

Infinity Learning Maps case study

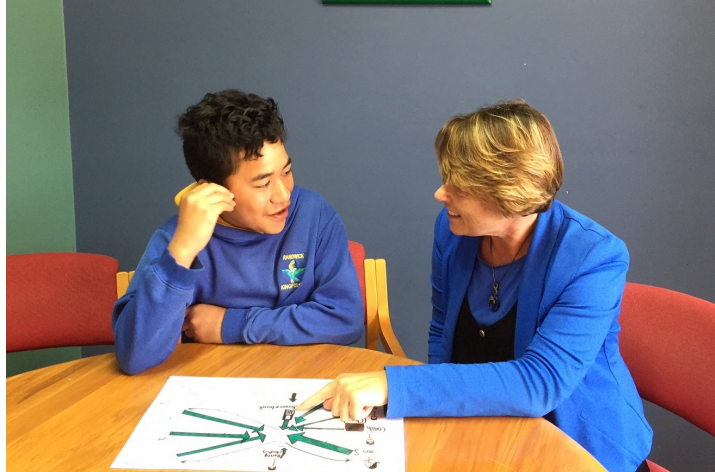
Students inform development priorities for a network of schools

Annan, B., and Wootton, M., 2017

<http://infinitylearn.org/>

Introduction

During the design phase of Infinity Learning Maps, an earlier version of Learning Maps were in use within a national strategy in New Zealand called 'Learning and Change Networks'. The government's aim for the strategy was to encourage collaboration among schools to lift all students to National Standards in reading, writing and mathematics (Annan & Talbot, 2013).



Approximately 15 percent of New Zealand schools (350 of 2,500) signed up to the strategy, which ended up becoming one of five global strategies selected for intensive analysis within the OECD Innovative Learning Environments (ILE) project (OECD, 2015 - view video here <http://bit.ly/1jzmvCQ>). This case shows how leaders of one network of schools used Learning Maps to add student data to other data sets to agree on strategic priorities for change across their group of schools. For more detail about this early version of strategic use of Learning Maps and the subsequent design of the personalized Infinity Learning Maps and the process and use go to <http://bit.ly/InfinityOnlineResource>

About the network of schools

Leaders of six schools in the Naenae community in Wellington, New Zealand, agreed to collaborate as a network of schools within the national Learning and Change Networks (LCN) strategy (Annan & Carpenter, 2015 - <http://bit.ly/2jwXweA>). The Naenae network leaders were attracted to new ideas that the LCN strategy had to offer, especially understanding the child's experience of learning. One principal commented that it was: *"Time to regroup, to change and make sure that we grow so that our kids don't miss out"*. The learning maps played a big part in that growth as teachers would be getting information about students' experience: *"Right from the horse's mouth"*.

Network strategies

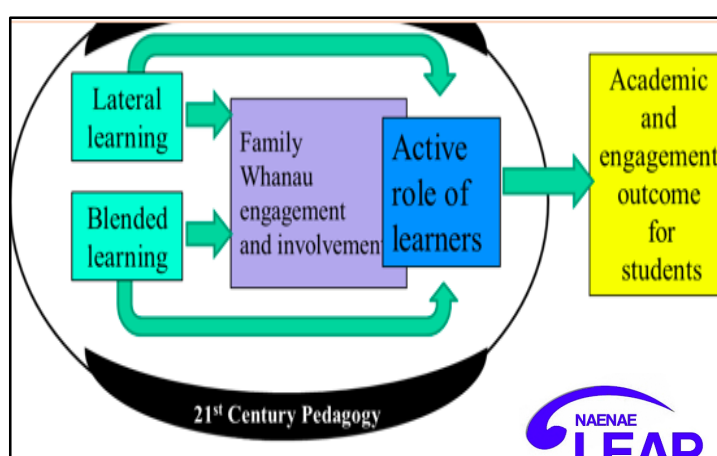
Using student achievement data, the network leaders identified student learning in reading, writing and mathematics as key achievement challenges that needed to be addressed across

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the six schools. The leaders were trained in the Learning Maps process to understand the students' perspectives about why those basic learning areas were challenging them. Priority learners drew their maps in one of the focus areas, either reading, writing or mathematics. They then visited other network schools with principals, enthusiastic leaders and family members to hear what other learners were discovering from the mapping process. Networking about learning created new levels of energy as leaders, teachers, families and whānau found out how their children thought about learning how to learn.

The network leaders and teachers met again after the networking to analyse the data about why reading, writing and mathematics was so challenging to the priority learners. They found that most of the children were passively going through the motions of learning <https://youtu.be/3NWqkPkPYmg> They were not connecting beyond the teacher with family, whānau (extended family) or friends to share what they were learning. The leaders' diagram for change shows four themes that came to the fore for the leaders. In order of priority they were; i) learners becoming more active in their learning, (ii) family and whānau engaging with their children's learning, (iii) supporting children to learn from one another (lateral learning) rather than socialise or goof off during class, and (iv) using a mix of digital and non-digital mediums (blended learning) to learn. The leaders felt that those four themes were indicative of 21st century pedagogy.



The leaders and teachers settled on that set of change priorities but they were challenged by their facilitator to go back and check that the children and families agreed with them. Another round of discussions with students and families found that they did agree with the set of change priorities but they ordered them differently. Parents agreed with the teaching professionals that the highest priority was for their children to become more active in their learning. That meant all the adults agreed that the children should take more responsibility for their own learning.

However, the students placed 'family and whānau engagement' and 'living in the modern world' first, then 'active learning' second. They said they felt safe and more confident in their learning with their mums and dads close by and that they are living in the modern world so have to learn about it.

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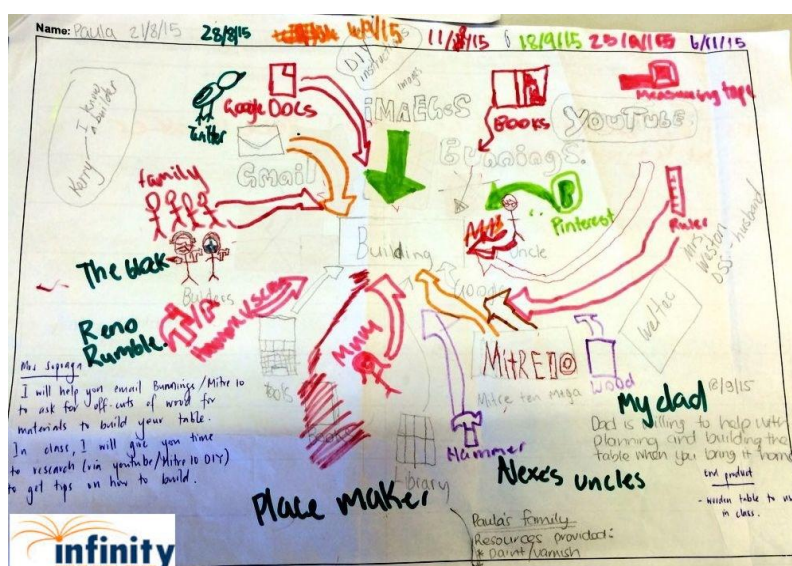
See video of two priority learners, Awanui and Melodie, sorting out their change priorities after they had developed a shared understanding of the dimensions:

Part 1 <https://www.youtube.com/watch?v=JDehfOoP1xg>

Part 2 <https://www.youtube.com/watch?v=ttWglSeLD5s>

Some teachers within the network were keen to bring together a group of priority learners to plan passion learning projects so they would become more active learners. Network leaders supported their strategy, which they called: “Akoranga o Naenae (AoN); A passionate learning team in an innovative learning environment.” See the Excitable Educator’s blog for more detail. <http://aonteachers.blogspot.co.nz/> Some students participating in AoN also took part in the national trial of Infinity Learning Maps. Both strategies focused strongly on lateral learning between students <http://bit.ly/2jmr8le>.

The re-scripting in this story is about priority learners following their passion and the belief that they **can** achieve even if they are struggling with reading, writing, maths. Based on the experience, they achieve better if they are empowered with self-belief and engaged in learning relevant to their interests. Conversely, they do not achieve if they are disengaged with repetitive over-scaffolded tasks. Parents and wider whānau were invited to attend all AoN sessions. Parents that did attend engaged with the knowledge building about learning-how-to-learn in the future, the mapping exercises and the students’ presentation of learning.

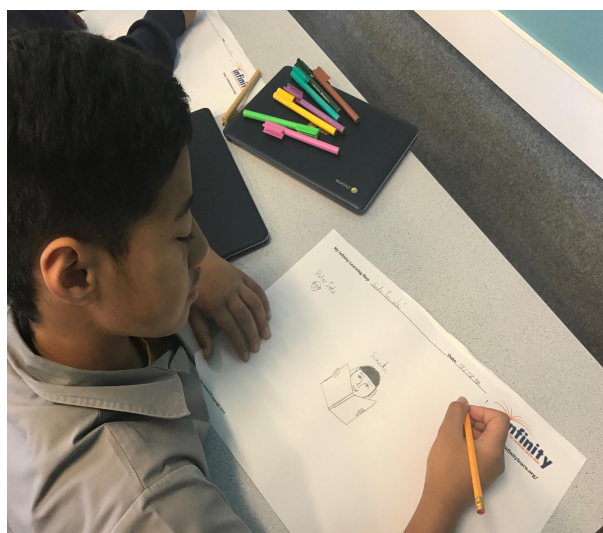


Paula was one student involved in AoN and his passion project was about building. To the left is his Infinity Learning Map used to plan and reflect on his learning weekly. Each coloured date is a different reflection and the colour matches the action in the map.

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Parents attending mapping sessions with their students developed an understanding of how their children learn, the goals they were setting and how they could support them to achieve those goals. Paula's whole family attended the session where the children shared their learning with their families and wider community. Both Paula and his Mum talked about the experience <https://www.youtube.com/watch?v=cTgFpDPJ4QA&t=4s>



A student named Sada from another school, Holy Family School, who was an English Language Learner, also engaged in the mapping process. His Dad attended a session where the children were drawing their first Infinity Map in the context of reading. Sada's Dad observed the process and commented that Sada had not communicated about his learning. His dad believed that this was because he thought in two languages. He also mentioned that Sada had two older, 'clever' sisters and Sada was not the same as them. Sada recorded his thinking about his map <http://bit.ly/2jn9P9o> . His Dad listened to

his explanation and commented about his surprise that Sada's capability to think and talk about his learning. <http://bit.ly/2jmWXQq>

Impact of network activity

The first noticeable impact of the use of learning maps and related networking activities were accelerated gains in academic achievement among priority learners. The National Standards data improved significantly. The table below shows one school's National Standards data in writing, which typifies the network's significant shift of about one third of the learners moving from below and well below National Standards to At National expectation.

National Standards Writing Data, the same students, from 2012-2015
Rata Street School

	2012 After 3 years	End 2014 Year 5 students	End 2015 Year 6 students
Above National Expectation	17%	16%	20%
At National Expectation	33%	47%	60%
Below National Expectation	37%	30%	7%
Well Below National Expectation	13%	7%	13%

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The second impact of the new ideas were the positive mindset and practice changes among leaders and teachers about future-focused learning. They stopped supplying learning and started including students and families in discussions about developing more relevant capabilities in learning-how-to-learn. This video clip from Dyer Street School shows the impact of a new form of parent learning night

<https://www.youtube.com/watch?v=ZbMgASzu8RI&t=1s>

The quote below from a network leader captures the overarching flipped mind-set shift.

“Through our learning and change network we manufactured opportunities for priority learners, teachers, whānau and leaders to inquire into their current learning situation, especially through the learning maps. We flipped the way we usually worked and started with the kids and their whānau. Teachers and leaders then worked together with the kids and the families to identify what to change to improve the learning for the kids.”

(Enthusiastic leader background presentation to staff, 2016)

One of the Naenae network schools, Rata Street School, has also integrated the Learning Maps into their teacher inquiries and their appraisal cycles and they have developed a more personalised approach for the students to set a “learning-for-life’ goal. Deputy principal, Glenda Stewart, recently commented: *“I would find it hard to do anything now without checking in with the kids first and getting their perspective.”*

Principal, Dave Appleyard commented: *“The other initiatives were sort of top down, facilitators would work with leaders, leaders would work with teachers, teachers would work with students. This initiative prompts all the people within the school environment to design the work, and design their own actions for their part in it, at the front end of things.”* See full video of three school principals and a lead teacher comment.

<https://www.youtube.com/watch?v=kxjg0wM8juE> .



Rata Street School captured the value of the learning maps for their students, teachers, leaders, families and whānau. This vignette and other information is shared with the many visitors that go to Rata Street School to learn how schools in low decile communities can accelerate academic achievement so priority learners become successful learners.

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How Learning Maps Have Helped Rata Street School

The information from the learning maps gave us a school strategic direction that was not driven by Leaders. It came from all the stake holders-kids, teachers, whanau and leaders. The maps gave our priority students a strong voice.

The learning map starts with how the student sees their learning, and all other stake holders fall in place to support them.

The learning goal that kids identify from their learning maps helps them in many areas of their life. They are starting to see the link between academic learning and day to day real life learning.

The learning goal is helping parents see that they can support their child out of school in ways that aren't simply emulating school practices. These ideas are starting to come from the whanau members themselves, rather than the teacher telling them what to do.

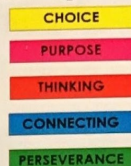
The maps help students to see the importance of making the BEST choice, audience, connection for their purpose. It helps them be more active and more connected in their learning. There has been an shift in how active the kids are in their learning, and how engaged they are in what they learn.

It is rich source of evidence that shows the progress a student is making in the way they learn.

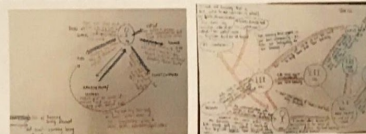
Teaching practice continues to change (and improve) as a result of what we learn from the kids' learning maps.

The learning maps provide evidence of the impact a teacher's goals/changes to practice have had on their students' learning behaviours.

Learning for Life



How parents and whanau can help
 Extra reading before sleep at night.
 More counting practice in baking etc



Concluding comment

The Naenae network successfully lifted confidence and capability in academic learning among priority learners. They dared to try new ideas, which supported them to break through plateaus from earlier schooling improvement approaches. Their creative ways of collaborating were recognised internationally at a Global Education Leaders Partnerships (GELP) forum in India in 2013 (Annan, Stewart & Talbot, 2013). As the network progressed, elements of their work were included in reports to the OECD Innovative Learning Environments (ILE) project (Annan & Talbot, 2014; Annan & Carpenter, 2015; OECD, 2015). At the heart of this global recognition is a desire among the school leaders and teachers to create strategies that connect with what is inside the minds of children and their families and whānau (extended family).

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Acknowledgement

The authors of this case study would like to acknowledge and thank the leaders of the Naenae network for opening themselves up to our critique and challenge over several years of schooling improvement and networking projects. We also appreciate the Naenae leaders remaining open to sharing their stories with their New Zealand colleagues and with international colleagues who are striving to create future-focused learning environments. Special thanks to Glenda Stewart for joining the Infinity team as a practitioner-facilitator to input into Infinity Learning Maps teacher workshops across New Zealand and Australia and to Principal Dave Appleyard and the Rata Street board of trustees for agreeing to release Glenda to fulfil this role. We also acknowledge the New Zealand Government and Ministry of Education for funding and supporting the Learning and Change Networks strategy.

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