

Developing a culturally responsive practice

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article

This story of one school's steps towards improving culturally responsive pedagogy may be helpful for others wanting to address similar issues. Compiled by NZASE Science Communicator Mike Stone.

From 2018-2020 Ian McHale worked with a decile 7 co-ed school to address an imbalance – Māori and Pasifika students were not represented as well in traditional senior science classes as they were in internally assessed science courses. Ian found it challenging and particularly rewarding work and felt it made a real difference. The school received Teacher-Led Innovation Funding, largely used to cover relief for PLD (Professional Learning and Development) sessions.

Survey and data findings

They began by collecting and analysing student, parent and teacher voice (using face-to-face meetings and online surveys) and achievement data from year 9 and 10 students.

A significant proportion of students said they did not enjoy science as it was currently taught. Māori parents thought the students did not feel connected to the science curriculum; that success depended on which teacher their child had; and that Mātauranga Māori was

poorly represented in the science curriculum. They wanted to be better informed.

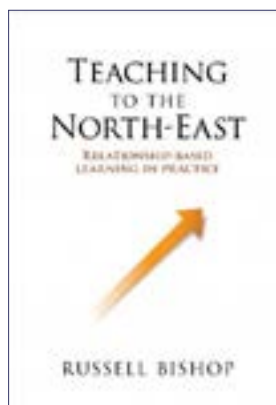
Pasifika parents said their children felt alienated, topics were not relevant or interesting to their children, and reported their children being treated differently, yelled at and picked on by some teachers.

The data showed Māori and Pasifika students were under-represented in the senior sciences and had lower achievement across all levels compared with other ethnicities. Discussion of all this evidence helped teachers to see a need for change and indicated some directions.

Exploring best practice

The PLD began with teachers looking at current best practice research. They explored key documents including *Tapasā*, *Tātaiako*, and the Effective Teacher Profile from Te Kotahitanga. They also discussed the recently published *Teaching to the North East* by Russell Bishop and *Coloring in the White Spaces* by Ann Milne.

Teachers identified key features and discussed implications for their practice. Although teachers were aware of these documents, this was the first time they had



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Effective teachers	Okay teachers..	Great teachers..	Amazing teachers..
Show use of prior learning	Investigate what students already know about the topic	Use the students' prior knowledge as the starting point for the learning, and differentiate their plan	Co-construct the individual learning with some students depending on their prior learning

looked at them closely and considered how they could appear in their own practice.

Both the teaching and the PLD focussed on whakawhanaungatanga, the process of establishing links, making connections and relating to others in culturally appropriate ways. The PLD modelled this process and it continued into the classroom.

Changing pedagogy

Starting with the teacher strengths that their students identified as important, this group developed their own departmental Effective Teacher Profile. They not only identified the key characteristics needed, but what these might look like for teachers at different levels of effectiveness (see table above).

This document became central to the PLD and the teachers involved felt an ownership of the ideas. The two-page document focussed on 14 aspects of teaching, six centred on respect for the students and their cultures, the others focussed on effective pedagogy for their target students. The profile not only identified areas they could all concentrate on to achieve the aims for the project, it became a tool for measuring progress.

Changing curriculum

As well as this work on how science was taught, the PLD looked at what was taught. Did the curriculum offer opportunities for teachers to employ this best practice pedagogy?

Another PLD facilitator, Ally Bull, worked with the department on curriculum, and the PLD led to the focus changing to the Science Capabilities. They were looking for a more inclusive approach, which would move

science from being something done by people in white coats, to something all can do in their everyday lives and improve on.

The teaching program was changed in several ways to improve student enjoyment and success in science. The whakawhanaungatanga section was expanded and built upon students' prior knowledge. The focus of many topics was shifted towards developing capabilities rather than learning content.

For term 1, the teachers developed a unit about how a scientist behaves and the skills they need to do investigations. Students were explicitly introduced to the science capabilities with novel activities. Each capability was practiced and unpacked and the students kept a log of their progress.

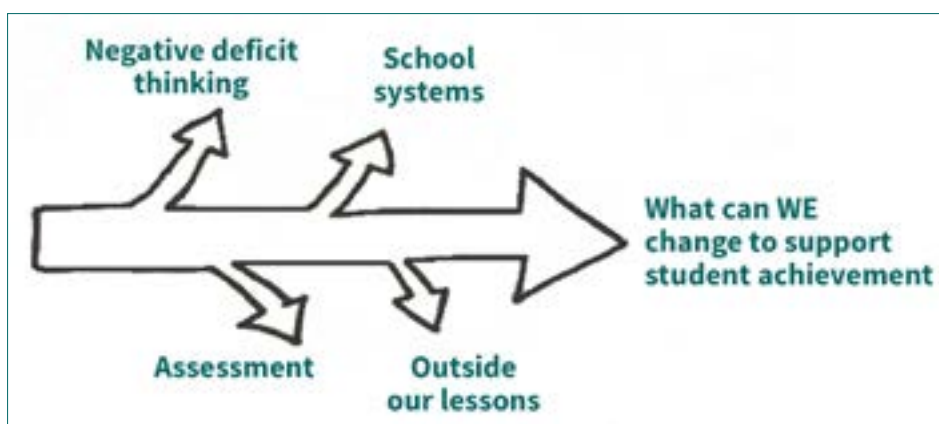
Students were encouraged to develop their own definition of science based on the capabilities that they had experienced. A lot of content was trimmed and any development of knowledge was much more focussed. Assessment was varied and built upon oral as well as written literacy.

Evaluating effectiveness

Implementing a change in both pedagogy and curriculum brought about a change for students. Students' engagement increased, especially that of Māori and Pasifika students, measured using a practical assessment.

Students said they were much more positive about science and found teacher instructions to be clearer. Achievement also increased by 17 percent for both Māori and Pasifika students. Topics that were taught more traditionally saw lower achievement across the board – and teachers said they did not enjoy teaching this way and wanted to





"In the PLD this was our key image – keep the main thing the main thing, keep focussed on our goal and don't be side-tracked by the same old distractions." Ian McHale

make changes for 2021.

Teachers rated themselves on each aspect of the Effective Teacher Profile. Across the department, the strongest aspect was aspect five – 'Maintains composure in the face of provocation and attempts to be fair and reasonable', while the weakest was aspect 12 – 'Awareness of how students learn and adjustment and co-construction of learning'. This showed progress in building relationships and also gave some direction for further improvement and discussion.

Teachers said they had a much better relationship with their classes; thought about students' individual needs more; critiqued and questioned what they were doing more; were more open to suggestions from students and other teachers; felt the PLD was a safe place to learn culturally responsive pedagogy; and were more confident to try Māori words and phrases.

Overall teachers reported a positive engagement with relationship-based learning and felt empowered to become better teachers.

References

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Ngā Kupu

Ako - Learn, teach, advise

Kaupapa - Topic, plan, proposal, subject, initiative

Kotahitanga - Unity, solidarity, collective action

Manaakitanga - Hospitality, generosity, support

Whakapapa - genealogy, lineage, descent

Whakawhanaugatangā - Process of establishing relationships

Wānanga - Conference, forum, educational seminar

From Te Aka Māori Dictionary



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