

Widening participation of Māori and Pasifika students in health careers: evaluation of two health science academies

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The authors regret to inform that the original Supplementary Material, available online, was incomplete. The file has now been corrected and replaced online.

Supplementary material

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Text S1: Qualitative Methods and Tools

Perspectives were gathered from students and whānau/families using kanohi ki te kanohi (face-to-face) and talanoa faafesagai (face-to-face) interviews and focus groups. This supplementary material outlines the methods and tools used.

Student Focus Groups

An earlier visit to the schools introduced the project, and asked students if they wanted to participate, and whether they wanted to be included in a Pasifika or Māori student focus group. The overwhelming majority of focus groups comprised Pasifika students, which given Pasifika students make up 76% of all Academy students, was not unexpected.

The fieldwork built on the initial logic model developed at the start of the evaluation to visualise how the Academies were expected to have an impact on their intended outcomes. Students were presented with a series of statements outlined in the focus group guide below. They were asked to add their opinions to these statements, and then sort them in order of importance. Smaller focus groups did this by a collective discussion. Other larger groups had students voting individually, and then reviewing their collective results. Students were also able to introduce their own statements or expand on the statements provided, in order to explain more fully “how being in an Academy most influenced them”.

Students Focus Group Guide

1. What motivated you to apply to be in a Health Science Academy?
2. What do you think the school looks for in choosing students to be in the Academy?

3. What have been the highlights – any particular events or activities?
Probe for what have been the hardest things, what have been the most surprising things.
4. How do you think being in an Academy is most helpful to you? *Hand out the following statements and ask students to read them out and comment on their experiences of these aspects – use prompts to get them to tell stories about these experiences.*
 - i. We get extra equipment (like netbooks) which helps doing the work.
Probe for any other equipment eg Computers on Wheels
 - ii. We spend more time doing science subjects so we can see how what is taught is relevant to a job in health.
Probe any examples of how things that are taught is relevant to particular jobs
 - iii. We get to hear about and discuss different health jobs with those actually doing those jobs so we get a stronger sense what job we would like.
Probe for any examples of recent events
 - iv. Our families can see the benefit for us in being in an Academy.
Probe for what ways the families see the benefits
 - v. We get extra individual attention from the teachers and these expectations motivate us to work harder and continue with science subjects
Probe examples of learning support outside classes
5. Is there anything else that is an important part of the experience of being in an Academy for you?
Probe for whether there are other cards we need to create.
6. How would you group these experiences as less important or more important?
Suggest they physically assemble them in order.
7. Has anything got in the way of you taking part in the events and activities involved with being in an Academy?
8. Has being in the Academy helped you decide what you do not want to do in the future?

Focus Groups with Families and Whānau

The researchers were present at parent and whānau evenings at both schools and offered attendees the opportunity to be interviewed in person, or attend a small focus group. A number of these focus groups were conducted in Samoan.

Families and Whānau Focus group guide

1. How do you feel about your son/daughter being in the Academy?
2. What have you said or done to support your son/daughter?
3. What have you observed the Academy offering that is most helpful to your son/daughter?

Probe for: The extra equipment like netbooks

The extra time doing science and the different way it is taught
Getting to discuss different health jobs with those actually doing those jobs
The ways we as a family have been involved in our son/daughter being in an Academy
The attention from the teachers outside of regular classes

4. Is there anything that has been less helpful or difficult for your son/daughter?
5. Is there anything about the way the Academy works that could be improved or changed?
6. Is there anything really important that you would like to say that we have not covered?

Science Teachers Focus Group

Teachers had the opportunity to provide their perspectives on what was most helpful through interviews and focus groups as well as sending back written comments.

Science Teachers focus groups guide

1. Tell me about your experiences with having an Academy in your School?
Probe for what stands out for them as the type of events and activities that best describe what an Academy offers students.
2. How do you think being in an Academy is most helpful to the students? *Hand out the following statements and ask the teachers to read them out and comment on what they have observed.*
 - i. Students get extra equipment (like netbooks) which helps doing the work.
Probe for any other equipment eg Computers on Wheels
 - ii. Students spend more time doing science subjects so they can see how what is taught is relevant to a job in health.
Probe any examples of how things that are taught is relevant to particular jobs
 - iii. Students get to hear about and discuss different health jobs with those actually doing those jobs so they form a stronger sense of the sort of job they would like.
 - iv. Students families see the benefit for them being in an Academy.
Probe for what ways the families see the benefits
 - v. Students get extra individual attention from the teachers and this motivates them to work harder and continue with science subjects
Probe examples of learning support outside classes
3. Is there anything else that is an important part of the experience of being in an Academy that you have observed?
4. Have you seen any evidence of changes across the rest of school as a result of having an Academy?
5. Is there anything about the way the Academy works that could be improved or changed?

Supplementary figures

Supplementary Figure 1: Academy A externally examined Science Achievement Standards at NCEA Level 1

Supplementary Figure 2: Academy B externally examined Science Achievement Standards at NCEA Level 1

Supplementary Figure 3: Academy A externally examined Mathematics Achievement Standards at NCEA Level 1

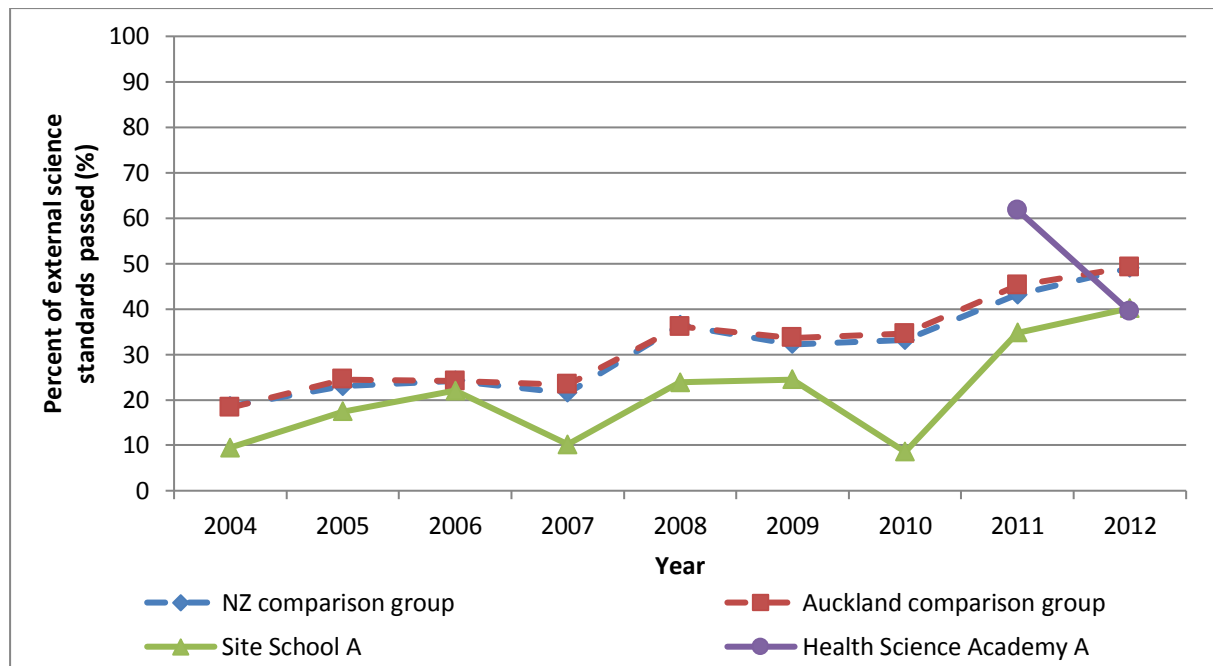
Supplementary Figure 4: Academy B externally examined Mathematics Achievement Standards at NCEA Level 1

Supplementary Figure 5: Academy A externally examined English Achievement Standards at NCEA Level 1

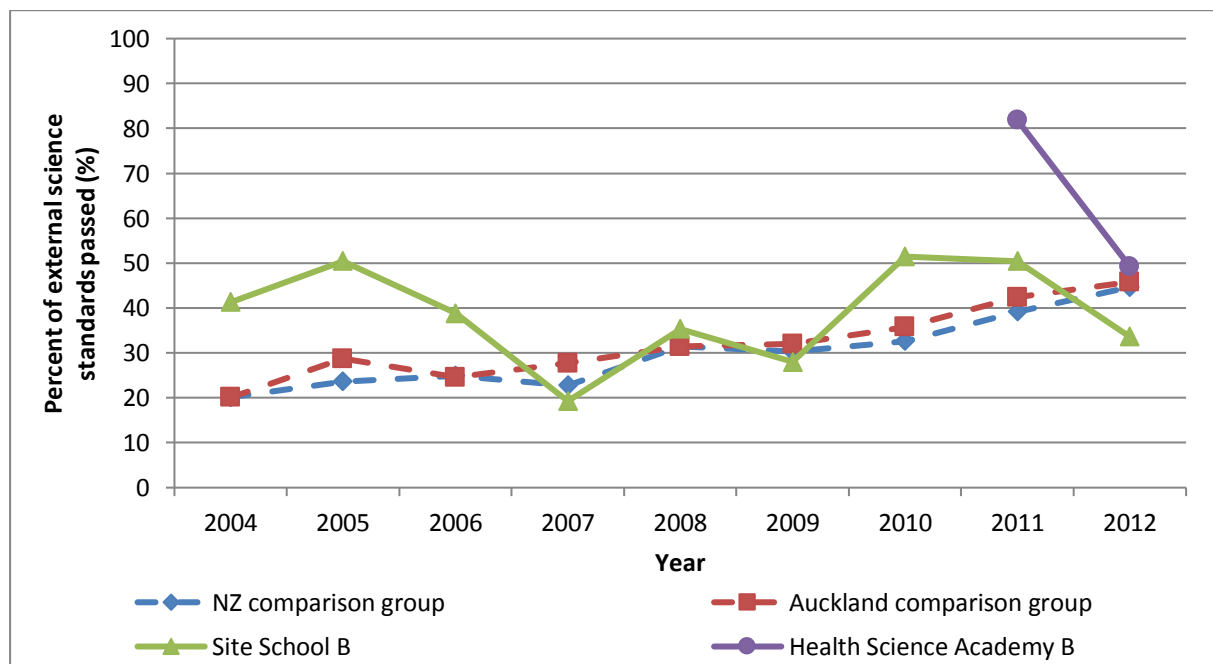
Supplementary Figure 6: Academy B externally examined English Achievement Standards at NCEA Level 1

A more detailed picture of Academy students' NCEA achievement is available by looking at the external results across the three main subjects of NCEA Science, Mathematics and English. Science results in NCEA level 1 external exams for 2012 show a decline from the 2011 results in both Academies (Figures 1 and 2). In 2012, Academy A students were performing at the same level as the rest of the school in the comparison group. Academy B students were performing at higher levels than the rest of the school in 2012, but were achieving lower results overall than in 2011.

Supplementary Figure 1: Academy A externally examined Science Achievement Standards at NCEA Level 1

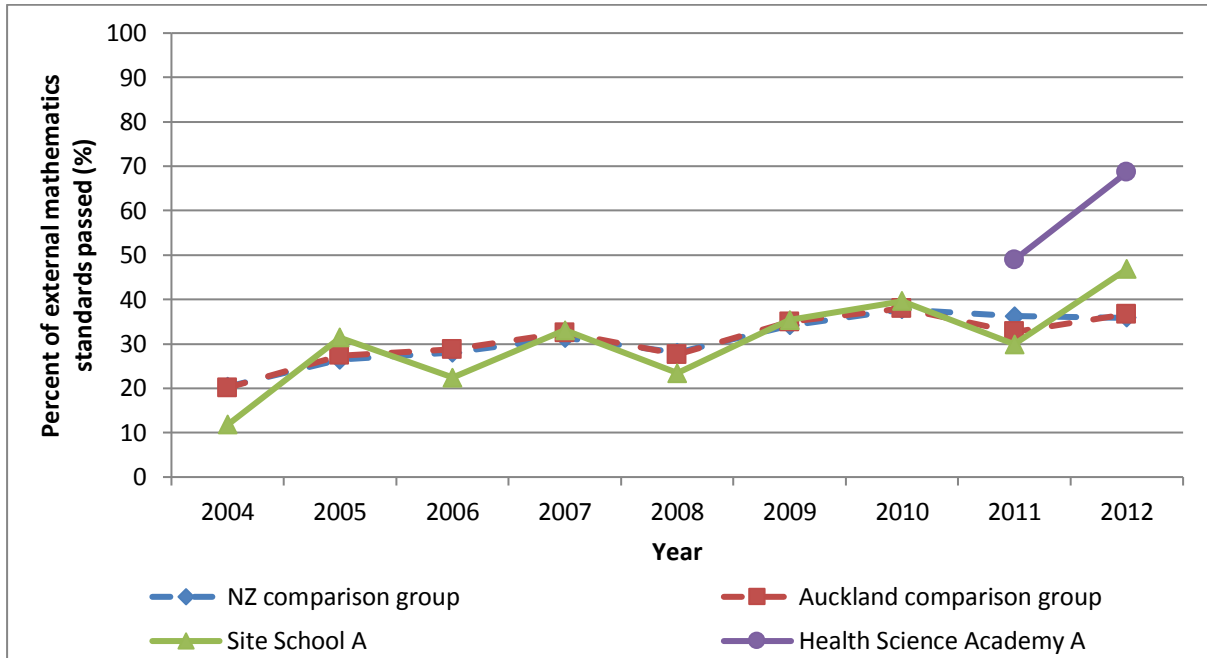


Supplementary Figure 2: Academy B externally examined Science Achievement Standards at NCEA Level 1

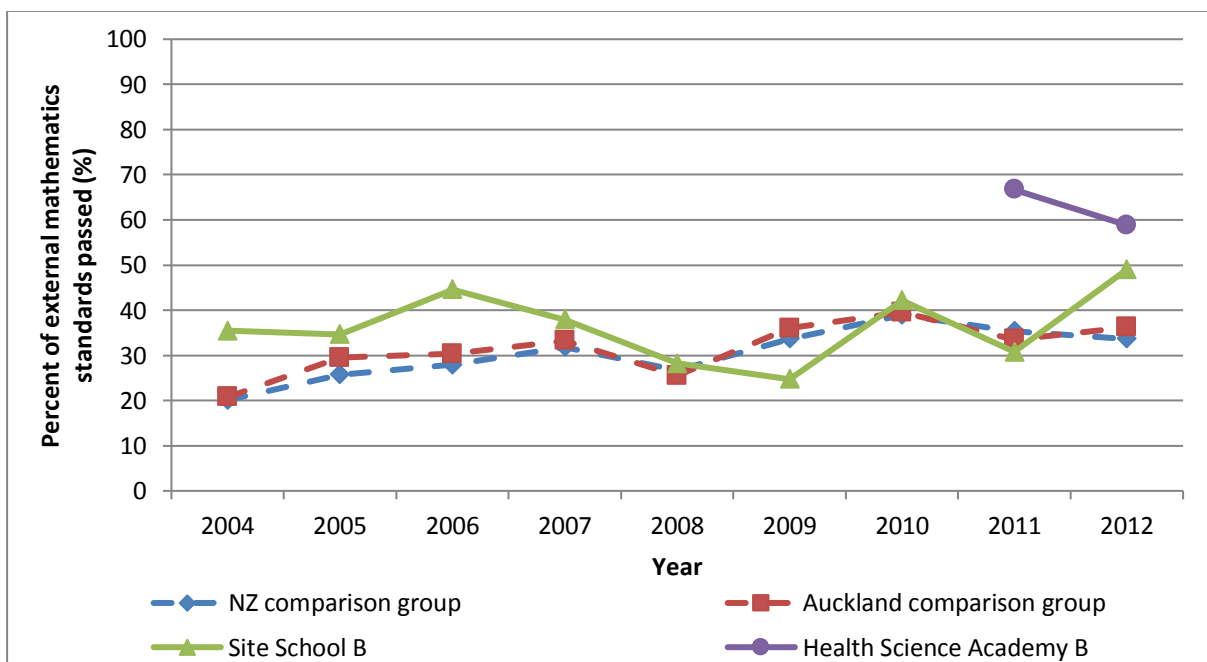


In Mathematics, both Academies have had good NCEA results compared to the comparison groups (Figures 3 and 4). Academy students at site school A have increased their level of achievement from 2011 to 2012, and Academy students at site school B have generally maintained a good level of achievement.

Supplementary Figure 3: Academy A externally examined Mathematics Achievement Standards at NCEA Level 1

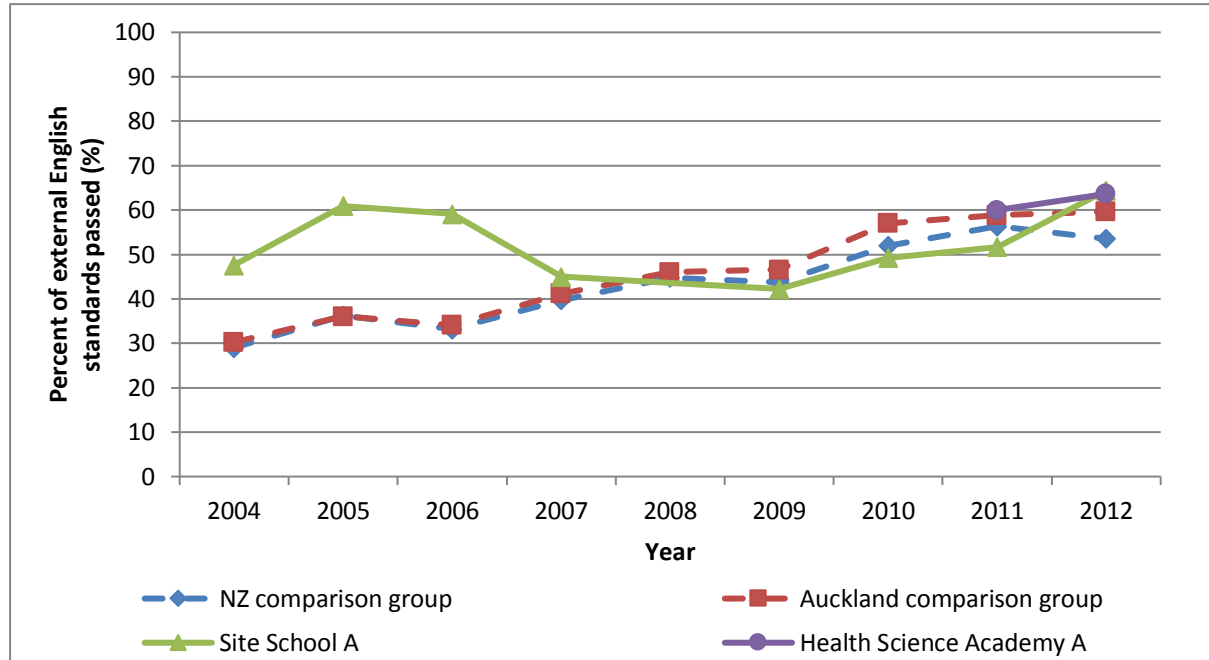


Supplementary Figure 4: Academy B externally examined Mathematics Achievement Standards at NCEA Level 1



Finally, English NCEA results demonstrate some differences between the Academies (Figures 5 and 6). Academy A students are performing at the same level as their peers, while Academy B students continue to perform better than their peers, even though the results drop from 2011 to 2012.

Supplementary Figure 5: Academy A externally examined English Achievement Standards at NCEA Level 1



Supplementary Figure 6: Academy B externally examined English Achievement Standards at NCEA Level 1

