

Achievement in health and physical education

Achievement by key population groups

Critical Thinking in Health and Physical Education

A greater percentage of NZ/European students in Year 4 and Year 8 achieved at their respective curriculum levels than Māori and Pasifika students.

Percent of Year 4 students achieving at Level 2 or above



Percent of Year 8 students achieving at Level 4 or above

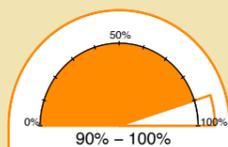


Students with special education needs

On average students with moderate special education needs:

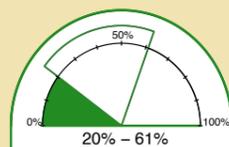
- demonstrated the same amount of progress from Year 4 to Year 8 as other students
- achieved lower than students with no special education needs at both year levels
- reported the same range of opportunities to learn health and physical education as other students.

Percent of Year 4 students with moderate special education needs achieving at Level 2 and above



The unshaded 'fan' on each dial is used to show the margin of error associated with the percentage reported.

Percent of Year 8 students with moderate special education needs achieving at Level 4 and above



Attitudes to health and physical education

About 2000 students at each year level responded to a student questionnaire. This included a section about their perceptions of themselves as learners in health and in physical education.

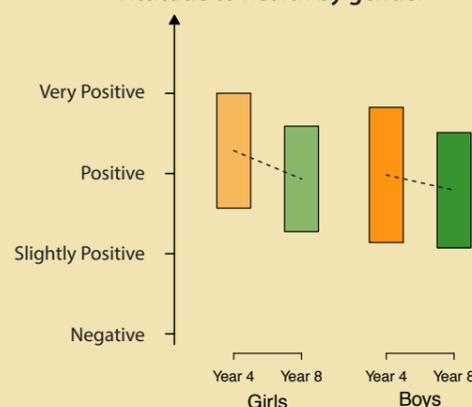
Attitude to health

Year 4 students on average were more positive than Year 8 students. This was the case for NZ/European, Māori and Pasifika students, and boys and girls.

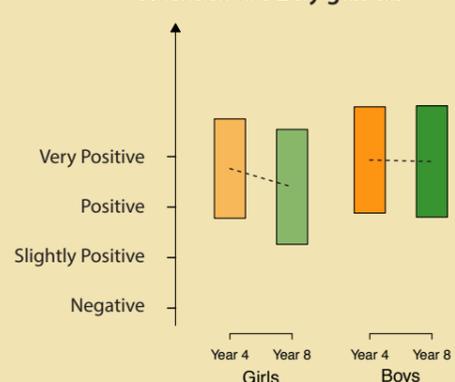
Attitude to physical education

On average Year 4 and Year 8 boys were equally positive. Pasifika Year 8 girls were slightly more positive on average than Pasifika Year 4 girls.

Attitude to health by gender



Attitude to PE by gender



Questions for teachers, principals and curriculum leaders

- Where do your students achieve in relation to the scale description for Critical Thinking in Health and Physical Education?
- How positive are your students about health and physical education?
- How do your students understand well-being?
- What is your students' understanding of fair play?
- What are the strengths of your current practice?
- What opportunities could you offer students to improve movement skills?

Summary of results from the 2013 National Monitoring Study of Student Achievement for teachers and principals

Purpose

The National Monitoring Study of Student Achievement (NMSSA) – Wānangatia Te Putanga Tauria – is designed to assess and understand student achievement across the New Zealand Curriculum (NZC) at Year 4 and Year 8 in English-medium state schools. Its main purposes are to

- give a snapshot of student achievement against the NZC
- identify factors that are associated with achievement
- measure change in student achievement over time
- provide high quality information for policy makers, curriculum planners and educators.

What we assessed

In 2013 we assessed health and physical education in Years 4 and 8 using nationally representative samples of 800 students across 100 schools at each year level. The study used performance tasks, one-to-one interviews and paper and pencil assessments, to assess:

- critical thinking in health and physical education
- movement skills in the context of games and movement sequences
- understanding of well-being
- attitudes to health and physical education.

Each student's score on the Critical Thinking in Health and Physical Education assessment was located on a measurement scale. A curriculum alignment exercise was used to link the scales to curriculum levels. See page 3 for a description of the scale against curriculum levels.

Key findings

Critical Thinking in Health and Physical Education

- About 97 percent of Year 4 students achieved at curriculum level 2 or higher.
- About 51 percent of Year 8 students achieved at curriculum level 4 or higher.
- There was considerable variation in performance at both year levels and overlap in the performance of some Year 4 and Year 8 students.
- On average, girls and boys performed equally well at both Year 4 and Year 8.
- School decile and student ethnicity were associated with performance and were inter-related factors.

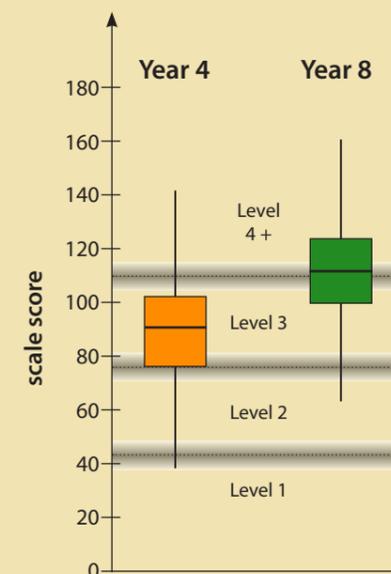
Movement skills

- In games involving strategic action, about 43 percent of Year 4 students and about 68 percent of Year 8 showed mid to high levels of throwing skills, and dodge and pivot skills.
- In creating a movement sequence using equipment (ropes, ribbons, tirou or a hacky sack) about 90 percent of students at both year levels showed mid to high level skills in aspects of movement, consistency and co-operation.

Well-being

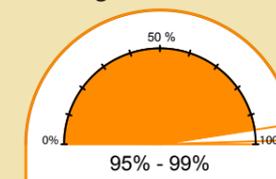
- Students showed a broad understanding that well-being included the mental/emotional (83-94 percent at Year 4 and Year 8 respectively), social (72-86 percent), and physical (60-70 percent) dimensions of the Hauroa model of well-being.
- Only 5 to 15 percent of Year 4 and Year 8 students respectively described the spiritual dimension.

Distribution of scores on the Critical Thinking in Health and Physical Education scale

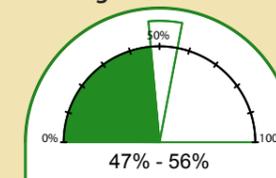


The blurred lines (above) show the boundaries between curriculum levels. The lines are blurred to indicate the uncertainty involved in defining precise boundaries.

Percent of Year 4 students achieving at Level 2 or above



Percent of Year 8 students achieving at Level 4 or above



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Examples of Health and Physical Education tasks

This interview task assessed the challenges, and social and cultural factors in the Critical Thinking in Health and Physical Education measure.

Fair Play

Supplies: photo card

Sometimes when we are playing games and sports we see or experience things that are not right or not fair.

1. Why might people do things that are not right or not fair in games and sports?
2. Is it ok to cheat?
3. Why do you say that?
4. What are some things you can do to make things fair in games and sports?
5. Why would you do that? (*repeat q5 for each thing mentioned in q4*)
6. Is winning important?
7. Why do you say that?

For Year 8 students only.

Here are 2 photos of Valerie Adams. Valerie represented New Zealand at the Olympic Games in the shot put event. At the Olympic Games she won the silver medal. It was later found out that the person who won the gold medal had cheated by taking drugs to make her perform better. Valerie was awarded the gold medal some months after the Olympic Games was finished.

8. What were the things that were not fair for Valerie?
9. How might these things affect Valerie?

- Most students were clear that it was not right to cheat, but more Year 8 than Year 4 students were able to provide reasons *why* this was so, and to explain whether winning was important or not.
- When asked how they could make things fair, most Year 4 students focused at the individual level, while over half of Year 8 students identified community level issues.

This performance and interview task assessed students' strategic action and movement skills.

Rua Tapawhā (Two Square)

Supplies: Ball, squared court area marked out 4m x 4m with halfway mark at 2m

We're going to play Rua Tapawhā. It is a strategy game and the person with the most points at the end of the game wins. I've marked an area on the floor to show you where we can move around. We need to keep inside this area. Think about what you will do and what I am doing to score a point. We will talk about our strategies after we've played the game.

Allow up to 1 minute to play the game – call out the points after each serve.

Teacher 1 serves first. Alternate serves.

Teacher 1: Serve 1) A fake pass; Serve 2) Bounce ball at student's feet; Serve 3) Short bounce pass.

Now *Teacher 2* is going to ask you about the game before we have another go at playing it.

1. What did *Teacher 1* do to try and score a point?
- If student unable to respond to q1 say: *Teacher 1 did a fake pass.*
2. What did you do when that happened?
 3. What strategies will you use /things will you do now, to try and score points?

Try to think of 3 or more things you could do.

Now have another go at playing the game. Try to use your strategies to score a point.

4. What were your strategies?
5. Did any of them work?
6. Why do you think they worked/didn't work? (*repeat q6 for each strategy mentioned in q4*)
7. What could you do if you were playing against someone who had difficulty in playing the game? For example they may not be able to ever score a point against you. Try to think of 3 things you could do so that you could play together.

If student unable to respond to q7 say: *Some people might change some of the rules for example they might say 'no high bounces.'*

8. Do you think changes should be made for people who have difficulty in playing a game?
9. Why do you think that?

- When asked what they could do if they were playing against someone who had difficulty in playing the game (Q7) most students at each year level could suggest at least one or two actions they could take so that they could play together. A quarter of students at Year 8 could suggest three actions.
- In responses to questions 8 and 9 most students could demonstrate an understanding of 'playing fair' or begin to show an understanding of the other person's perspective – e.g. they might get bored, they might get upset, it will be more fun for them.

What students know and can do in Critical Thinking in Health and Physical Education

The scale description sets out the knowledge and competencies associated with the critical thinking tasks as scores progress from low to high. The descriptions are divided into three broad bands from 1 being the lowest band to 3 being the highest band. The descriptions in each band form one complete description for the whole band. There is no ordering of separate statements within bands against the scale.

Each band describes the qualities of students' critical thinking skills associated with that band. Most Year 4 students achieved within Band 1. Most Year 8 students achieved within Band 2. Very few students achieved in Band 3.

