Can a place-based curriculum raise achievement?

Mana College (TLIF3-071)

For the Ministry of Education
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Summary

Mana College teachers had observed that a significant number of students were entering college at curriculum levels two and three for reading. They had tried various methods to improve literacy levels but were not seeing the benefits of them. They knew they needed to do something different.

\begin{align*}
\text{Ka oho te wairua} & \quad \text{When the spirit is awakened} \\
\text{Kai mataara te tinana} & \quad \text{When the body is alert} \\
\text{Ka aroha ki te aroha} & \quad \text{When love is unconditional} \\
\text{Ka te rama} & \quad \text{Enlightenment follows}
\end{align*}

A teacher inquiry in 2016 had increased student engagement through a new pedagogy that teachers eagerly adopted. However, the interventions did not significantly improve students’ achievement in reading or writing.

Mana College teachers had already used the local area of Porirua Harbour, Ngāti Toa rohe and Mana College as a metaphor for exploration and discovery within the New Zealand Curriculum. Using a place-based curriculum, students explored and discovered local contexts. The teachers’ hunch was that extending this way of learning would promote students’ connections to learning, strengthen the students’ diverse cultural identity and their agency, and ultimately promote achievement.

Inquiry Team

The inquiry team consisted of:

- Amanda Picken (project lead)
- Marina Anderton (project lead)
- Andrew McMillan (inquiry teacher)
- Elaine Clarkson (inquiry teacher)
- Amarjit Kaur (inquiry teacher)
- Awhina Edwards (inquiry teacher)
- Bianca Elkington (Ngāti Toa representative)
Background

The inquiry team explored how planning and implementing a place-based curriculum might improve engagement and accelerate outcomes in reading and critical thinking. Their testing showed that a quarter of students accelerated their learning and more than a third advanced their learning.

The teachers learned they had to change their pedagogy with a place-based curriculum. They saw that it demanded a shift away from a transmission model in which teachers are the holders of knowledge and skills that they pass onto their students, to a more student-centred approach. They also came to re-conceptualise the notion of place-based curriculum to think of it more as one that is place-responsive and includes authentic links to the national and international context in which young people develop. Collaboration was far more important for the teachers when planning and implementing an integrated curriculum approach.

The inquiry

The inquiry was led by a group of teachers, with involvement from the local iwi, Ngāti Toa, which had a representative on the inquiry team, and supported by NZCER. It also involved all the year nine and ten teachers and students.

What was the focus?

The overarching inquiry question was ‘Can a place-based curriculum raise achievement?’

Within that inquiry, they also asked more specific questions. ‘Does a place-based curriculum change pedagogy? If so, in what ways?’ ‘In what ways does teaching and learning in a place-based curriculum improve student agency, achievement or critical thinking?’

The teachers wanted their inquiry to build on the ideas of place-based education and to explore how local connections can support students to express higher order thinking (critical thinking) and express their ideas through writing. The primary purpose of the inquiry was to improve students’ outcomes in reading, writing, critical thinking and agency.
What did the teachers try?

Teachers had previously run a five-week integrated programme with year nine students, intended to involve them in a range of experiences that connected them with their local environment, while helping them to develop a range of thinking skills. They saw that when students explored and discovered their local contexts (that is, their learning was place-based) their connections to learning were promoted, engagement was strengthened, critical thinking developed and ultimately achievement could improve. They wanted to explore this further and more comprehensively, through taking advantage of the opportunities created by a timetable change to longer learning periods averaging 80 minutes.

Their earlier placed-based curriculum (PBC) pilots showed them that the learning opportunities were not easily limited to one curriculum subject. They had initially planned to fully integrate learning across the four core subjects of English, mathematics, science and social science, using a whole-cohort model of learning. In the first trial, two large teams planned an integrated curriculum across all four subjects, but took different perspectives. One class would be taught by one teacher from each team. The teaching teams were all timetabled at the same time to enable the team to offer varying approaches to learning. However, the teams identified that developing strong relationships with the teachers through smaller groupings was more beneficial than larger cohort learning.

The teachers in this pilot also found that planning and teaching from their own specialist area and three other subjects was not workable. So, in the second pilot, the teacher planning teams split the subjects up so that one teaching team focused on social studies and English, and the other team focused on mathematics and science. The teams still planned across the subjects to maintain the connections for learning and continued to derive the contexts from place-based themes. Once again, each teaching team was timetabled with the year 9 students at the same time, to enable flexibility of delivery.
Critical thinking was built into each place-based unit as a core learning focus. The school’s traditional assessment tasks did not have this focus and the teachers became aware that they did not set their expectations of the students high enough. Many of the assessment tasks were set at curriculum level three, when they should have been at levels four or five, so teachers created new assessment tasks and ways of making judgements about achievement using the SOLO taxonomy.

Successful student activities included:

- Students talking to Ngāti Toa about business initiatives following the iwi’s Treaty settlement to get ideas for products that align with Ngāti Toa’s aspirations and values, and which they could sell at a school market day.
- Creating model miniature buildings and investigating and designing suitable insulation products, inspired by inadequate insulation in many students’ homes.
- Action projects that arose out of a study of Zealandia’s conservation and restoration approached, in comparison to practices in Porirua.
- Students using a high level of critical thinking during a visit to Parliament to query why their bi-cultural nation was not more evidently reflected in the surroundings and following that up with letters to local MPs with suggestions on how to improve that.

What happened?

Student outcomes

Year 9 e-asTTle reading results showed that 24 per cent of students made accelerated progress (that is, they gained three or more sub levels) and 37 per cent made improved progress (that is, between one and two sub levels). This acceleration generally occurred for students who were at level three or below at the start of the year. Fifty-seven per cent of the year 10 students made either improved or accelerated progress.

Adopting the SOLO taxonomy framework enabled the team to implement a more consistent approach to curriculum assessment, with higher expectations of achievement than in previous years. Teaching of SOLO and critical thinking practices became more explicit. Seventy per cent of year 9 students achieved at level four of the curriculum, two per cent achieved at level five and 28 per cent achieved at level three.
Student engagement was strong, particularly for projects where they had ‘real’ connections with the community. Teachers noticed a lift in performance when students worked with a range of professionals with authentic tasks. Students particularly liked ‘passion’ projects based on social action resulting from studies they had undertaken earlier in the year.

Students said the combination of changed teacher pedagogy and local contexts of learning encouraged their agency. They showed they were capable of deeper thinking that the teachers previously expected. When teachers lifted the levels they set assessments at, many students stepped up to successfully complete new types of tasks. Students with specific learning needs also made stronger learning gains than the teachers expected.

**Changes to teacher practice**

The place-based curriculum team showed they were open to new ideas and learnt how to collaborate with each other. The use of rich local contexts of learning and the focus on critical thinking drove changes in pedagogical practice.

The teachers originally structured place-based curriculum to support significant changes in pedagogical practices, but at that time they were unable to carry through some of the wholesale changes they wanted. They found that the need for teachers to develop strong relationships with students and help new teachers establish themselves meant they did not realise their vision of: team teaching with larger groups; specialist teachers carrying out workshops where necessary; and students working with teachers who could support them best in their projects.

Integrating the curriculum was challenging. They found that mathematics and science made a strong pairing, as did English and social studies, and decided to restrict curriculum integration to these natural pairs of subjects for future years. However, they identified that other subject areas, such as technology, could also be integrated, and informally drove contexts for learning in option subjects.
What did they learn?

The teachers identified four things they needed for success:

1. Teachers need to be willing to take risks and push beyond their own comfort zones if they expect students to do this too. They need to be seen to be learning and figuring things out, modelling what these practices can look like.

2. The sense of ‘ako’ is important. Sometimes it is teachers who are learning and the students who are teaching them. Sometimes everyone learns together.

3. It is important to let go of some past practices – for example, a relentless focus on ‘coverage’ at the expense of other potential learning goals.

4. Teachers need to learn how to work productively with each other when units of work are integrated across traditional subject boundaries. Collaboration does not happen automatically and there are different ways of achieving a partnership that supports student learning.

Despite successfully implementing changes to assessment, the teachers felt there was still a dislocation between the rich learning delivered during each unit and the more formal separate assessment event. They still felt they needed to stop the learning near the end of the unit and prepare students for the assessment to come. This has inspired them to begin experimenting with a portfolio approach where they can use evidence from classroom learning tasks without needing to set up separate assessment events. They put in place scaffolding to support the teaching team through this transition by developing templates and examples of activities teachers can use to contribute to the assessment of specific achievement objectives.
The teachers discovered that the local and wider community had a different perception of place-based curriculum to the teachers. The community thought it meant getting to know the local area, while the teachers took it to have a wider scope so that students are able to successfully participate in a national and global society. Place-based learning does not always need to be interpreted in a literal physical sense. A different place can resonate powerfully for students when they make links to their own context and lives. This realisation was a key moment in the shift from talking about place-based to place-responsive learning and inspired them to rename the forward thinking, flexible curriculum they developed a ‘place-responsive curriculum’.

Teachers also discovered that giving students agency in a place-based context is not an all-or-nothing call. In a richly structured unit of work, there can be many small points at which they need to make decisions for themselves. They also made some units too complex in their initial design, partly to keep students busy and moving along. The contexts that worked most powerfully were those where the central core of intended learning was simple and clear throughout.
Reference List


**For further information**

If you would like to learn more about this project, please contact one of the project leaders, Amanda Picken, at amanda.picken@wegc.school.nz