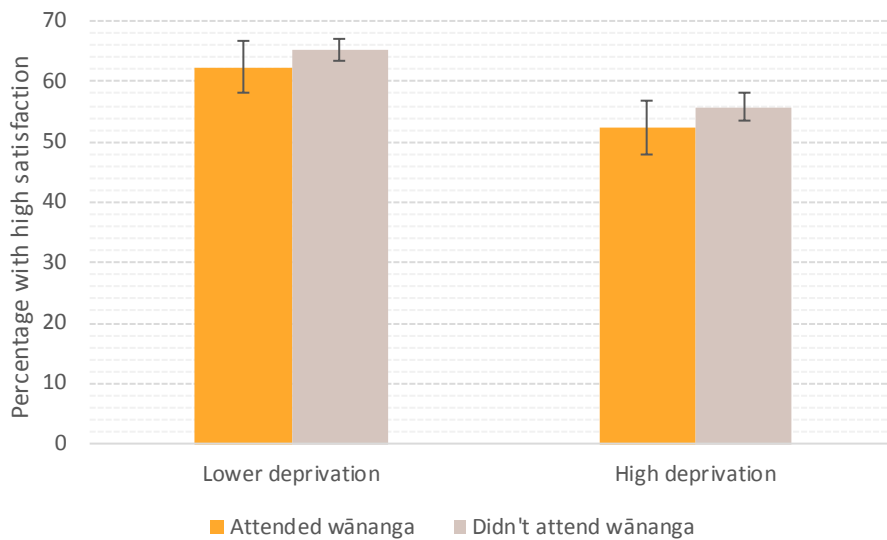
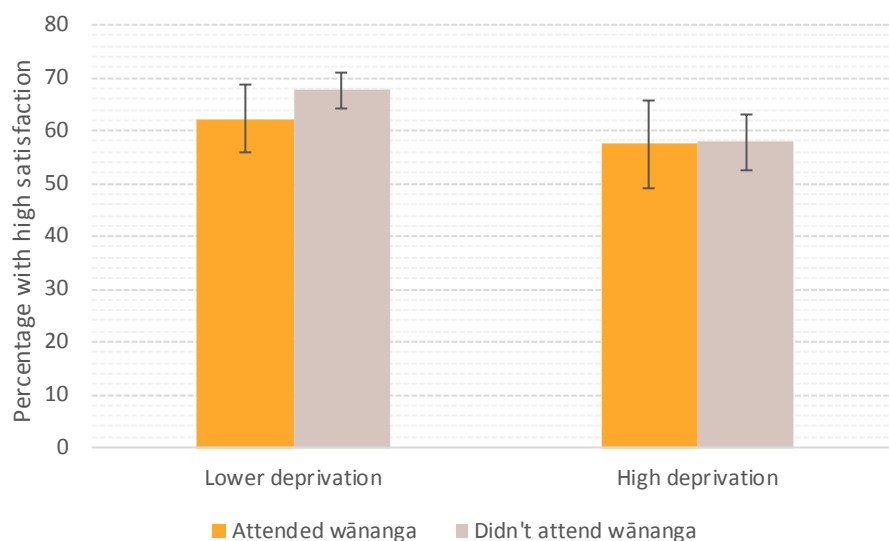


Figure 37 compares life satisfaction ratings for wānanga and non-wānanga students with a qualification at Level 4 or above. Given the level of deprivation, there is no clear difference in life satisfaction between wānanga students and other adult Māori for students with Level 4 or above qualifications.

Figure 37

Percentage with high life satisfaction, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by neighbourhood deprivation and wānanga study



6.3 Whānau wellbeing

Te Kupenga included a question on whānau wellbeing as follows:

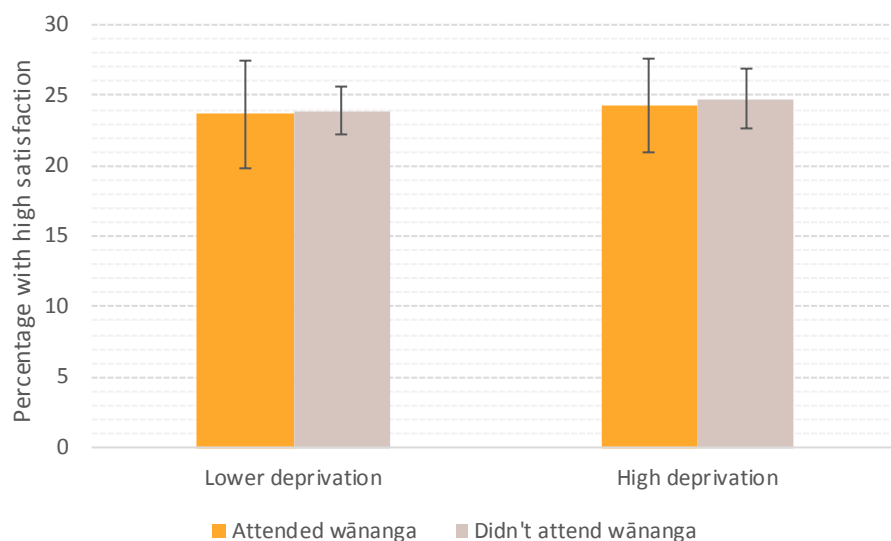
First of all I'd like you to think in general about how your whānau is doing. Where zero means extremely badly and ten means extremely well, how would you rate how your whānau is doing these days?

Tuatahi, anei te pātai – kei te pēhea tō whānau? Ko te kore (0) e tohu ana i te 'kāore i te pai', arā, tino kino. Ko te tekau (10) he tohu i 'te mutungā mai o te pai', arā, tino pai rawa atu. He aha nei ō whakaaro mō te ora o tō whānau?

Figure 38 compares the percentages of wānanga students and other adult Māori expressing high levels of whānau wellbeing (i.e. scores of 8, 9 or 10), according to neighbourhood deprivation. As with life satisfaction, there is no difference between wānanga students and other Māori adults, having taken into account neighbourhood deprivation. In fact, neighbourhood deprivation has no effect itself on this measure.

Figure 38

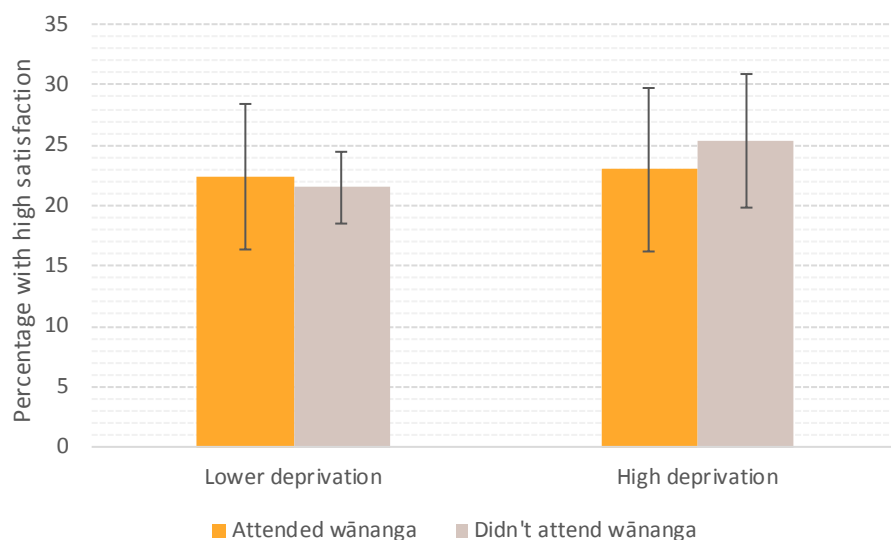
Percentage with whānau doing very well, in the Māori ethnic group aged 15 and over, by neighbourhood deprivation and wānanga study



The corresponding comparison among Māori with a qualification at Level 4 or above (Figure 39) shows the same lack of difference between wānanga and non-wānanga students, once neighbourhood deprivation is accounted for.

Figure 39

Percentage with whānau doing very well, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by neighbourhood deprivation and wānanga study



6.4 Control over life

The concept of control over one's life is explored in Te Kupenga with the following question:

Some people feel that they have complete control over their lives, while other people feel that what they do has no real effect on what happens to them. Where zero is 'no

control at all' and ten is 'complete control', how much control do you feel you have over the way your life turns out?

E whakaaro ana ētahi kei a rātou te kōwhiringa te whakatau ka ahu pēhea tō rātou oranga, ko ētahi, e whakaaro ana ahakoa he aha ā rātou mahi, kāore he pānga ki a rātou. Ko te kore (0) he tohu 'kāore i a rātou te kōwhiringa', ko te tekau (10) he tohu 'kei a rātou te kōwhiringa'. Pēhea nei te whānui o tō whakatau ka ahu pēhea tō oranga?

A higher proportion of those in lower deprivation areas had high levels of control over their lives, as shown in Figure 40. Given the level of neighbourhood deprivation, there was no difference between wānanga students and other Māori adults. For those with Level 4 and above qualifications, there was no difference by neighbourhood deprivation or wānanga attendance (Figure 41).

Figure 40

Percentage with a high degree of control over their life, in the Māori ethnic group aged 15 and over, by neighbourhood deprivation and wānanga study

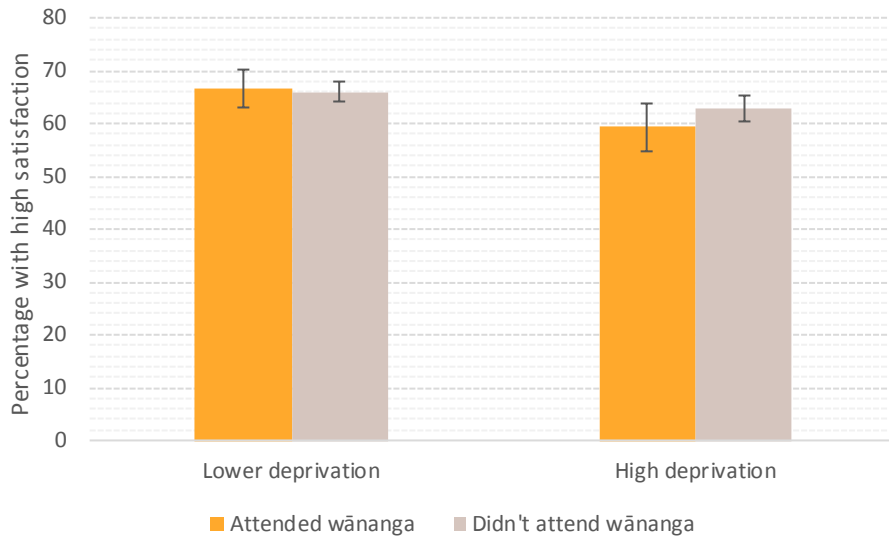
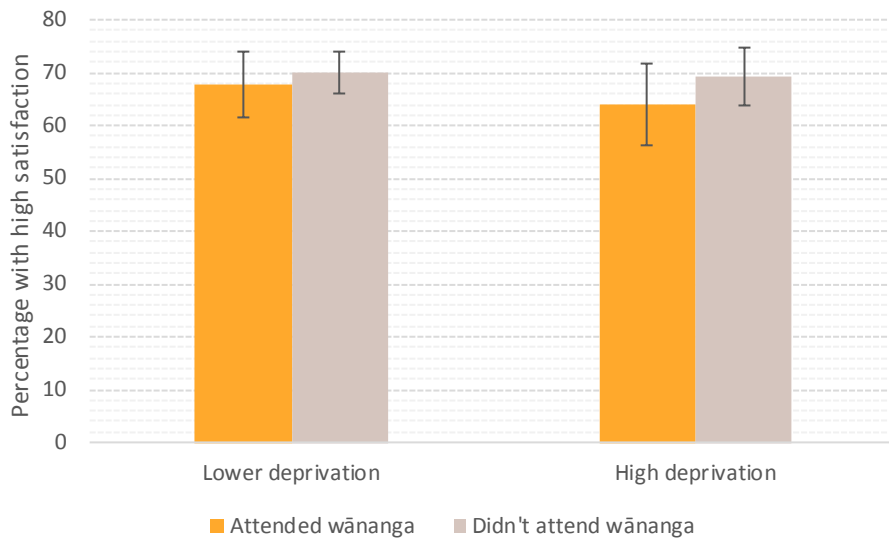


Figure 41

Percentage with a high degree of control over their life, among those in the Māori ethnic group with a qualification at NZQF Level 4 or above, by neighbourhood deprivation and wānanga study



APPENDIX: MODELLING EFFECTS ON OUTCOMES

Author: David Earle, Ministry of Education

This appendix provides further analysis on the relative effects of wānanga participation on the outcomes discussed in this report. It presents the results of a series of regression models that compare the effect associated with wānanga participation on each outcome, having controlled for the characteristics of wānanga students.

The analysis was undertaken in two stages:

- A model was developed of the factors associated with wānanga participation and used to create a score that represents the predicted probability of participating in a wānanga (known as a propensity score).
- Models were run for each of the outcome factors, looking at the differences for wānanga and non-wānanga participants (as a main effect), having controlled for their predicted probability of participating in a wānanga (as a covariate).

Factors associated with wānanga participation

The following factors were found to be associated with wānanga participation (in descending order of contribution to the model):

- Highest qualification
- Birth cohort
- NZDep index (in quintiles)
- Māori as a first language
- Attended kōhanga or kura
- Region
- Gender
- Whānau size.

An interaction was found to be statistically significant between NZDep index and attending kōhanga and kura.

Figure 42 shows the predicted probabilities of attending wānanga, having controlled for the other factors in the model. The model shows that people who participated in wānanga were more likely to:

- have a post-school qualification
- be born between 1949 and 1978 (aged between 35 and 64 in 2013)
- live in the areas of highest deprivation, if they had not attended kōhanga or kura
- attended kōhanga or kura, in which case neighbourhood deprivation made almost no difference
- have Māori as a first language
- live in the North Island, excluding Auckland

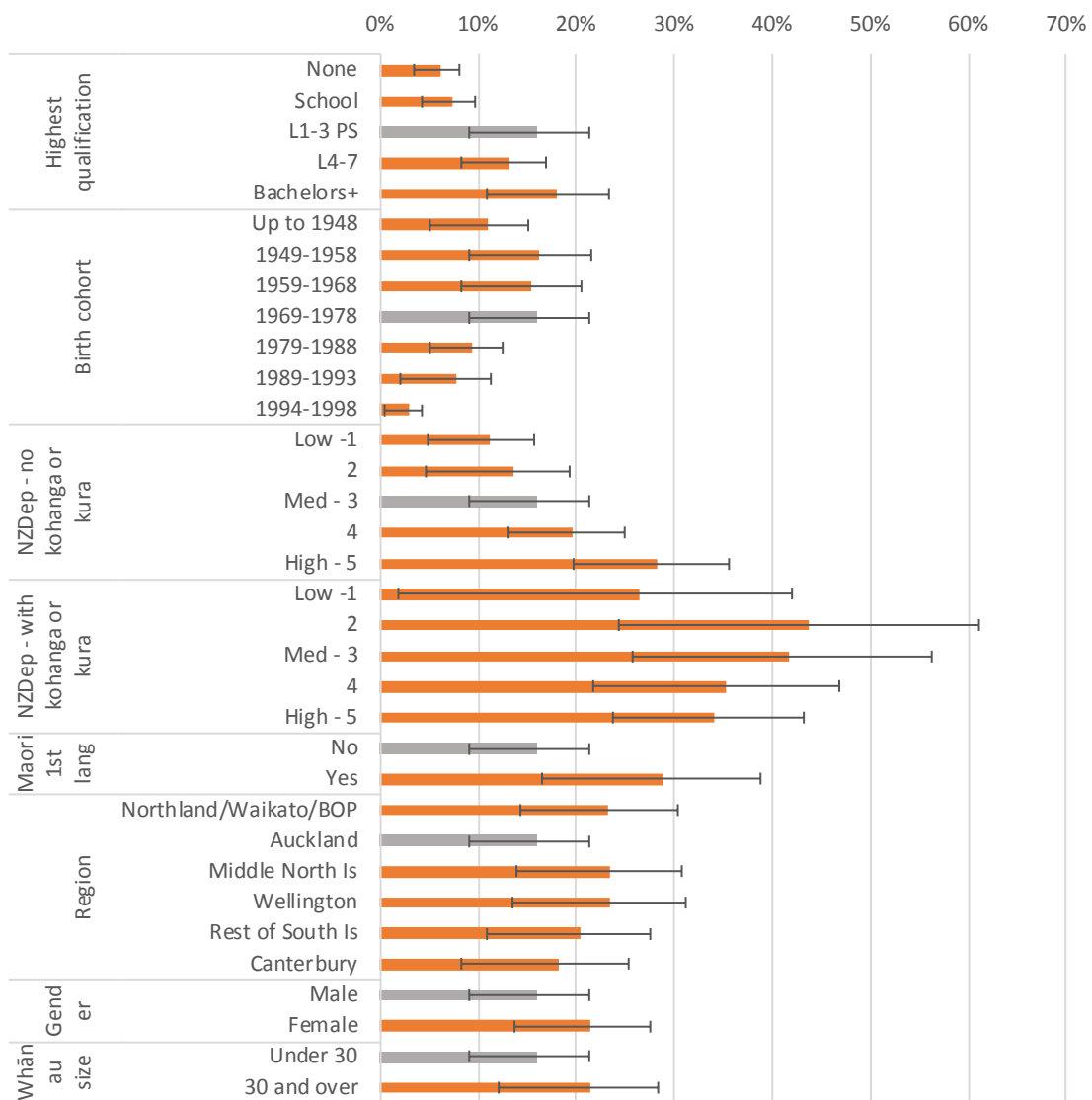
- be female
- be part of a whānau with more than 30 members.

These findings confirm the results set out in chapter 3. An interesting additional finding is that the relationship to deprivation area exists only for those who did not attend a kōhanga or kura. For those who had attended kōhanga or kura, there was no difference across deprivation areas.

Post-school qualifications could be considered as both a selection factor for wānanga participation and an outcome of participation. It is included in this stage of the modelling as it provides an important control for the further outcomes.

Figure 42

Predicted probability of having attended a wānanga, controlling for other factors



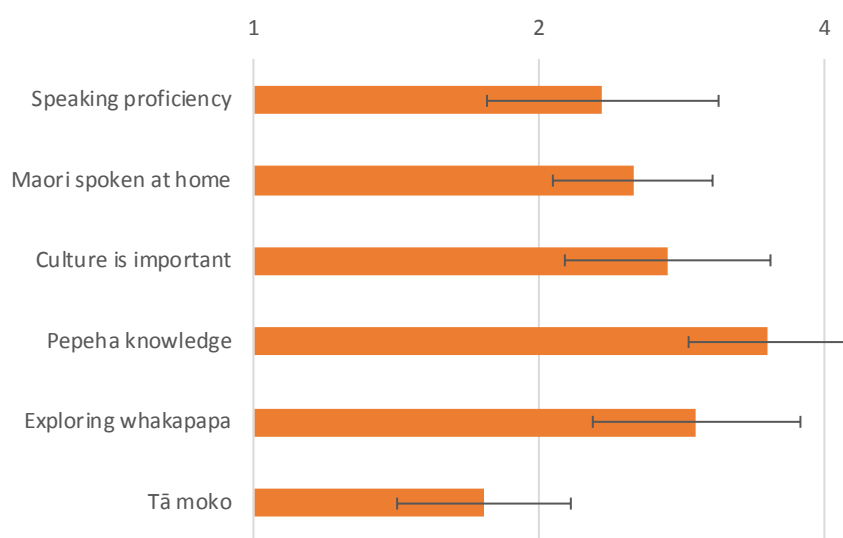
Predicted probabilities are relative to the reference group values (shown in grey). The error bars show the 90% confidence intervals.

Language and cultural outcomes

A series of models was run looking at the language and culture outcomes discussed in chapters 4 and 5. Figure 43 displays the results of the models as the odds ratio for wānanga participants compared with non-wānanga participants. It shows that wānanga participants were more likely to achieve all of these outcomes than non-participants, after controlling for background factors. The strongest likelihood was pepeha knowledge (or knowledge of cultural identifiers). The weakest relationship is with having tā moko.

Figure 43

Odds ratios for language and cultural outcomes of wānanga participants, compared to non-participants, and controlling for background factors



The error bars show the 95% confidence intervals. Where the lower error bar is above 1, there is a statistically significant difference between wānanga participants and non-participants.

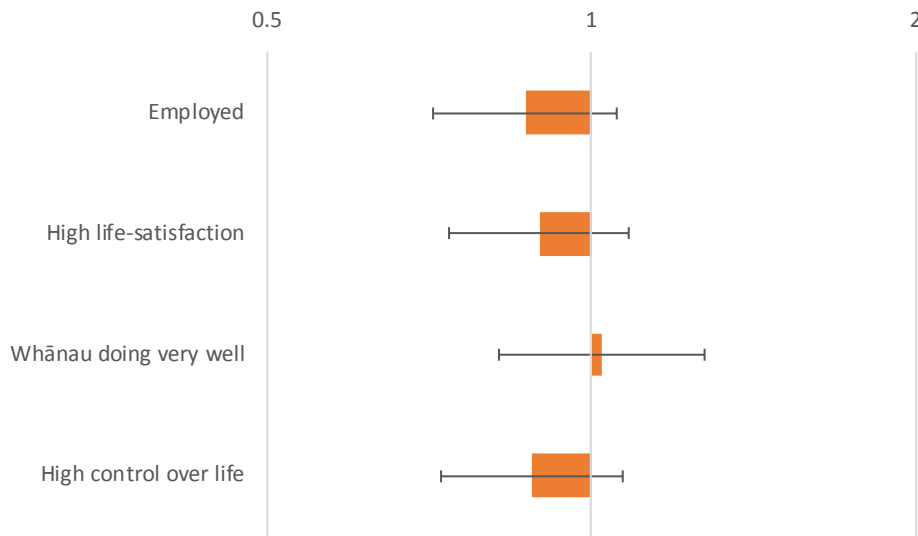
As noted in the main part of the report, these variables may be both selection factors for participating in wānanga (that is, people who have these outcomes are more likely to attend wānanga) and outcomes of attending wānanga. As shown in the main part of the report, the difference in these outcomes was greater for wānanga students who did not have a Māori language background. This suggests that wānanga may be building cultural capital for Māori who have previously had lower levels of engagement with language and culture.

Wellbeing

Figure 44 shows the results for the series of models looking at the wellbeing outcomes discussed in chapter 6. It shows the odds ratios for wānanga participants compared with non-participants after controlling for background characteristics associated with wānanga participation.

Figure 44

Odds ratios for selected wellbeing outcomes of wānanga participants, compared to non-participants, and controlling for background factors



For each outcome, the ratio is not statistically significantly different from 1. This suggests there is no measurable difference between participants and non-participants on these measures, having controlled for the background of the students. It confirms the findings in the main part of the report.

DATA AND DEFINITIONS

Te Kupenga 2013

See section 1.4 for a general description of Te Kupenga 2013.

English and Māori versions of the questions asked in Te Kupenga are set out in Statistics New Zealand (2013) *Te Kupenga 2013 questionnaire*. The questions used in this report are quoted in the main body of the report for ease of reference.

The variables in the full Te Kupenga data set are catalogued in Statistics New Zealand (2014b) *Te Kupenga 2013 data dictionary*.

The variables used for analyses in this report are based directly on variables available in the CURF, which was derived from the full Te Kupenga data set. Statistics New Zealand (2014c) *User guide for the 2013 Te Kupenga confidentialised unit record file* explains the changes (mainly aggregations of categories) made to the original data set in the process of producing the CURF.

Te Kupenga 2013 had 5,549 respondents. Of these, 5,006 identified themselves as belonging to the Māori ethnic group. It is this subset of 5,006 (representing 474,000 adults in the Māori ethnic group) which provides the basis for most of the analyses in this report.

Some of the analyses in this report are based on the subsample of 1,232 adults in the Māori ethnic group (representing 119,000 adult Māori in the population) whose highest qualification was at Level 4 or above in the NZQF.

Margins of error

Te Kupenga 2013 survey was carefully designed so that the sample of adult Māori interviewed would as far as possible be representative of the total adult Māori population in New Zealand, and estimates (such as an estimate of the number of adult Māori whose first language was te reo Māori) could be made for that total population. The basis of such estimates is a calculated 'weight' for each survey respondent, which can be thought of as the number of people in the adult Māori population represented by that respondent.

However, the representativeness of the sample is not perfect. If a different sample of people was selected using the same sampling procedure, the population estimates would probably be somewhat different. This variation in estimates due to the process of sampling is known as sampling error.

Sampling error in Te Kupenga is estimated by simulating a process of taking 100 different samples: each of these simulated samples consists of 99 per cent of the survey sample, with a different one per cent left out each time, and a different weight ('replicate weight') for each respondent. When a particular number or percentage is being estimated, the number or percentage is calculated based on the complete sample, and then to get a measure of the range of variation in estimates, it is calculated again for each 99 per cent subsample. This method of estimating sampling error is called a jackknife variance estimation procedure. This is the basis of the margins of error shown in the graphs in this report.

These margins of error are at the 90 per cent confidence level; that is, there is a 90 per cent probability that the true population number or percentage falls within the margin of error

shown. When two estimates are compared, if their margins of error overlap, they are treated as not significantly different. If they do not overlap, the difference between estimates is likely to be statistically significant, at the 95 per cent confidence level (or in standard notation, $p < 0.05$), following Schenker and Gentleman (2001).

Language background

The first kōhanga reo, providing immersion in te reo Māori for pre-school children, was established in 1982, with kura kaupapa Māori (primary school level) and wharekura (secondary level) established later as the earliest kōhanga reo cohorts aged. The relevant birth cohorts of children enrolled in these levels of kaupapa Māori education are the 1979-1988 and 1989-1998 birth cohorts. However, the distribution of the responses indicating enrolment in at least one of kōhanga reo, kura kaupapa Māori and wharekura includes a large number of individuals in earlier birth cohorts, who would have been adults by 1982. These are probably people who participated or were involved in these forms of education as adults.

For the purposes of analysis it is assumed that the questions on enrolment in kōhanga, kura or wharekura were aimed at identifying people who were enrolled in these institutions as children, and so the kōhanga/kura/wharekura variable is only applied to the 1979-1988 and 1989-1998 birth cohorts.

Hence 'Māori language background' as used extensively in this report (usually labelled 'Māori first language or kōhanga/kura') refers to members of the Māori ethnic group aged 15 and over whose first language was Māori, and/or who were born between 1979 and 1998 and are recorded in Te Kupenga as having been enrolled in at least one of kōhanga reo, kura kaupapa Māori or wharekura.

New Zealand Deprivation Index

The New Zealand Deprivation Index (NZDep) was developed by researchers in the Department of Public Health, University of Otago, Wellington, and has since been adopted by the Ministry of Health for a range of purposes including research and the allocation of funding. The index has been calculated on the basis of each census since 1991 and is a well-established measure. The latest index is NZDep2013 (Atkinson, Salmond and Crampton, 2014a, b).

The index applies to small geographical areas (not individuals), namely meshblocks and area units as defined by Statistics New Zealand. The index is a measure of the socioeconomic deprivation of people living in each small area, expressed in terms of deciles (decile 1 represents the least deprivation, and decile 10 the greatest deprivation). NZDep2013 was derived from the proportions of people in each small area who were:

- without access to the internet
- receiving a means-tested welfare benefit
- with low household income
- unemployed
- without educational qualifications
- in a home they do not own
- in a single parent family
- in overcrowded housing
- without access to a car.

For the purposes of analysis in this report, the 10 NZDep2013 deciles have been aggregated into five quintiles (two deciles to each quintile). Quintile 1 has the least deprivation and quintile 5 the greatest deprivation.

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