



WHERE SCIENCE
TECHNOLOGY
ENGINEERING AND
MATHS COME ALIVE.

2026 Power Challenge Impact Report



Engineering
New Zealand
Te Ao Rangahau

ENERGISED BY



TRANSPOWER

SUPPORTED BY

EECA

OMEXOM

POWER UP!



Ākonga design and build a wind turbine and work as a rōpū to light up their own mini town. Through six hands-on modules, they explore electricity and renewable energy, follow the engineering design process and test how changes improve performance.



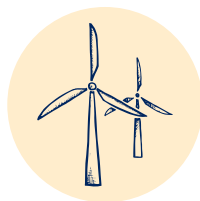
Module 1: Power up

Ākonga meet their Wonder Project ambassador and learn about the engineering design process, before exploring energy forms and transformations.



Module 2: Generate

Ākonga discover the phenomenon of electricity and Aotearoa's national grid, and the difference between renewable and non-renewable energy.



Module 3: Spin

Ākonga harness their creativity to imagine and plan their own wind turbine design by looking at how aerodynamics work in nature.



Module 4: Move

Ākonga bring their turbine design to life and analyse performance data to help improve the efficiency of their design.



Module 5: Supercharge

Ākonga discover what blade design variables affect the performance of their turbine and make improvements to their turbine blades.



Module 6: Illuminate

Ākonga compete in rōpū, using their optimised turbines to light up all of the buildings in a mini town.



The engineering design process

Across the challenge, ākonga ask questions, imagine solutions, create prototypes and test improvements – building confidence through practical iteration.



The final challenge

The programme culminates in a practical test: generating enough electricity to illuminate a mini town while applying teamwork, problem-solving and resilience.

POWERING UP STEM learning



In 2026, the Power Challenge lit up almost 12,000 rangatahi through engaging, hands-on STEM learning. Participation more than doubled from 2025, extending the programme to 20% of the target school market.

★ *Reaching more schools and ākonga*

This year, 410 classes from 299 schools took part – up from 176 classes and 141 schools in 2025.

At the same time, the number of kaiako on our waitlist fell from 170 in 2025 to just 11, reflecting the additional funded capacity available for the challenge.

The Wonder Project supplied 356 funded power kits and 23 refresh packs, valued at around \$150,000.

★ *Extending access for priority hāpori*

We continue to prioritise access to hāpori that face barriers to participating in STEM education and careers. Among funded classes:

- 36% of ākonga were Māori
- 12% were Pacific Peoples
- 35% were in schools facing higher socio-economic barriers

A further 43% were in the moderate-barrier group, meaning 78% of funded classes were in schools facing moderate to high barriers. There were also 58 funded Māori-medium classes. Across all participating kaiako, 27% were based in rural communities and 58% were outside Auckland, Wellington and Canterbury.

★ Building confidence and interest among ākonga

The challenge strengthened how rangatahi understood and experienced STEM:

- 77% said the Power Challenge made them feel more confident in STEM subjects
- 47% became more interested in STEM jobs, while a further 24% were already interested
- 93% of kaiako noticed a positive shift in ākonga perceptions of STEM
- 83% of ākonga said they would take part in another Wonder Project challenge

★ Equipping kaiako to teach STEM

The challenge also built capability in schools by giving kaiako the resources, structure and support to teach STEM with confidence:

- 96% of kaiako increased their confidence in teaching STEM
- 95% enjoyed teaching the Power Challenge
- 97% said their ākonga were engaged
- 99% said they would take part again

★ Connecting classrooms with industry

Industry ambassadors help ākonga connect classroom learning with real people, workplaces and careers. Of 212 ambassadors available, 156 were matched to support 154 classes. More than half of the kaiako who requested an ambassador received this additional support, and 98% of ambassadors enjoyed the experience.

PARTICIPANTS

This year

11,890

ākonga

Since 2018

38,657

410

classes

1,333

299

schools

622

156

STEM
professionals

907

DEMOGRAPHICS

78% moderate to high barrier schools

48% Māori or Pacific Peoples

61 Māori-medium classes

58% of schools in the regions

27% rural schools

★ Socio-economic barriers

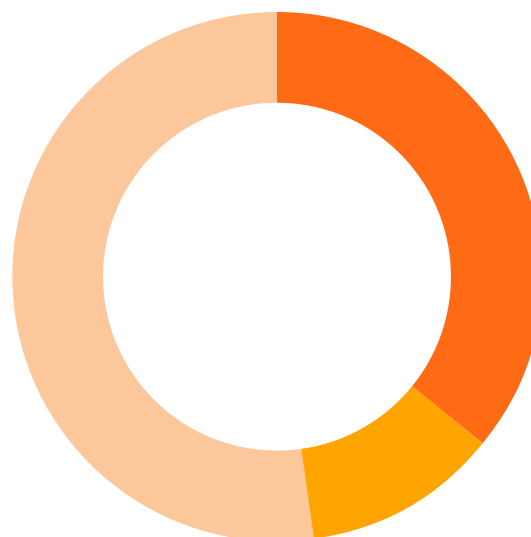
Of funded classes, 35% were in schools facing high socio-economic barriers with 78% being moderate to high barrier – maintaining our goal of 25% having high barriers. 43% were in the moderate-barrier group.



■ High barriers, 35%
■ Moderate barriers, 43%
■ Low barriers, 22%

★ Ākonga ethnicity

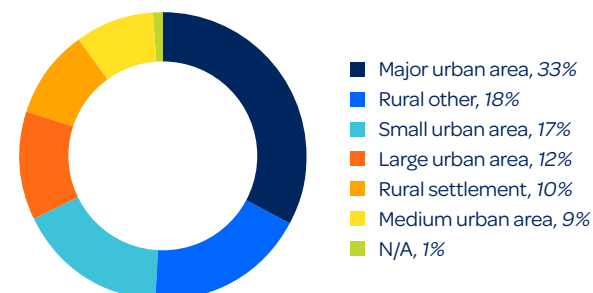
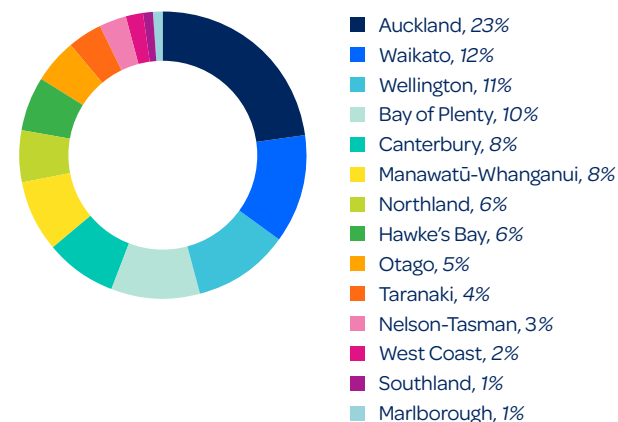
We had 36% ākonga Māori and 12% Pacific Peoples participating in the Power Challenge. With resources available in te reo Māori, we also had 61 Māori-medium classes across 55 schools.



■ Māori, 36%
■ Pacific Peoples, 12%
■ Other, 52%

★ Region

We had 42% of participating schools in the main centres (Auckland, Wellington and Canterbury), and 58% across the regions. Rural schools made up 27% of participants.



■ Major urban area, 33%
■ Rural other, 18%
■ Small urban area, 17%
■ Large urban area, 12%
■ Rural settlement, 10%
■ Medium urban area, 9%
■ N/A, 1%

ĀKONGA experience



"I used to think STEM subjects were just about formulas, but now I see how they are essential for solving real-world problems and driving innovation."

Ravneet, Ākonga – Kauri Flats School

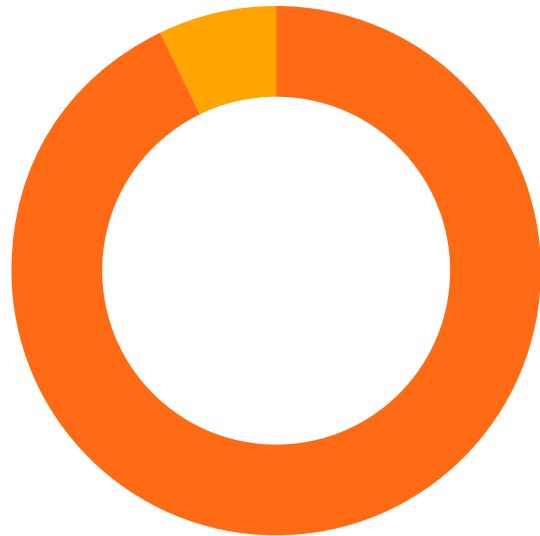
PERCEPTIONS

93% saw a positive shift in perceptions
of kaiako

71% are interested in a STEM career
of ākonga

★ STEM perceptions

When kaiako were asked if they noticed a shift in ākonga perceptions towards STEM over the challenge, 93% said they noticed a positive shift.



- Their perceptions changed positively, 93%
- Their perceptions didn't change, 7%
- ☐ Their perceptions changed negatively, 0%

★ Interest in STEM jobs

After the challenge, 83% of kaiako believed their ākonga were more curious about the opportunities that different careers in STEM can provide.

Almost half of ākonga reported becoming more interested in STEM jobs. With a further 24% already interested, 71% were positively oriented towards a STEM career after the challenge.



- I was more interested, 47%
- I was already interested, 24%
- I was less interested, 18%
- I am still not interested, 11%

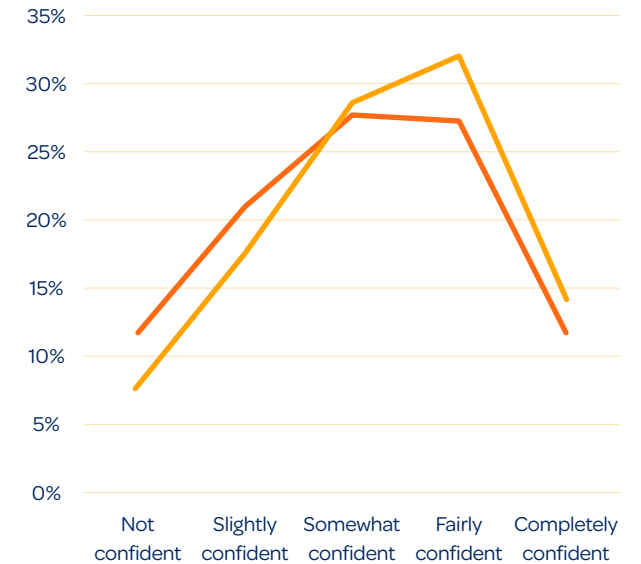
CONFIDENCE

77% increased their STEM confidence
of ākonga

★ STEM subject confidence

When asked if taking part in the challenge made them feel more confident in STEM subjects, 77% reported that it did.

When asked about confidence across each subject, we saw on average a 16% increase in ākonga being fairly or completely confident. Technology had the biggest shift, with a 20% increase in confidence.



- Pre
- Post

KNOWLEDGE AND SKILLS

90% correctly identified renewable energy of ākonga

92% practised the four key STEM skills of ākonga

★ Level of challenge

Most kaiako said ākonga were challenged by the learning material at about the right level.



- About the right level of challenge, 90%
- A bit too challenging, 10%
- It was too easy, 0%

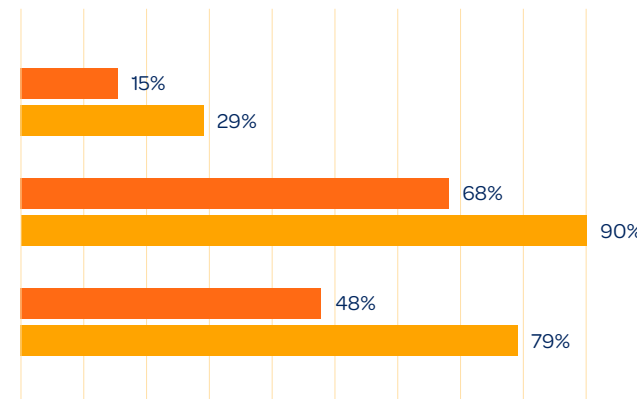
★ Learning outcomes

Knowledge improved across all three core learning outcomes. The share who correctly identified renewable energy rose from 68% to 90%, while the share who knew how to improve turbine performance rose from 48% to 79%.

Know 'quite a bit' or 'everything' about electricity

Correctly identified what renewable energy is

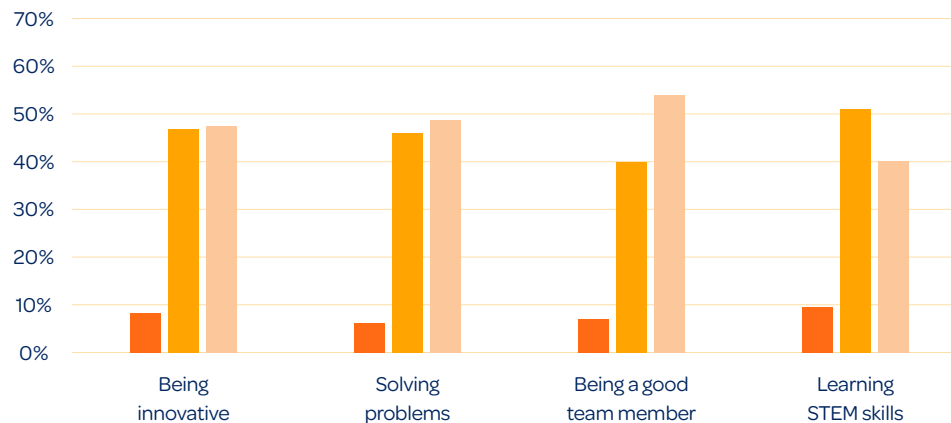
Understood testing and iteration improves design



- Pre
- Post

★ STEM skills practiced

Across innovation, problem-solving, teamwork and learning STEM skills, 92% of ākonga said they practised these skills either a little or a lot during the challenge. Teamwork stood out, with 53% saying they practised it a lot. Almost all kaiako (98%) agreed the challenge created lots of opportunities for ākonga to discover and develop STEM skills.



- Not at all
- Just a little
- A lot

ENJOYMENT

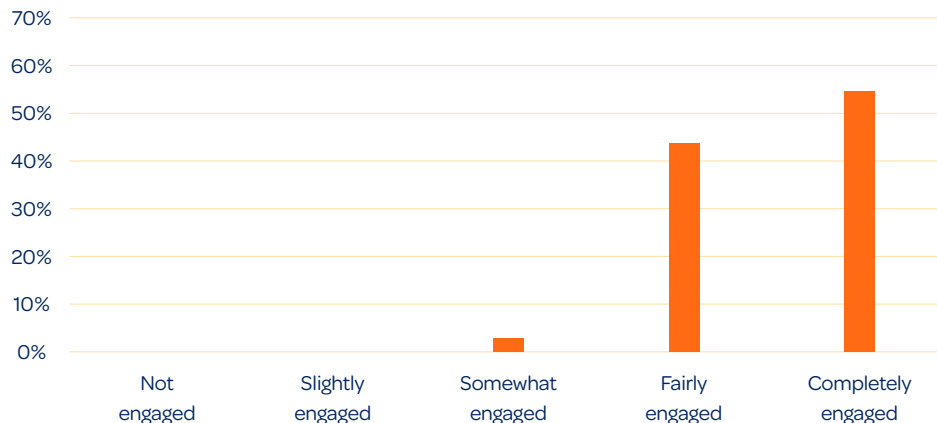
97%
of kaiako
said ākonga
were engaged

71%
of ākonga
had a great
experience

83%
of ākonga
would take
part again

★ Engagement with learning

97% of kaiako reported their ākonga were fairly or completely engaged with the learning journey.



★ What they liked

Ākonga most often valued learning something new, followed by the practical and hands-on experience, and working in teams (46%).



Experience completing the challenge

71% had a great experience doing the Power Challenge.

Take part again

83% said they would like to take part in another Wonder Project challenge as part of their school work.

"I thought it was exciting and new, as well as fun and not as hard as I thought it would be."

Coralie, Ākonga – Golden Grove School

KAIAKO experience



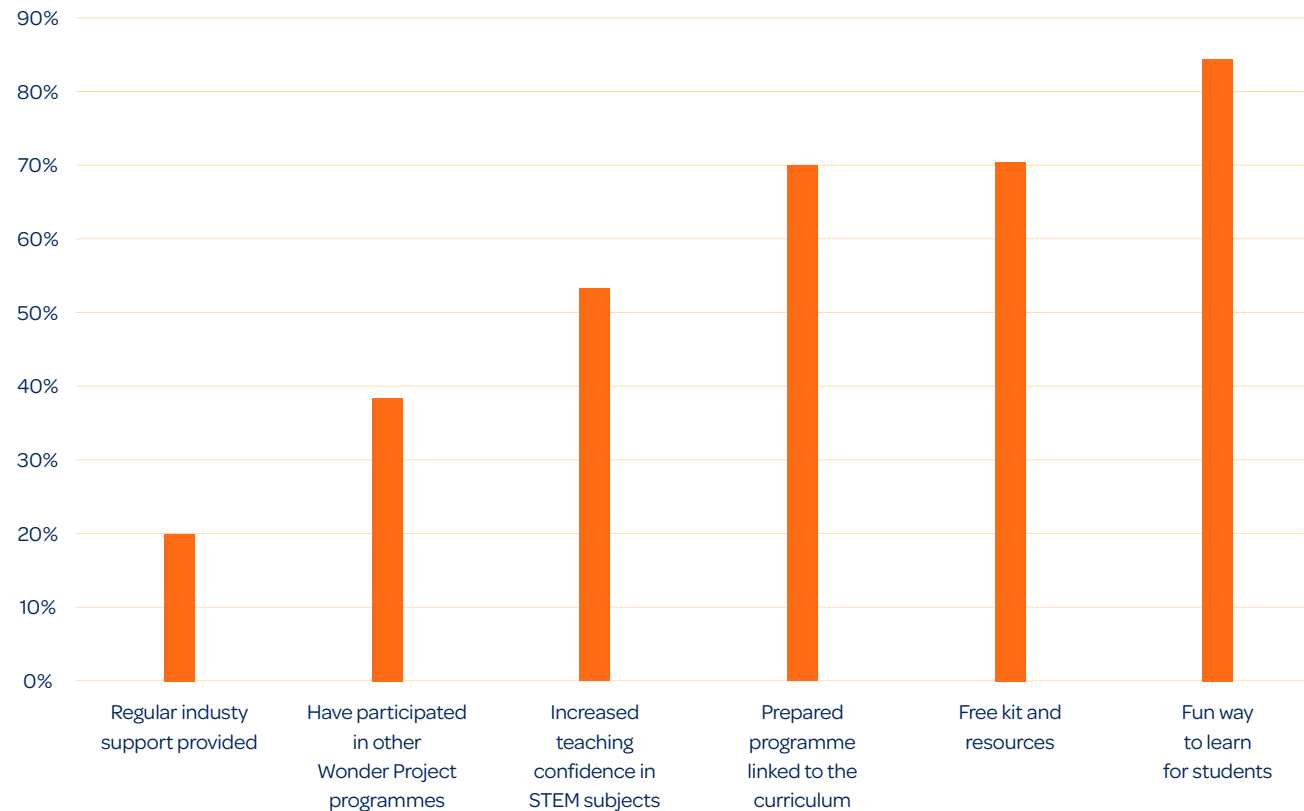
"The Power Challenge was very engaging for my class, getting students who don't join in discussions much enthusiastically asking questions."

Alida, Kaiako – South Wellington Intermediate School

REGISTERING

★ Motivation to sign up

Kaiako primarily registered because the Power Challenge looked like a fun way for ākonga to learn. A prepared curriculum-linked programme and free kit and resources were also strong motivations, while more than half wanted to increase their confidence teaching STEM.



CONFIDENCE

96% increased their STEM confidence
of kaiako

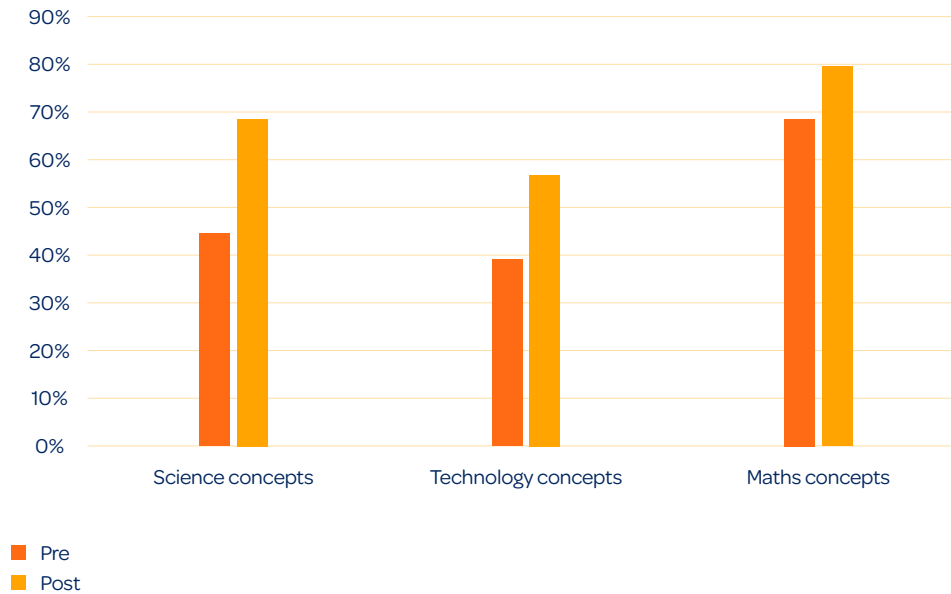
★ Teaching STEM subjects

96% of kaiako said participating increased their confidence teaching STEM. The proportion feeling fairly or completely confident rose from 42% before the challenge to 67% afterwards – a 61% increase.



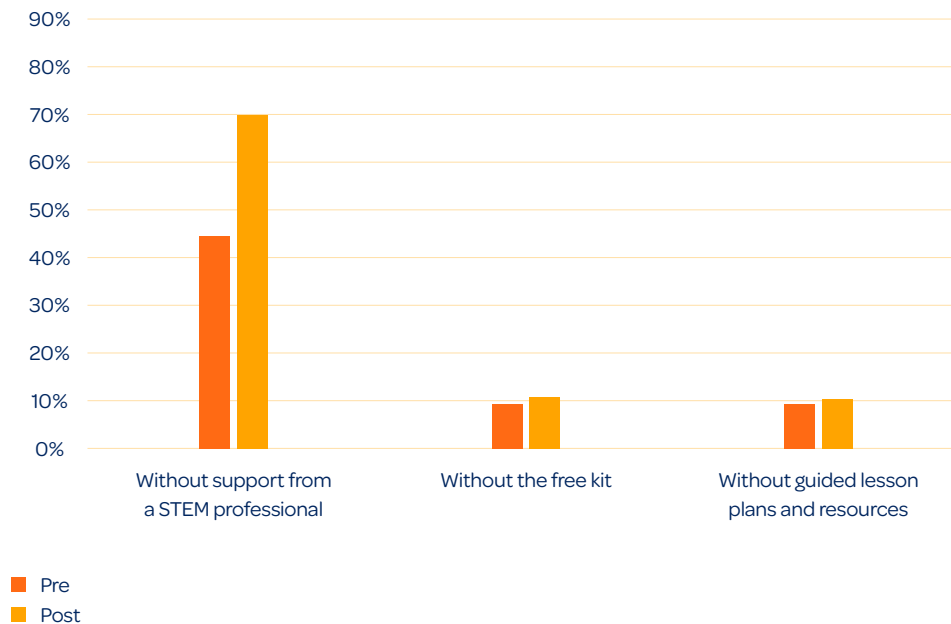
Demonstrating STEM concepts

There was a 34% increase in kaiako feeling fairly or completely confident demonstrating STEM concepts overall.



Wonder Project support

After completing the programme, kaiako felt more able to run the challenge without a STEM professional. They continued to place substantial value on the power kit and guided resources, reinforcing the role that practical equipment and ready-to-use teaching materials play in delivery.



“The Wonder Project made it easy in terms of planning and executing a purposeful and engaging unit of learning that was outside my comfort zone.”

Rebecca, Kaiako – Papamoa College

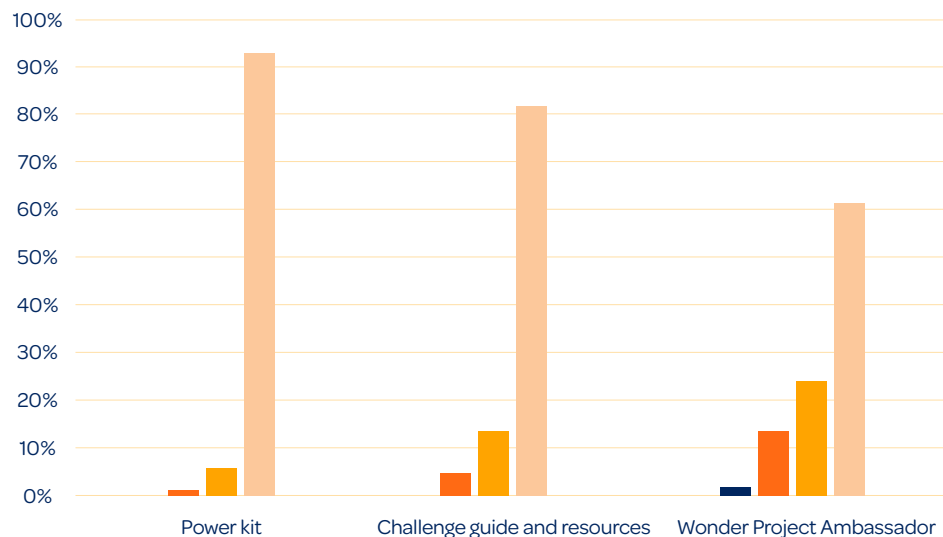
CHALLENGE CONTENT

92% of kaiako said the challenge was inclusive

Resources

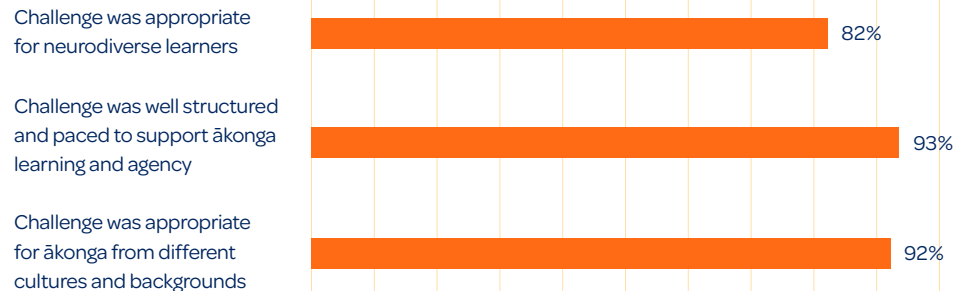
Kaiako rated the power kit and challenge guide particularly highly. Where an ambassador was involved, 89% said they were effective and their involvement and real-world experience made a big difference.

- Not helpful
- Somewhat helpful
- Helpful
- Very helpful



86% of kaiako said the online Learning Hub was helpful, easy to use and navigate. Satisfaction was also high for the teaching content with 89% saying they were fairly or completely satisfied, and 90% saying the same about the ākonga module content. 87% of kaiako that used the assessment resources provided were also satisfied with those.

Accessibility and inclusiveness

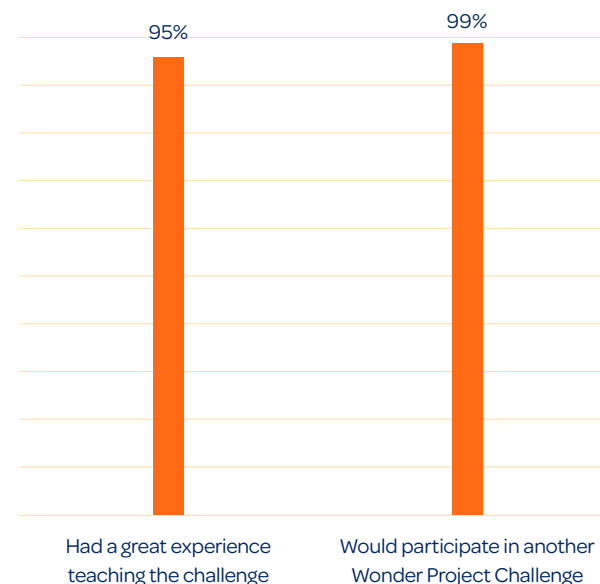


ENJOYMENT

76 Net Promoter Score

Kaiako Net Promoter Score (NPS)

The kaiako NPS rose to 76, with 80% classified as promoters for the Wonder Project. 99% said they would take part in another Wonder Project challenge, and 95% said they had a great experience teaching the Power Challenge.



AMBASSADOR experience



"I found the most meaningful moments came from learning alongside the students, being open to the journey, watching their ideas grow, and seeing that's where the magic really happens."

Di, Ambassador - Transpower



CHALLENGE CONTENT

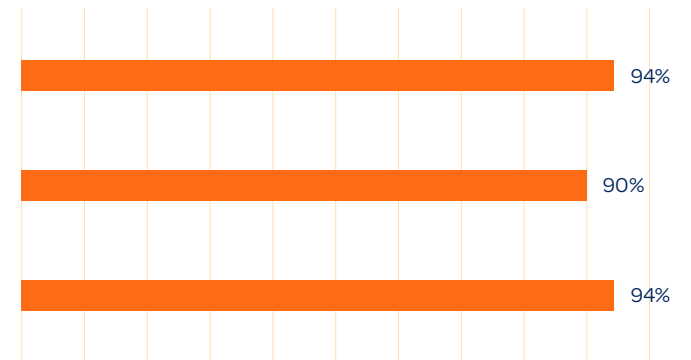
★ Resources

Ambassadors reported strong satisfaction with the challenge content: 94% were satisfied with the teaching materials and ākonga modules, and 90% were satisfied with the training. These results were all higher than the past five years.

Satisfied with the teaching content

Satisfied with the ambassador training

Satisfied with the ākonga module content



"It expands your thinking into how to explain things to non-technical people."

Craig, Ambassador – WEL Networks

ENJOYMENT

73 Net Promoter Score
NPS

98% said they would do it again
ambassadors

Ambassador Net Promoter Score (NPS)

The ambassador NPS rose to 73 from 54 in 2025, with 73% classified as promoters for the Wonder Project. 98% said they would take part in another Wonder Project challenge, and 98% said they had a great experience supporting the Power Challenge.

Would participate in another Wonder Project challenge



98%

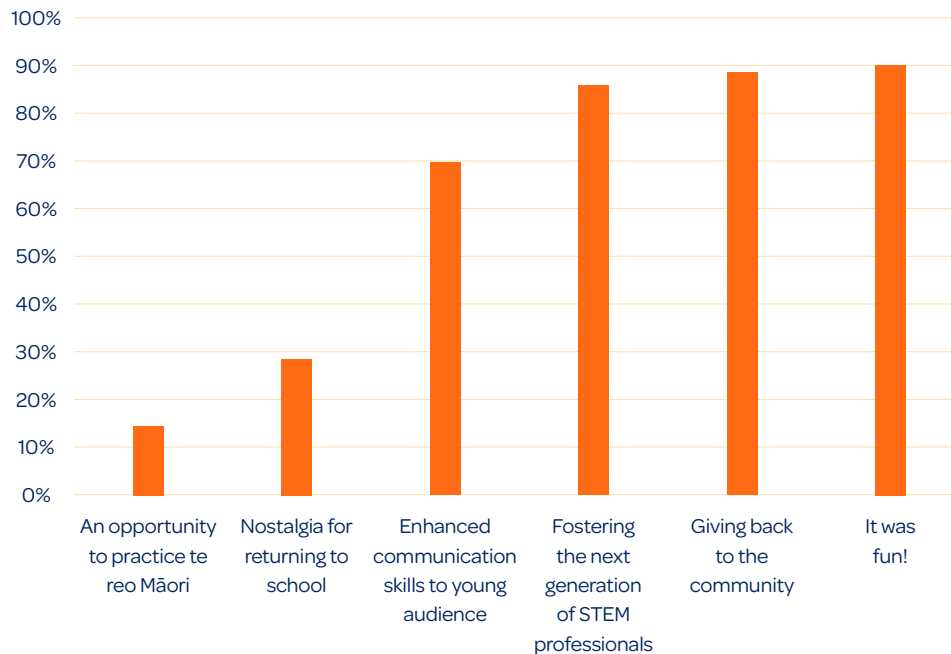
Had a great experience supporting the Power Challenge



98%

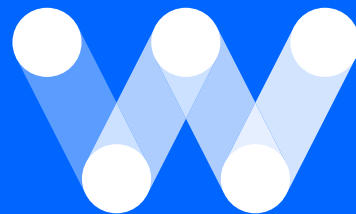
Benefits

Ambassadors most often valued having fun, giving back to their community and fostering the next generation of STEM professionals.



"It was fun and challenging, but very rewarding. I've learnt valuable skills on speaking and working with students."

Jefferson, Ambassador – Beca



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Project

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