RMIT UNIVERSITY

SVA Social Ventures Australia

JULY 2020

UNLEASHING THE POWER OF THE COLLECTIVE IN EDUCATION

The Impact Evaluation of SVA Bright Spots Schools Connection

—

Appendix One: Case Studies

Contents

Case Study 1: Rooty Hill High School **4**

1.1 School demographics 4

1.2 Project Action Plan – “Career capable, future-focussed” 5

1.3 Transforming new knowledge and mindsets into school improvement practices 8

1.4 Impact on student outcomes 10

1.5 Drivers of impact 10

1.6 Potential areas of growth for The Connection 12

1.7 Key insights 12

Case Study 2: Dandenong North Primary School **14**

2.1 School demographics 15

2.2 Project Action Plan – “Learning from a High Performing Teacher” 15

2.3 Transforming new knowledge and mindsets into school improvement practices 19

2.4 Impact on student outcomes 21

2.5 Drivers of engagement 21

2.6 Potential areas of growth for The Connection 21

2.7 Key insights 22

Case Study 3: Mount Burr Cluster **23**

3.1 School demographics 24

3.2 Project Action Plan – “Using STEM to connect educators, students and community through collaboration and inquiry” 24

3.3 Transforming new knowledge and mindsets into school improvement practices 29

3.4 Student outcomes 30

3.5 Drivers of engagement 30

3.6 Potential areas of growth for The Connection 31

3.7 Key insights 31

Case Study 4: Stirling North Primary School **32**

4.1 School demographics 32

4.2 Project Action Plan 33

4.3 Transforming new knowledge and mindsets into school improvement practices 35

4.4 Student outcomes 36

4.5 Drivers of engagement 36

4.6 Potential areas of growth for The Connection 37

4.7 Key insights 37

Rooty Hill High School students and teachers

CASE STUDY 1: ROOTY HILL HIGH SCHOOL

When Rooty Hill High School (Rooty Hill HS) first joined The Connection as a Powerhouse school in 2014, Principal Christine Cawsey AM was not certain that the school merited the name. She and her leadership team knew that they wanted to strengthen teaching and learning of the General Capabilities at Rooty Hill, to equip their students for life beyond school. However, they had struggled to find the time or resources to turn their plans into action. With the support of SVA, Rooty Hill HS has emerged as a true system leader: refining its strategic approach to whole-school improvement, leading the charge of developing teaching and assessment of the General Capabilities in New South Wales, and sharing its expertise across the Australian education system. In 2016 and 2017, this work earned Rooty Hill recognition from *The Educator* magazine as one of 40 schools awarded the Innovative School of the Year Award. Five years after joining The Connection, Christine recognises the school's transformation, stating "We think we are a Powerhouse School now".

1.1 School demographics

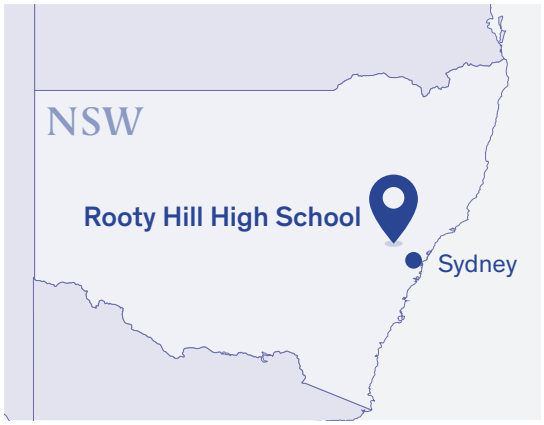


Figure 1: Rooty Hill High School, New South Wales

Rooty Hill is a comprehensive community school with 1100 students in Years 7 to 12. The school is situated 43km west of the Sydney CBD. It serves a diverse community, with 55 per cent of students coming from a language background other than English. Indigenous students make up five per cent of the student body. Rooty Hill has an ICSEA of 953, and half of its students come from families in lowest quarter of socio-educational disadvantage.

1.2 Project Action Plan – "Career capable, future-focussed"

Project purpose

The goal of Rooty Hill HS's Connection project, "Career capable, future-focussed", was to lift the expectations, capacity and achievement of members of the school community, so that students would have the opportunity to increase their options for study and work beyond school. As Christine said, "We refuse to be defined by where our students are at age 17 or 18. We want to see them at age 19 and 25, and then we'll know whether we have been successful".

Project outcome

When Rooty Hill HS first joined The Connection, their Project Action Plan (PAP) consisted of four discrete interventions (ACER, 2018). After their first year in the program, the leadership team evaluated their progress and found that this approach was not as effective as the team had expected. Looking to the other Powerhouse Schools in the cohort, the team realised that to join those ranks, they needed strategic coherence across the work of the school, rather than implementing stand-alone projects.

Figure 2: Rooty Hill High School's 2018-2020 Strategic Directions and Projects

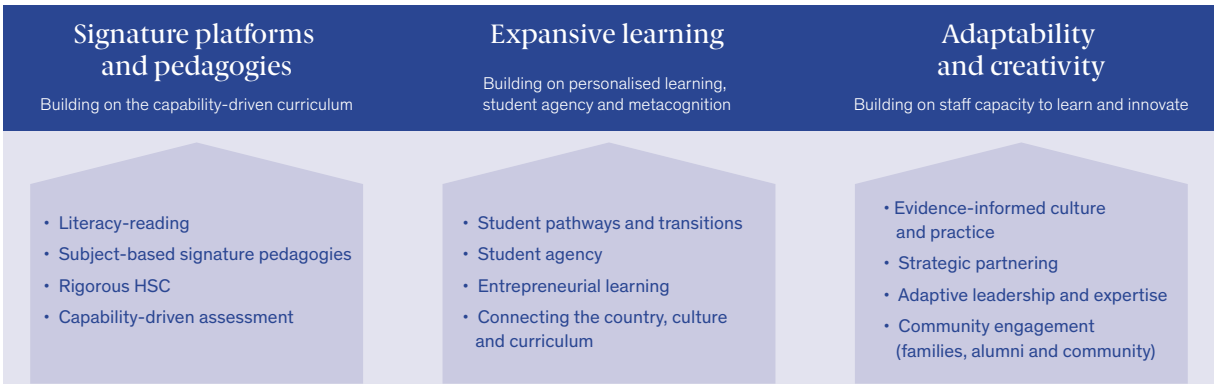


Image adapted from (ACER, 2018).

The leadership team redesigned the project to align to their New South Wales Department of Education whole-school plan for 2015-2017. The new plan tied the original projects to broader strategic directions that were each geared towards whole-school improvement. Christine said the school deliberately built upon the successes of that strategy when developing the school's current 2018-2020 plan (see Figure 2): "Our SVA 2015-2017 plan is not just part of business as usual now. We have moved onto new business in our new strategy, building on that prior work".

The outcomes of Rooty Hill HS's work in partnership with The Connection are manifold. Christine and Conny Mattimore, Deputy Principal of Rooty Hill HS, said that the collaborative, flexible partnering relationship that the school built with The Connection team, and the network's willingness to recognise the professional skills that existed within the school, inspired Rooty Hill HS's leadership team to transform their approaches to partnering across the board. The school has developed a comprehensive partnering protocol (see Appendix), which codifies this shift, and ensures that both the school and its partners generate value from any current and future relationships. The school has since built productive, ongoing partnerships with The Mitchell Institute from Victoria University, and The Origin Foundation.

Additionally, Rooty Hill HS's participation in The Connection further boosted the school's strong reputation and gave the leadership team more power to advocate for innovative approaches to secondary education. Christine said that "The Connection relationship was incredibly important. It enabled us to pursue the projects we thought were most important, and we were able to deal with the pain-points in the system because of that relationship."

At the level of teaching and learning in the classroom, Christine said that it was the "Expansive Learning" strategic direction, in particular, that truly flourished through the school's partnership with The Connection. This strategic direction was founded on the school's initial work to personalise each student's learning as Rooty Hill HS sought to capture the learning journey of each student, not only their final attainment. One of the most celebrated achievements to emerge from the work with The Connection was *#MyLearningHub*, an online platform which enables all students at Rooty Hill HS to reflect upon and document their individual learning journey and progress as per the Australian Curriculum Assessment and Reporting Authority (ACARA) General Capabilities standards. The assessment process of self, peer and teacher validation of the evidence that students upload to *#MyLearningHub* also presents an opportunity to build the metacognitive and writing skills that will support them in tertiary education and the workplace. This initiative has garnered attention from schools and government bodies across the Australian education system and is discussed in detail below.

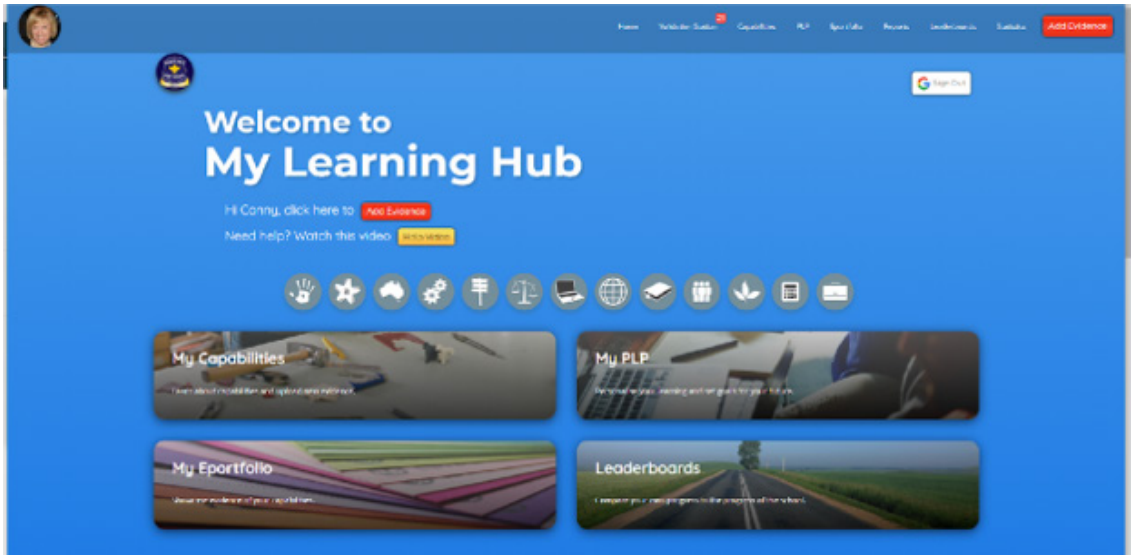
In focus: #MyLearningHub

Building students' capacity to understand and demonstrate the General Capabilities was essential for the school to achieve its goal of "career-capable, future-focussed" students. When Rooty Hill HS began the work with The Connection in 2014, there was no tried-and-tested model of a capability-driven curriculum for the school to implement as ACARA had only released the General Capabilities in 2013. Rooty Hill HS was in uncharted waters – the school needed to design a curriculum and assessment model to fit its needs.

The school developed its own student-friendly version of ACARA's learning progressions and benchmarks for each of the General Capabilities, in the form of "I can" statements, that allowed students and teachers to understand what the capabilities look like in practice, for example: "In thinking critically, I can ask questions of complex issues and information". To meaningfully capture evidence of student achievement against these progressions, the school developed its own in-house online E-Portfolio, *#MyLearningHub* (see Figure 3 below). On *#MyLearningHub*, students upload work samples and evidence of themselves demonstrating the ACARA General Capabilities, which are validated by their peers and teachers with reference to the learning progressions and ACARA benchmarks. This evidence can take the form of photographs, audio, video or other documentation. Students gain a deep understanding of how they can embody the General Capabilities in practice.

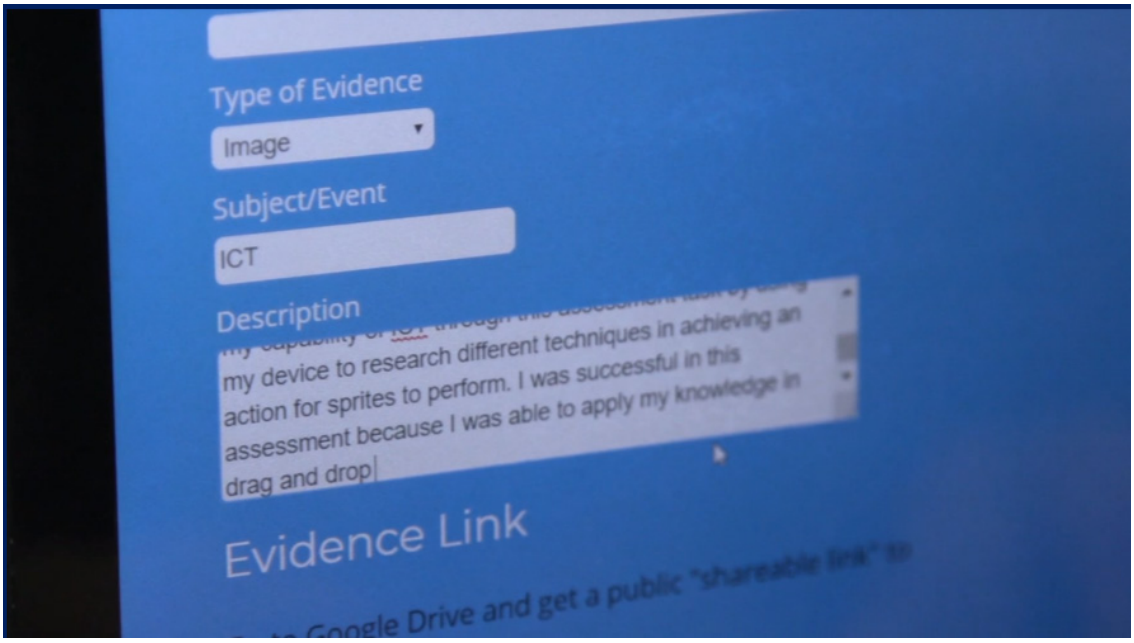
The assessment process described above, in which students select and annotate evidence of their own progress in the General Capabilities, also encourages students to reflect critically on their own work to select the best evidence of a given aspect of the Capabilities (see Figure 4 below). Students understand their own learning process and journey, and are well-practiced in the valuable skill of annotation, which sets them up for success in tertiary education.

Figure 3: Screenshot of #MyLearningHub



Source: Presentation provided by Rooty Hill High School to RMIT.

Figure 4: Photograph of student uploading and annotating evidence of the Information and Communication Technology General Capability to #MyLearningHub



Source: Presentation provided by Rooty Hill High School to RMIT.

In Personalised Learning conversations, which are held twice a year, students review their progress, set new goals and refine their personalised learning plan. The information on *#MyLearningHub* is also used to guide parent/teacher meetings, encouraging parents to engage more deeply with their child's learning. At the end of their time at Rooty Hill HS, students can use their uploads to *#MyLearningHub* as a digital record of their progress and achievements at school.

1.3 Transforming new knowledge and mindsets into school improvement practices

"We're obsessed with evidence" – understanding impact with innovative use of evidence

> "Everyone (outside schools) wants to focus on the idea of "teacher improvement", rather than improving teaching as evidence becomes available. There is often a limited focus on improving the learning, progress and achievement of students, using evidence from the classroom. In any year, there are complex, intervening variables that can impact on student learning trajectories. It is important to start with student evidence." – Christine Cawsey AM, Principal

Christine said that exposure to the leadership practices of other Powerhouse Schools in The Connection reaffirmed her commitment to using improvement in student progress as the ultimate arbiter of her success as a leader. While recognising the importance of improving teaching quality to achieve better student outcomes, Christine emphasised that all decisions about teacher professional learning and practice, as well as the most important measurement of its success, should stem from evidence of student learning and progress.

> "SVA gave us permission to look way beyond the narrow measures of reading, writing, attendance, and suspension data. We're obsessed with evidence, particularly evidence taken from beyond traditional high stakes, narrow focus testing." – Christine Cawsey AM, Principal.

Through the partnerships fostered in The Connection, Christine and the leadership team have transformed their understanding of how to best collect and use evidence in their school. They have used Results-Based Accountability, Moments Theory from Cliff and Dan Heath, and coding methods from qualitative research, to expand the ways in which they measure their impact on student learning. Christine and Conny are clear that at Rooty Hill HS, telling "the story behind the curve" is key. Staff are trained in qualitative coding methods of processing written and oral evidence, which is used to triangulate other data sources. Christine said, "When people see the patterns of stories behind the curve, they are more likely to accept accountability." Teachers and students are invited to write their own "stories behind the curve". To this point, Conny said that Rooty Hill HS has a "culture of mutual respect, teachers won't be judged if their data isn't where we expected it to be. We want to understand what has impacted student progress, both positively and negatively".

In addition to drawing out the patterns in the school's data, Rooty Hill HS's leadership team are interested in the evidence of the school's "value-add" to students, and the impact of their expansive learning on the lives of students beyond school. This is evident in the way the school assesses both student progress in the General Capabilities, and identifies the key ways of 'knowing, doing and being' learnt in each subject. Christine said that "When you're being innovative, you have to have the evidence that supports your choices and actions as better than the other choices you might have made. We have abandoned initiatives when they didn't hold up under the evidence."

"If it's not in the school plan, it doesn't happen" – Leading change strategically

At Rooty Hill HS, the whole-school strategic plan is no longer drawn up at the start of one year then left in the cabinet – it is a living document that guides the work of the school. Teachers join one of 12 professional learning and leadership project teams, each of which is concerned with one of the projects underpinning a strategic direction in the school plan. Teachers work together in these teams to develop a theory of change, supported by a body of quality research which is then applied to the implementation of new work and learning practices. Explicitly tying all staff's work and professional practice to the school plan – which corresponded directly to their Connection project – makes the plan visible. Conny stated that:

> "We look at our achievement against the plan's milestones, and all staff are now very familiar with the school plan and school planning process. There's lots of cross-project work, it's talked about. If it's not in the school plan, it doesn't happen."

Christine and Conny said their knowledge of partnering, sustained innovation and managing complex change has grown through their years in The Connection. They recognise that, while the best changes they have made used processes identified in research and high quality evidence, the processes were not linear:

> "It's got to be confusing. Change, especially when it is bottom-up can involve multiple false starts and failures. We faced plenty of that. We had to learn to live with confusion"

"The power is in the networking" – Leading innovation across the system

Members of the team at Rooty Hill HS are often invited to share their expertise with system leaders and other schools. The school has worked closely with the Australian Curriculum and Assessment Reporting Authority (ACARA), developing illustrations of practice around General Capabilities and Career Education for use on the ACARA website (ACARA, 2019a). The Conny described that partnership as "hugely successful", and one that would not have occurred as readily without the school's engagement with The Connection. Rooty Hill HS has presented *#MyLearningHub* to the cohorts of STEM Learning Hub and Star Hub schools. Several of these schools describe Rooty Hill as directly influencing their work with the Capabilities. Christine sees sharing effective practice as they key to system-wide school improvement: "the power is in the networking".

"Changing the culture by changing work practices – that's what being a Powerhouse is about" – Establishing a learning culture that sustains improved teaching practice

Rooty Hill HS's leadership has always provided teachers with rigorous professional learning designed to embed both the knowledge and the culture that would support the school's innovative teaching and learning. All professional learning is designed and delivered at the "highly accomplished" standard, as defined by the "Professional Engagement" domain of the AITSL Teacher Standards (Australian Institute for Teaching and School Leadership, 2019). This standard requires teachers to "work together to solve a problem" (Australian Institute for Teaching and School Leadership, 2019). Christine says that ensuring teachers can work collaboratively using the standards has helped embed the project-driven learning and teaching model across the school. Christine said that setting this high bar for teachers' professional practice has underpinned a "change in the culture" of the school, by changing work practices. The school was assessed in 2019 as excelling on all 14 elements the New South Wales School Excellence Framework, Students appear to have noticed the change – a state-wide survey showed that students' perception of teacher quality, teacher-student relations, learning climate, and expectations for success were above the New South Wales average.

1.4 Impact on student outcomes

As Christine noted, "schools are not sites where nothing has happened before", and it is difficult to attribute improvements in student outcomes to any particular intervention. However, throughout the school's time in The Connection, they recorded improved student engagement and learning. Student attendance rates increased, and the number of negative behaviour incidents fell significantly. Christine reported that the 2018 cohort of Year 12 students, whose achievement levels were well-below the expected grade level when they arrived at Rooty Hill HS in Year 7, were the school's highest-growth year group to date. These students' average HSC results rose to a level much closer to the state average than their results in Year 7, representing significant growth in student achievement in relation to the state average from the time they joined Rooty Hill HS to their graduation.

Reflecting the school's work on fostering the General Capabilities in its students, Rooty Hill HS also reported that students' digital portfolios, and their assessment against the ACARA General Capabilities benchmarks, demonstrate that they are "successful learners, confident and creative individuals and active citizens". The school noted that when students transition from high school, they "demonstrate academic and social dispositions and readiness for life beyond school and for tertiary study".

1.5 Drivers of impact

Rooty Hill appreciated the interstate aspect of The Connection, the similarities with other participating schools, the length of the program, and the ability to align the project to the school plan.

Christine said that she valued the interstate collaboration that The Connection made possible, which ensures that knowledge of best practice is able to diffuse across the whole system:

> "The value of the network is in the fact that it has been done across state boundaries, which is rare. There are lots of things that other states do better, and vice versa. Connecting across those boundaries, that's powerful systems leverage."

When discussing the potential to grow professional learning networks, Christine noted the benefit of working in a curated network that is driven by schools themselves:

> "Where's the locus of control? … It works because it's different…We have much more in common with some interstate schools [in the Connection] than some of our local schools. There's power in working with schools with similar value sets, and similar ways of working."

As noted above at 1.1.3, Christine and Conny found that aligning their SVA project plan to their whole-school improvement plan was a game-changer:

> "Over time we moved from a recipe-driven, fill-out-the-form kind of thing, to how can you take the best information from your actual school planning, that allows you to have an integrated project, with the partners walking alongside. That was really helpful."

The five-year length and commitment to the program allowed the school to go deep into the work, to "reflect and change" rather than working too fast to complete a project that was not having its desired impact.

1.6 Potential areas of growth for The Connection

With success comes the potential to grow further. While Christine and Conny attribute much of the school's recent progress to the partnership with The Connection, they also reported two key challenges to engagement throughout their time in the network. Conny said that the initial templates used to track the progress of their Project Action Plan were not as useful as they could have been, and that she appreciated later flexibility negotiated with The Connection to refine and adapt the measures that the school would apply to define its progress as the program continued.

Christine said that the early Connection events had "a high level of tension" and were often focussed on questions of "what we should do, and how to do it". She found that the partnership became more productive when both parties moved their focus from the content of the project, to instead "spending a lot more time thinking about the partnering relationship with SVA – then we made the shift." Christine said that partnering with The Connection, and the other partners with whom The Connection team helped the school to connect, inspired the leadership team to manage their partnering relationships more strategically, to ensure that both partners benefit from the shared work. To embed this improved approach to partnering at Rooty Hill, the leadership team developed a 2018-2020 Purposeful Partnering Care Pack, with a detailed policy document and partnering evaluation tool.

1.7 Key insights

Importance of consciously defining the nature of partnerships and the partnering relationship

Working with SVA to negotiate the ways in which the partnership would support the school and making explicit what each side of the partnership hoped to achieve, was a turning point in the school's improvement journey. Christine described this work as an essential precursor to creating successful partnerships that benefit students and the community. Rooty Hill HS has embedded this strategic approach to partnering through formal policies and evaluation tools, which have since supported the school in new, productive partnerships outside of their work with The Connection.

Deep alignment of the whole-school strategic plan to the school's work in The Connection enabled greater impact across the school

Another turning point in Rooty Hill HS's journey to becoming a true Powerhouse school was the school's strategic approach to aligning the content of its work in The Connection to its wider school plan. Making this shift in its second year in The Connection enabled coherence between the school's strategic reporting obligations, its professional development plans, and the innovative work it pursued with SVA.

Collaborative school networks based on relationships between like-minded educators have proved most productive for Rooty Hill HS

Rooty Hill HS found The Connection's creation of "networks of like-minded schools" with "similar value sets and similar ways of working" to be a different strategy to most networks in the system, and one that is "worth pursuing". The strongest partnerships that the school developed in The Connection were with schools with like-minded leaders. The interstate collaboration that The Connection facilitates was also important to Rooty Hill HS – Christine said that she strongly values interstate networks, as they result in more diverse contributions and help schools to overcome the potential for "shared ignorance and bias" in narrow local networks.

Importance of pursuing projects that the school believed to be the most valuable to its students

Rooty Hill HS is dedicated to changing the lives of their students for the better, long after they leave school. The school's work with SVA allowed it to design and deliver innovative ways to build the skills and capabilities to enable a culture that is adaptive, resilient and successful, while also improving their academic performance against more traditional measures. The flexibility of The Connection's model enables schools to pursue the projects most important to their students' longer term careers and life plans.

Dandenong North Primary School principal Kevin McKay and students

CASE STUDY 2: DANDENONG NORTH PRIMARY SCHOOL

Dandenong North Primary School (Dandenong North PS) joined The Connection as a Powerhouse school in 2014. The school has a strong record of excellence in teaching and learning and has long been recognised as a school whose students achieve results far above those expected from such a disadvantaged community. Many of Dandenong North PS's students, or their parents, arrived in Australia as refugees fleeing war and persecution.

School Principal Kevin Mackay OAM joined Dandenong North PS in 1983, when the school was at a very different place. Though the community has always experienced disadvantage, its students were from predominantly Anglo/European backgrounds, and the school culture was "tough", with many prescriptive rules. Since becoming Principal of Dandenong North PS in 1986, Kevin has witnessed many changes in the local area. He has consciously transformed the school into a values-based organisation, with deep roots in the community. Despite the steep challenges facing his students and their families, Kevin is adamant that every student can learn. He believes that the role of the school is to guarantee that they do:

> "Everyone can learn, given enough time, and small enough tasks. We find out what students need and keep pouring resources in to make sure they learn" – Kevin MacKay, Principal.

2.1 School demographics

Figure 5: Dandenong North Primary School, Victoria

Dandenong North PS is a primary school in the outer suburbs of Melbourne, 35km south-east of the CBD. It serves 839 students from Prep to Year 6. The school has an ICSEA of 940, with 55 per cent of its students coming from families in the lowest quarter of socio-educational disadvantage. Its student body is very diverse, with over 50 cultures represented, and 90 per cent of students coming from a language background other than English. One per cent of its students are Indigenous.

The school's cultural and linguistic diversity has shaped its approach to teaching and learning. Dandenong North PS does not teach a language other than English, as the vast majority of students already speak another language at home. This creates space in the timetable for a dedicated English as an Additional Language program that fast-tracks literacy in students who arrive at the school with little or limited English. Dandenong North PS also runs an intensive literacy intervention program called "The Reading Factory", which provides targeted support for students to reach the expected reading achievement level for their year group. The school also provides support for the wider school community.

2.2 Project Action Plan – "Learning from a High Performing Teacher"

Project purpose

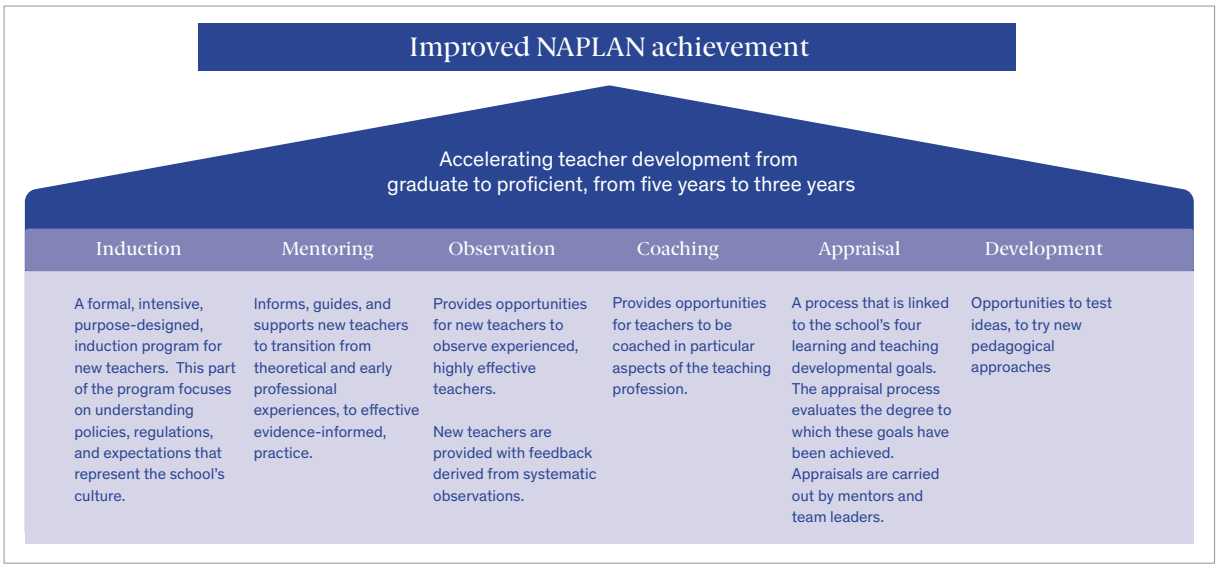
The roots of Dandenong North PS's project extend back to the mid-1990s, when the then Department of Education and Training appointed coaches who were to be deployed into selected schools to help improve student outcomes. Kevin saw the value in coaching and wanted to empower his staff to "own the process". He contracted training for his teachers to coach each other, and so "demystified" the coaching relationship. The school embedded this practice throughout the 2000s, and student achievement at the school steadily improved. However, just prior to joining The Connection as a Powerhouse school in 2014, the school's performance had begun to decline. Kevin said that given the school's reputation, complacency had crept in, saying "We believed our own hype". Compounding this problem was the retirement of several highly experienced teachers, who were replaced by an influx of new graduate teachers.

Kevin said that he was attracted to partnering with The Connection as a Powerhouse school because of the interesting way in which the organisation identified good educational practice. The purpose of Dandenong North PS's project with The Connection was to fast-track graduate teachers' development, to ensure that more students had access to a high performing teacher, sooner.

Project outcome

After record-high results in 2013, the school's NAPLAN results began declining. The school used the opportunity to work in partnership with The Connection to formalise and refine its approach to teacher development, with the goal of accelerating the professional growth of new teachers from "graduate" to "proficient" from five years, down to three years. The result was the IMOCAD program (summarised below in Figure 6).

Figure 6: Dandenong North PS IMOCAD model



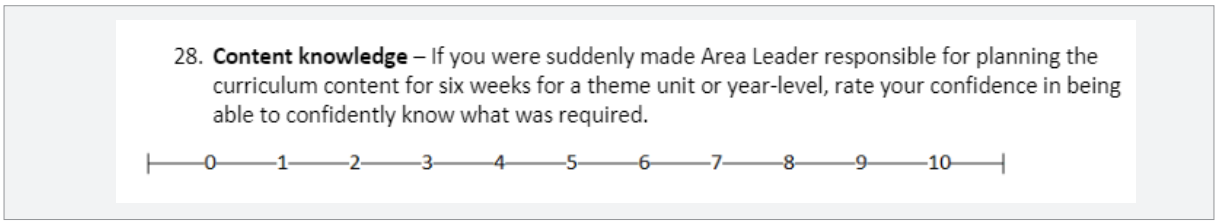
Source: modified from ACER Case Study, 2018.

In focus: the IMOCAD

Dandenong North PS's supports incoming graduate teachers by guiding them through a suite of targeted development initiatives – the IMOCAD – which includes an initial induction, ongoing mentoring, observation of other experienced teachers, targeted coaching, appraisal, and development. At the end of their work with SVA, the school had successfully developed their latest group of graduate teachers into "proficient" teachers in only three years, rather than the predicted five. That year, the school's NAPLAN achievement also showed improvement. Kevin reported that this upward trend continued in 2019.

The IMOCAD, and the "Snapshot" tool (see Figure 7 below) that is used to assess teacher progress, have continued to evolve. The school has continued adding questions to the Snapshot tool, which has grown from 40 questions to 60 questions, all mapped from the Australian Institute for Teaching and School Leadership (AITSL) Teacher Standards (Australian Institute for Teaching and School Leadership, 2019). The Snapshot tool continues to provide the basis of professional development at Dandenong North PS for all teachers.

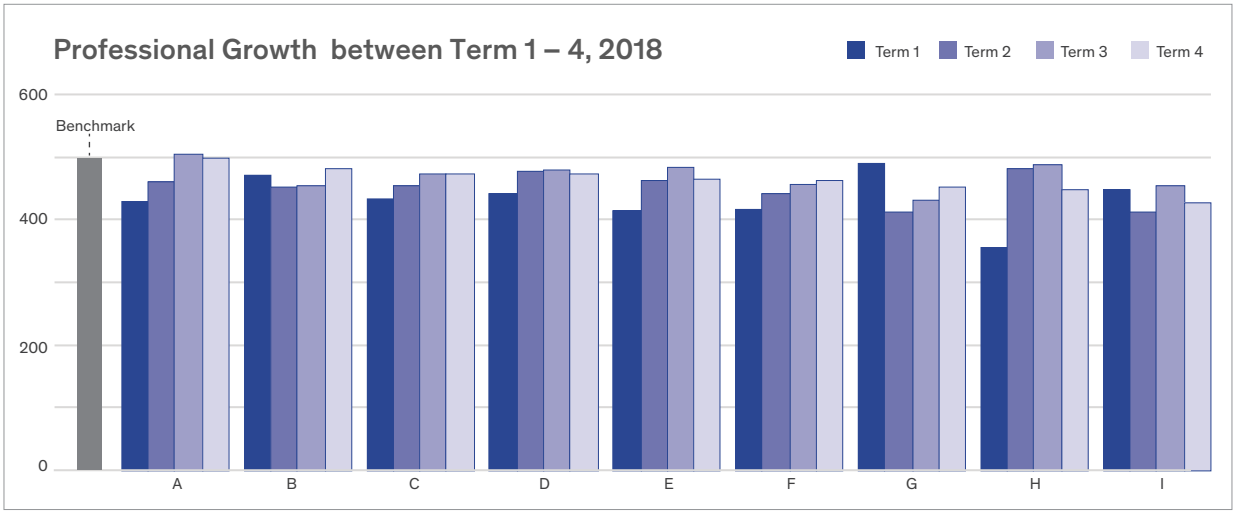
Figure 7: Sample question from the Snapshot tool



Source: Artefact provided by Dandenong North Primary School at interview

RMIT was fortunate enough to observe an induction meeting for new teachers who were to begin at the school the following year. During the induction, Kevin presented the new teachers with an overview of the student community, the IMOCAD program, and the school's ethos of the "Four Cs": care, courtesy, co-operation and common sense. He played a video created by students, in which they explained the role of the Four Cs in their lives at school. One student said: "We don't have rules, we have values. The Four Cs are what we live by. Rules can be negative. The Four Cs are positive, they tell us what to do." Kevin also briefed the teachers on the school's supportive, no-excuses approach to high quality teaching and learning. He openly shared de-identified data of teachers who had previously participated in the IMOCAD program, and revealed which teachers had continued on at Dandenong North PS, and those who were not asked to stay, based on their development against the Snapshot tool over their first year (see example in Figure 8 below).

Figure 8: De-identified data of new teachers' Snapshot survey performance



Source: Artefact provided by Dandenong North Primary School at interview

In focus: Student observation

A valuable off-shoot of the school's participation in The Connection was learning about the importance of developing student agency. One striking aspect of the way in which the school fosters student agency is the student observation program. Kevin said he had wondered about how students perceived their own learning and wanted to know how his teachers would react to having their lessons observed by students. He trialled sending small groups of students into classrooms to observe teachers, unannounced. As no teachers raised concerns, the practice continued.

That initial trial has grown substantially in scale and sophistication. A former student of Dandenong North PS has returned to the school to develop and administer a dedicated student agency program, which was partly inspired by the school's work with The Connection. The program runs as follows:

- Students from Year 2 and above volunteer to participate in a teacher observation program.
- Students select a teacher who is yet to be observed, and in groups of three or four, students spend 30 minutes in the classroom, observing the teacher. They take videos and photographs of the lesson and fill in a pro forma designed to help them to analyse the lesson.
- The students spend 15 minutes discussing their observations afterwards. They reconvene at recess or lunch, and provide their feedback to the teacher (see example in Figure 9 below).

Figure 9: Excerpt of student classroom observation form

STUDENT OBSERVATION

Teacher Name: X **Date:** 6/6/2019 **Team:** X

What was the LEARNING INTENTION of the session observed?
To be able to memorise your 9 time tables

Photo Number	Observation	Clarification
	Here is a warm up sheet that has a 9 times table and division questions. X started his lesson by doing this warm up sheet, he does this to always get the students ready for challening questions. q	HITS Strategy: Structuring Lessons

Source: Artefact provided by Dandenong North Primary School at interview, de-identified.

The program coordinator helps students to understand the pedagogical strategies that teachers are employing. She teaches them about "High Impact Teaching Strategies" – a pedagogy guide for teachers from the Victorian Department of Education – as a framework through which they interpret their observations. Figure 9 above shows that students can identify the teachers' strategies. Kevin said through this program, his students have developed a sophisticated understanding of the learning process.

2.3 Transforming new knowledge and mindsets into school improvement practices

"We treat kids as if they were our own" – Ensuring growth for every student

As noted above, Kevin does all he can to ensure that his students fulfil their potential. The school delivers personalised learning, to make sure that each student is tracking towards their expected achievement level. In his induction presentation to the incoming teachers, Kevin stated that:

> "We treat the kids as if they were our own. We want them to achieve a year's progress in a year, and we can do better. There'll be some kids who need more, and it's our job to get them going as fast as we can".

"Data drives our decisions" – Better use of data in decision-making and performance analysis

The school's use of data is crucial to achieving this vision:

> "Student data, it's the same with anything. Whether you're racing a car, or swimming for a competition, you want to see what's happening, make an informed decision about how to improve, then see if it's made a difference."

Dandenong North PS has hired a former principal and school reviewer to analyse and interpret the school's data. One aspect of this leader's work is to conduct item analysis on the school's NAPLAN results, to guide the leadership team's decisions about teacher development and learning interventions. While Kevin did not attribute these developments to participating in The Connection, he did note that he greatly valued learning about the Education Endowment Fund's approach to evidence collection and program evaluation from a presentation by Sir Kevin Collins at a Thought Leadership Gathering organised by The Connection, saying "it was along the lines of how we like to work – we were enamoured".

"Adding bows to their teaching arsenal" – Supporting teachers to develop effective pedagogy and assessment practices

New teachers continue to participate in the IMOCAD program. At the induction meeting observed, four graduate teachers and one experienced teacher who was new to the school, were being prepared to join the Dandenong North PS community in 2020. After completing the IMOCAD, new teachers who stay on at Dandenong North PS are also trained as coaches. Kevin said that by training teachers as coaches, his staff found that not only could they better support their colleagues' improvement, but that they could use their coaching skills to help their students learn, too, adding another "bow to their teaching arsenal".

Kevin said that recently, a comparison of NAPLAN data to teacher judgement data showed that both new and established teachers were often quite harsh markers. Through discussions with the leadership team, and adjusting the school's reporting templates, teachers at Dandenong North PS now report with 90% consistency against their students NAPLAN achievements.

"It's about culture" – Establishing a culture that promotes learning

When asked about how the school has been able to translate new practices into tangible improvements in teacher confidence and student outcomes, Kevin said that much of the school's success comes down to his willingness to be vulnerable:

> "It's about culture. You have to show vulnerability, from leadership. As a leader, you don't know everything. You and the teacher, you're both learning. I'll tell them what's working for me and what isn't, but let's work it out together."

2.4 Impact on student outcomes

Students at Dandenong North PS continue to achieve NAPLAN results far above those of students with similar levels of socio-educational disadvantage. While the school's most recent NAPLAN results (2019) have not yet been published, Kevin told RMIT that this year was no exception to the upward trend that began during his work with The Connection, and that the bottom level of achievement for his students was in line with Victoria's average achievement. Kevin reported that the school's student observation program, has allowed students to exercise agency in their learning, and to exercise their metacognitive abilities.

2.5 Drivers of engagement

The collaboration that The Connection facilitated was the most valuable aspect of the partnership for Dandenong North PS. Kevin said that he appreciated the connections he made with leaders from other schools in The Connection.

As noted above, Kevin reported that he found some aspects of the Thought Leadership Gathering very engaging. Sir Kevin Collins from the Education Endowment Fund, in particular, was "brilliant". He values being able to stay connected with The Connection, and to receive information about upcoming Thought Leadership Gatherings. It was partly through exposure to the work of other schools that Dandenong North PS became inspired to grow its own school's student agency program.

2.6 Potential areas of growth for The Connection

Despite taking real value from The Connection, Kevin said that ultimately, he feels that Dandenong North PS "gave more than we got" from the partnership. The school was often asked to present the IMOCAD at Connection events, which became repetitious. Kevin expressed that as the leader of a Powerhouse school, he was hoping to be stretched further into fields outside of education, such as corporate performance and leadership strategy, and found that the formula for the Thought Leadership Gatherings could be "constricting". Nonetheless, Kevin said that he appreciated keeping in touch with The Connection in the future.

2.7 Key insights

School's effective leadership is a key ingredient of success in The Connection

Strong and supportive school leadership was a key aspect of Dandenong North PS's successful Connection project. Kevin and the leadership team have a clear vision for the school – to help every child achieve, regardless of the barriers. Dandenong North PS's leadership team promotes this vision amongst staff, students and the school community, and ensures that each of these groups is given the support they need to succeed. Kevin's leadership style creates a school culture that encourages success – by expressing vulnerability as a leader, his teachers feel comfortable to acknowledge the challenges they face in their practice, and to productively discuss approaches to improvement without feeling judged. By empowering school leaders to articulate a vision through their Project Action Plan, and to share effective leadership practice, The Connection supports schools to transform new knowledge into school-wide improvement.

Dandenong North PS continuously measures student outcomes to inform school-wide improvement strategies

Dandenong North PS uses evidence of student outcomes to drive its decision making, and consistently reviews its decisions based on the evidence of their impact. Kevin's approach is to be up-to-date on innovative ideas and programs, to pilot these ideas, test for impact, and to amplify, modify, or do away with the program, based on whether it improved student outcomes. Examples of programs that emerged from this approach include the IMOCAD, the student classroom observation program, and the school's Reading Factory approach – both of these initiatives began with hunches and were refined and scaled as the evidence proved their impact. Dandenong North PS's explicit approach to defining, measuring and responding to data from its interventions aligns with the approach that The Connection's Project Action Plan documents promote. Dandenong North PS's experiences could provide instructive examples to Connection schools that are building their ability to use evidence effectively.

Mount Burr Primary School students

CASE STUDY 3: MOUNT BURR CLUSTER

The Mount Burr cluster is a group of small rural primary schools in the south-eastern corner of South Australia, who participate in The Connection's STEM Learning Hub program. Mount Burr Primary School (Mount Burr PS) leads the cluster, with Glencoe Central Primary School (Glencoe Central PS), Nangwarry Primary School (Nangwarry PS) and Beachport Primary School (Beachport PS) actively participating. RMIT met with principals from Mount Burr PS, Glencoe Central PS and Nangwarry PS at Mount Burr PS. The school is nestled in a small valley at the edge of the Mount Burr Township, and is surrounded by green, open spaces for students to pursue outdoor activities. The town is surrounded by timber plantations, which used to provide employment to many families in the region. However, jobs in timber milling have become scarce, and the unemployment rate in the town has risen.

Mount Burr PS Principal Anne-Marie Fitzgerald said that local sports clubs are often the centre of cultural life in Mount Burr. Rivalries between the local towns are high, both on and off the sporting field. Students and communities do not necessarily see themselves connected in a collaborative way but more in a competitive rivalry in isolated pockets. Erica Hurley, Principal of Nangwarry PS, said that her school's town faces the same issues. Lyn Houlihan, Principal of Glencoe Central PS, said that while her school community are comprised predominantly of dairy farming families who have not suffered the same levels of unemployment, the school's culture was similarly focussed on socialising, rather than learning.

While each school faces slightly different challenges, the cluster has used the opportunity to participate in the STEM Learning Hub program to address some of the community-based disadvantages its students experience, through helping students to connect and collaborate through STEM inquiry based learning.

3.1 School demographics

The Mount Burr cluster schools are dotted across the south-eastern corner of South Australia, roughly 400km from Adelaide. The nearest regional centre to Mt Burr Primary School is Mt Gambier, 50km away.

Figure 10: Mount Burr PS (lead school of Mount Burr cluster), South Australia

The schools' demographic statistics are as follows:

- **Mount Burr PS** serves 40 students from Reception to Year 7. The school has an ICSEA of 929, with 63 per cent of student in the bottom quarter of socio-educational disadvantage. Three per cent of its students are Indigenous, and three percent of its students have a language background other than English.
- **Glencoe Central PS** has 69 students enrolled from Reception to Year 7. The school has an ICSEA of 972, with 46 per cent of students in the bottom quarter of socio-educational disadvantage. None of its students are Indigenous, and none have a language background other than English.
- **Nangwarry PS** serves 56 students from Reception to Year 7. It has an ICSEA of 877, with 79 per cent of students in the bottom quarter of socio-educational disadvantage. 11 per cent of its students are Indigenous, and none have a language background other than English.
- **Beachport PS** serves 44 students from Reception to Year 7. It has an ICSEA of 967, with 43 per cent of students in the bottom quarter of socio-educational disadvantage. None of its students are Indigenous, and none have a language background other than English.

3.2 Project Action Plan – "Using STEM to connect educators, students and community through collaboration and inquiry"

What was the purpose of the project?

The Mount Burr cluster schools support students to overcome the isolation of their communities. Anne-Marie said:

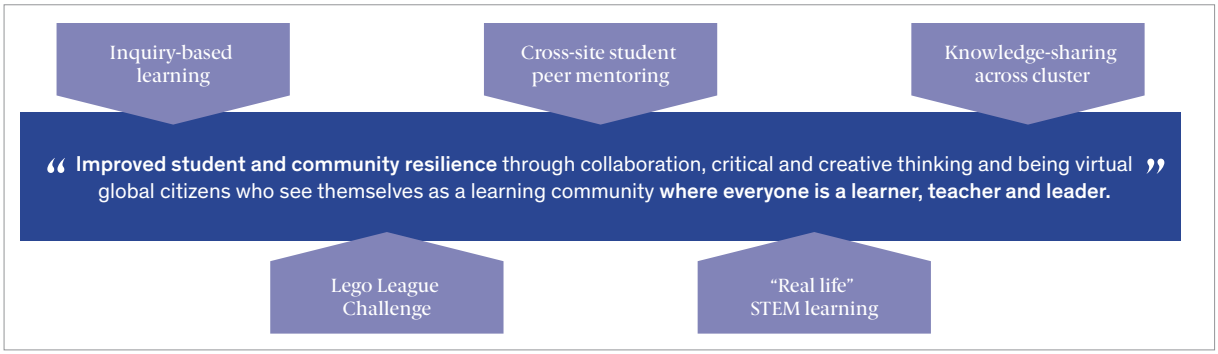
> The main focus is to give students experiences outside of the local environment. If you said to them, "Where do you see yourself in the future", generally it looks like it's in Mount Burr. They wouldn't see themselves as going to university. We spend a lot of time talking about not "What will you do next", but "What will you do after Year 12?". We want to open their eyes to new careers, especially in STEM.

The Principals hoped to transform the culture of their schools from one in which school was a place for socialising, rather than learning, to one in which each learner is an engaged and self-aware learner, with aspirations to pursue opportunities that they never have otherwise been exposed to. The cluster schools see the teaching and learning of STEM as being key to this transformation.

What happened during the project?

The separate strands of the cluster's Connection Project Action Plan – inquiry-based learning, use of technology, staff and student collaboration, and participation in external STEM completions – are collectively aimed towards fostering greater resilience and connections for students within, and beyond, their school communities (see Figure 11 below).

Figure 11: Mount Burr cluster's Project Action Plan



Source: Adapted from Mount Burr Project Action Plan and interview data

In focus: Inquiry-based learning

Through The Connection offerings, teachers were trained in the delivery of inquiry-based learning. This pedagogical approach allows students to learn the content of the Science and Mathematics curricula, while working together to answer an overarching question or problem. For example, the overarching question "You have moved to the pines with your family to live. There is no house. How could you make a humpy to live in?" guided the teaching and learning of engineering design for a class at Mount Burr PS.

Working in this way helps students to develop their collaboration skills, as well as the General Capabilities of Information and Communication Technology skills, Personal and Social Capability and Critical and Creative Thinking (see rubric in Figure 12 below). Year 7 students at Mount Burr PS undertake collaborative projects with the Year 8 students at their local feeder high school, to ensure a smooth transition to high school by fostering connection between primary and high school. Projects that tackle community issues, such as prevention of house fires, and disabled access to a local pool, helped students to connect their learning to real-world problems. Nangwarry PS and Glencoe Central PS are also implementing these practices. Both schools work with local feeder high schools. The in-school implementation of inquiry-based learning at these schools is developing, with guidance from Mount Burr PS.

Figure 12: Example of learning progressions for STEM Inquiry Unit, from Mount Burr PS

Learning Area	Developing	Competent	Advanced
Science	A circuit was included in the model	A solar powered circuit was used to generate electricity in the model including a light globe or motor.	A solar powered circuit was used to generate electricity including a light globe or motor and includes a switch.
	Attempted to explain how electricity was included in the model	Explained how the energy source (solar) was used to transfer energy to electricity and make the globe or motor work.	Used a combination of diagrams and words to articulate and demonstrate how energy is transferred to electricity and make the globe or motor work
	Explained where the model would be situated	Explained why a community would benefit from the model being in their town including ethical considerations	Explained with multiple reasons why the model would be beneficial to a community including ethical considerations
Design and Technology	Plans a solution including a drawing	Plan a designed solution including detailed drawings with labels and materials required	Plan a detailed design solution including a drawing with more than one "view" of the design
	Makes a model	Choses appropriate materials and tools to make the model	Makes a model articulating material choices and uses a range of tools to complete the model
Critical and Creative thinking	Test possible solutions	Predict possibilities, and identify and test consequences when seeking solutions and putting ideas into action	Predict possibilities, and identify and test consequences when seeking solutions and putting ideas into action justifying why the ideas were/were not successful
	With assistance evaluates and justifies the reasons behind choosing a particular problem-solving strategy	Evaluates and justifies the reasons behind choosing a particular problem-solving strategy	Evaluate and justify the reasons behind choosing a particular problem-solving strategy in detail with more than one reason
	With assistance explains intentions and justifies ideas, methods and courses of action, and account for expected and unexpected outcomes against criteria they have identified	Explains intentions and justifies ideas, methods and courses of action, and account for expected and unexpected outcomes against criteria they have identified	Explains intentions and justifies ideas, methods and courses of action, and account for expected and unexpected outcomes against criteria they have identified. Explains the challenges and how they informed the next possible solution

Source: Artefact provided by Mount Burr PS

In focus: Regional Lego League Challenge

Students from the Mount Burr cluster participate in the Regional Lego League Challenge in interschool teams. The schools report that this helps them to connect to the opportunities available outside of their small towns, while building both their capacity in STEM, and their ability to work collaboratively with students from outside their own towns.

The Lego competition also gave students the chance to work within their community on real challenges. For example, in one year, seven houses burnt down in Mount Burr due to appliances at home, and in response, students chose to develop an app that could detect overheating appliances.

In focus: Cross-site student peer mentoring

Using the technology provided through The Connection's partnership with Samsung Electronics Australia to learn about the world beyond their towns helped students to perceive themselves as "virtual global citizens". Students from Mount Burr PS were trained to teach digital skills to students from other schools in the cluster. This improved the students' digital literacy, as well as their Personal and Social Capability and capacity to collaborate with people outside of their own communities, rather than compete against them (see Figure 13 below).

The school supplemented their digital learning program with the "Digital Ninja" badges initiative that they "smart borrowed" – adapted and implemented to suit their own context – from another Connection STEM Learning Hub school. The badges are awarded to students who demonstrate digital competency. Once students earn a badge, they then pass their learning on to other students.

Figure 13: Student-led digital peer mentoring

Source: Mount Burr Project Artefact

In focus: Knowledge-sharing across the cluster

Mount Burr PS and Glencoe Central PS have used Google Education to collaboratively plan lessons across their sites. A leading teacher at Mount Burr PS said that the greatest improvement to teachers' practice that came from the school's involvement in SVA is in the consistency of pedagogy implemented across the site. Setting up Google Education across the school and cluster, to share resources and expertise, has helped to raise the standard of teaching. Staff now plan and moderate student assessments collaboratively and have conducted peer mentoring. Lyn reported that Glencoe Central PS is following Mount Burr PS's lead, in establishing consistent pedagogy, and that her school is focussing on increasing the uptake of technology by teachers to achieve greater impact.

3.3 Transforming new knowledge and mindsets into school improvement practices

Inter-school collaboration

Anne-Marie said that participation in The Connection allowed her to develop connections to other schools whose practice has inspired changes that she has brought to Mount Burr PS. Visiting Prospect North Primary School was particularly influential. That visit has sparked the school's journey to developing student agency, and Anne-Marie says this would not have happened if she hadn't been part of The Connection.

Improving approaches to using evidence of student learning to drive decision making

Erica said that she valued The Connection events as an opportunity to reflect on her leadership of Nangwarry PS. She particularly valued learning about Helen Timperley's Spirals of Inquiry at a Thought Leadership gathering. This event was something of a light-bulb moment for her as a leader:

> "[Timperley's Spiral of Inquiry] has set up our thinking. It was very powerful for us, this is what we need to do, this is what we're looking for. Almost two years down the track, we're going to launch into using them explicitly next year"

School-industry partnership

Lyn said that the Glencoe Central PS community is engaged and supportive of the school, but that this support usually manifests as school fundraising initiatives, with room to grow the community's engagement with teaching and learning at the school. The Connection has inspired Lyn to leverage the community's support to increase the community's value on learning, by involving her students with more projects in partnership with the local dairy industry.

Effective pedagogy

From the school's participation in The Connection, teachers in the Mount Burr PS cluster have improved their knowledge of inquiry-based pedagogy and curriculum design, and STEM teaching. They are more informed about how to foster and assess Critical and Creative Thinking and Personal and Social capabilities. Teachers have also improved their technological skills, and their ability to productively collaborate with colleagues both in their own schools, and across the cluster.

Developing a culture that promotes learning

Erica said that Nangwarry PS, having joined The Connection mid-way through the program, is concentrating on developing the culture and language around learning at the school, before redesigning the school's curriculum and pedagogical approaches: "There's been a shift there. Our collaboration is focussed on the teachers at the moment, that's starting the shift."

3.4 Student outcomes

Student engagement

Students at Mount Burr PS and Glencoe Central PS are now more confident and able to work together productively. Mount Burr PS reported improvements in students' Self-Efficacy, and engagement in class. Anne-Marie said that there has also been a perceptible shift in her students' attitudes to learning. She noted that when it is time for class to start, they now say "it's learning time". Her students have also participated in a future-focussed Careers Expo, where students investigated STEM-related jobs. Nangwarry PS is building their students' capacity to collaborate, finding that without preparation and guidance beforehand, their students struggled to work in this new way. The school has recently seen a positive shift in student attendance data, and Erica reports that her students are now using the language of "learning space" to describe their classroom. She said that for students, "school is no longer about 'work', it's about learning".

Student learning

Mount Burr PS reports that the proportion of students achieving in the upper bands NAPLAN Numeracy has grown between Years 5 and 7, and that more of their students are achieving at or above year level standard in STEM-related subjects. Mount Burr PS's students are also demonstrating growth in their Critical and Creative Thinking and Personal and Social capabilities. Glencoe Central PS and Nangwarry PS are following Mount Burr PS's lead by building teachers' professional capacity and developing student voice and agency. Both principals see these practices as foundations upon which they will drive future improvements in student outcomes.

3.5 Drivers of engagement

All principals in the Mount Burr cluster found Thought Leadership Gatherings to be invaluable. A leading teacher from Mount Burr PS said that "this has just opened their eyes to what else is possible". The principals noted that it was not only the quality of expertise and resources that they appreciated, but also the time to build relationships with each other, and to consider the future directions of their schools in a fresh, inspiring environment. The school appreciates the breadth of professional development opportunities provided by The Connection, particularly in contrast to other programs, which they agreed can sometimes be too narrow, or "one-size-fits all".

The SVA-brokered support from Samsung Electronics Australia has enabled their students' improvements in digital literacy, as well as the personal and social development through the technology workshops. Students from Nangwarry PS ran photographic workshops with school phones. Mount Burr PS's students have used the Samsung 360° Cameras to capture evidence of their learning.

Collaboration was a crucial aspect of the cluster schools' engagement and success with SVA. The Connection both strengthened the small schools' collaboration with each other, and also with other schools in their state. Collaboration with Prospect North, despite being a larger, urban school with a diverse student body, was an important connection for the cluster. School visits were also significant drivers of the schools' work, both as a source of inspiration for their own work, and for building sustainable relationships into the future. The leading teacher from Mount Burr PS said "what I've got the most out of are the school visits. They've been amazing. Once you've seen something you like, you've got the connection to go back afterwards".

3.6 Potential areas of growth for The Connection

Given these schools' remoteness - the funding, time and travel needed to attend Connection events affected the schools' ability to engage with the program. These conditions can sometimes limit the number of staff that can attend Connection events, which raises the issue of finding the best way to share knowledge they gain from Thought Leadership Gatherings with other staff back at school. Lyn said that:

> "The difficulty for me is that I've only ever had one teacher come with me to Thought Leadership Gatherings, so I'm getting most of the learning. We were able to share it at Mount Burr afterwards, but that might be one of the reasons we aren't getting the impact quite as much."

3.7 Key insights

Teaching and learning of STEM, with facilitative technology, can enhance student engagement and aspiration

Schools in the cluster report that their participation in The Connection's STEM Learning Hub, and the associated changes to teaching and learning of STEM and technology use across the cluster, have helped to build a school culture that is more focussed on learning and post-school opportunities in STEM. The use of STEM and technology to drive student engagement, particularly in schools where students have limited exposure to the variety of careers that STEM education can open up for them, shows promise as a way to overcome socio-educational disadvantage in remote schools.

Participating in The Connection as a cluster strengthened the schools' professional collaborative practices in their own region

Although the Mount Burr cluster principals in the focus group had known each other before they engaged in The Connection, they had never worked closely and collaboratively on teaching and learning. Allowing the school leaders and participating teachers to travel outside of their region provided an opportunity to reflect and strategise together, which has strengthened the relationships across the cluster sites. Whereas prior to joining The Connection, the schools worked more or less in siloes, the principals of Glencoe Central PS and Nangwarry PS both referred to Mount Burr PS as a model upon which they hope to develop their own teaching and learning practices, and the leading teacher from Mount Burr PS expressed enthusiasm about pursuing this collaboration.

Developing methods of distributing learnings from Thought Leadership Gatherings within the school could enhance The Connection's impact in classrooms

The principal of Glencoe Central PS valued the learnings that she and an enthusiastic teacher had gained from The Connection, however she noted the difficulty of achieving greater buy-in to the school's new work from other staff who had not been attended The Connection events. As rural cluster schools cannot afford to take several staff, continuing to work with such schools to find an effective way to share and distribute learnings and resources is critical to ensuring that the participating staff can translate their new knowledge and mindsets into whole-school improvement.

Stirling North Primary School students

CASE STUDY 4: STIRLING NORTH PRIMARY SCHOOL

Prior to joining The Connection as a Star Hub school, enrolments at Stirling North Primary School (Stirling North PS) were declining, and Principal Adam Wilson had a hunch that students were not engaged in their learning. Stirling North PS seized their participation in The Connection as an opportunity to shift the narrative around the school, by engaging students as "change agents" in their education and community. At the end of its time in The Connection, Stirling North PS's enrolments are at capacity, student achievement is higher than ever, and it has become a "school of choice" in the region.

4.1 School demographics

Stirling North PS is an outer regional primary school in South Australia, based seven kilometres from regional centre Port Augusta, and 300 kilometres north-west of Adelaide. It is the largest public primary school in the Port Augusta region, with 363 students spread over 14 classes from Reception to Year 7. Indigenous students make up 12 per cent of the school's enrolments. 10 per cent of students have a language background other than English, and three per cent of students with a non-English speaking background are non-Indigenous.

Figure 14: Stirling North PS, South Australia

The family demographics of the school are mixed. Some students come from families in which both parents are unemployed. In other families, one parent works away during the week at the mine in Roxby Downs. Adam said that to ensure that parents remain engaged in their children's education, the school actively builds relationships with its community.

4.2 Project Action Plan

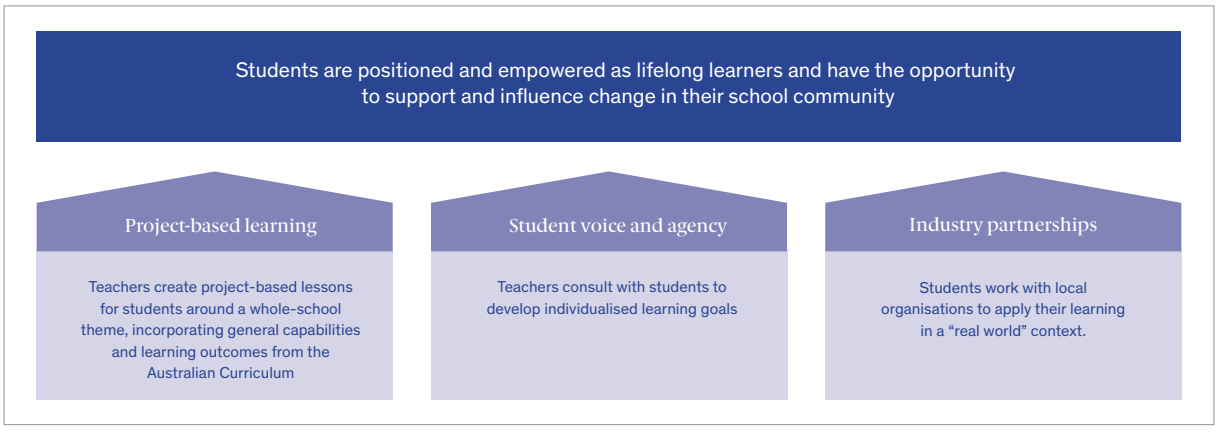
What was the purpose of the project?

When an officer from the South Australian Department for Education invited Stirling North PS to join The Connection, Adam knew that he wanted to focus on re-engaging students in the classroom. Adam is a strong proponent of Michael Fullan's strategies for harnessing student voice and agency to drive improvement in education (Fullan, 2016). The school had trialled small student agency initiatives and seen positive results. Adam saw The Connection as an opportunity to scale this impact across the entire school.

What happened?

To improve engagement, the school wanted to promote a "culture of fun" in the classroom, where students would be intrinsically motivated to learn. This work was aligned to South Australian department's Teaching for Effective Learning (TfEL) initiative, focussing in particular on Domain Two of the framework, "Safe Classrooms for Vigorous Learning". Their strategy had three central pillars: implementing project-based learning in the classroom to foster the General Capabilities, developing student voice and agency across the school, and working closely with local industries (see Figure 15 below).

Figure 15: Stirling North PS 's Project Action Plan



Source: Adapted from Stirling North PS's Project Action Plan, Project Artefact, and interview

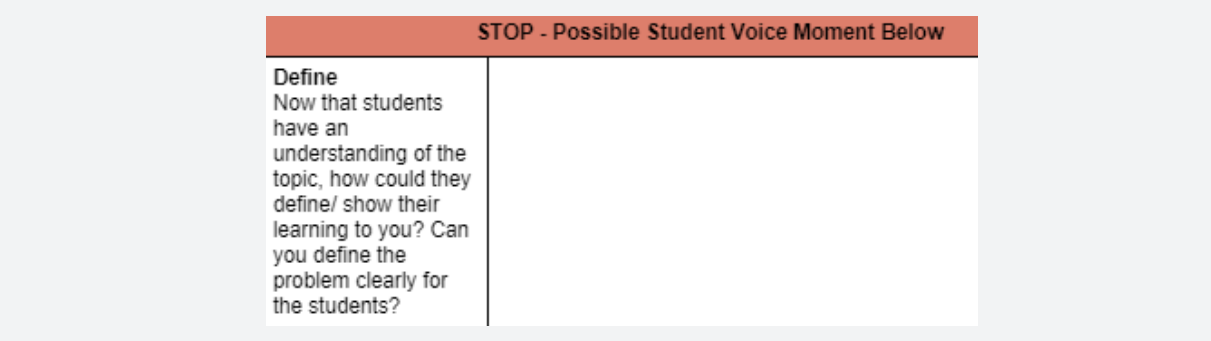
In focus: Project-based learning

Adam and his teachers developed a school-wide pedagogy of project-based learning. The school selects a theme for each term, which informs the topic of the projects.

One example was the theme "Let's Unite". Teachers fill in the school's project planning form (see excerpt in Figure 16 below). They examine the Australian Curriculum to see which Learning Areas and General Capabilities they can meaningfully incorporate to explore this theme. The project planning form emphasises the incorporation of opportunities to develop students' Critical and Creative Thinking. For example, in one term, Stirling North PS selected the school-wide theme "Let's Unite". Teachers developed a Humanities project on this theme, which was designed to teach students about text types.

The form then asks teachers to consider how the project will "engage, challenge, and support" learners. Teachers design a sequence of activities to promote the intended learning. For "Let's Unite", teachers planned excursions and brainstormed guest speakers to "unite" on Aboriginal perspectives. Adam said that this process "morphs and changes" through collaborative discussion between staff.

Figure 16: Sample of problem-based learning lesson template



	STOP - Possible Student Voice Moment Below
Define Now that students have an understanding of the topic, how could they define/ show their learning to you? Can you define the problem clearly for the students?	

Source: Artefact provided by Stirling North PS

The next stage of the project planning document reads "STOP - Possible Student Voice Moment Below" (see Figure 16 above). This section allows teachers to create an aspect of their lesson that allows students to define and demonstrate their learning, and to actively design their responses to the project problem.

While Adam said that he borrowed this approach at another school from before his time in The Connection, he said that the influence of the network on Stirling North PS's project was still considerable:

> "There's so many other Connection schools doing the same curriculum work. They were about 18 months ahead of us. It gives you confidence, seeing their results and knowing this is what I'm after. Before joining The Connection, we struggled with projects. SVA gave us a way to map out the year.
>
> We didn't know what project-based learning was meant to look like. Visiting another Connection school and seeing their work, being exposed to the Tom Lowrie paper about combining General Capabilities into the curriculum, it just made sense. It was so timely – I felt like I was in the Truman Show!"

In focus: Student voice and agency

In addition to building opportunities for student agency into the project-based learning curriculum, Stirling North PS provides teachers with 50 minutes a week to work on co-developing learning goals with their students, which Adam estimates is now implemented in roughly 90 per cent of classrooms. To develop

student agency, teachers co-design learning goals with their students. Teachers track their students' knowledge and understanding of these goals through an in-house survey. The aim at Stirling North PS is for students to spend 70 per cent of class time talking, and only 30 per cent listening to the teacher.

Reflecting on how to achieve sustained improvement, Adam wrote in Stirling North PS's Project Action Plan that "no matter what change process or review cycle or department initiative you try… if you involve students in the planning and learning process you will get a lift across the school."

In focus: Industry partnerships

Adam sees connecting with businesses as a way to further drive student engagement and inform them about local industries through project-based learning, as well as to build the school's reputation in the community. He described his approach to building partnerships as: "Any business that wants to engage in the school, we jump on. The default response is 'Yes'."

Among the school's many industry partners are several renewable energy companies. Adam says forming these partnerships was "a no-brainer", given the relevance of this industry to the region's future: "Port Augusta is planning to be the renewable energy hub of the southern hemisphere. Why not let students experience the industry and allow them to apply their learning in the real world?".

4.3 Transforming new knowledge and mindsets into school improvement practices

Sharing an explicit improvement agenda

Adam sees his role as principal of Stirling North PS as creating and communicating a strong narrative for the school to motivate staff and engage the local community. This narrative is built around the idea of providing students with an excellent "holistic" education, that both grow students' academic abilities, and develop the personal skills and attitudes that will allow them to succeed beyond school. He uses student learning data to further bolster this narrative and motivate his staff.

System Leadership

Adam is working to spread his vision to other schools in the system, advocating for holistic education in his local school network, and the South Australian Primary Principals Association. He expressed interest in leading a regional cluster of schools, in partnership with SVA, should the opportunity arise.

"It's about understanding each other" – Collaboration between teacher teams

Adam valued exposure to the Deloitte Business Chemistry tool (Deloitte, n.d.). He and his staff analysed their working styles with the tool and are now more conscious about how they work together as a team:

> "It's about understanding each other. After sharing our test results, people now know that they have be short and sharp when talking to me, and I have to be more empathetic. Schools don't always focus on the ability to work well in teams."

School leadership driving innovation in classroom practice

Adam said that the opportunity presented by SVA to improve his knowledge about holistic approaches to education, in particular around developing student agency and the General Capabilities, has reinvigorated his passion for education:

> "The future workforce that these students will enter is one that requires a broader range of capabilities. Being involved with SVA has kept me motivated."

Teachers improved their knowledge and ability to implement project-based learning, in a way that develops both students' content knowledge, and their Critical and Creative Thinking. Seeing this method in action at The Connection Powerhouse school Merrylands East Public School, improved their understanding of how to put their knowledge into action in their classrooms. Adam noted that because the General Capabilities are not assessed in the same way as the Learning Areas, teachers can find it hard to incorporate them into lessons. He estimates that at Stirling North PS, the General Capabilities are explicitly taught 30 per cent of the time.

Adam ensures that he supports teachers' professional development as they implement the school's new inquiry-based learning and student agency initiatives. He regularly observes classroom practice and provides feedback, based on agreements that he and his teachers have developed. He has found that through this supportive approach, teachers now want more feedback, and are deeply engaged in their development.

4.4 Student outcomes

Adam reported improvement in NAPLAN results in Numeracy, Reading and Writing throughout his time in The Connection, and said that the school achieved record-high results in 2019. An internal survey analysing student agency found that 74 per cent of students could articulate their learning goals, though only 44 per cent understood their goal. Further, student attendance improved by 2 per cent between 2016 and 2019, and between 2016 and 2019, instances of negative behaviour have reduced by 45 per cent, and suspensions reduced by 59 per cent.

4.5 Drivers of engagement

Adam said that his work in The Connection was driven by the content of the network's events and experiences, as well as the power of The Connection's brand. He described his experiences of Thought Leadership Gatherings as "amazing". Tom Lowrie's paper on STEM education (Lowrie et al., 2017), presented at the Canberra Thought Leadership Gathering, was a "huge" influence on Stirling North PS's project-based learning. The Connection International Exploration in Doncaster and London exposed Adam to a model of holistic, values-based education that he wanted to develop at Stirling North PS, in a school that was years of ahead in their implementation. Collaboration with other schools in The Connection supported Stirling North PS's work, and Adam has built enduring relationships with schools across South Australia. Adam sees most value in partnering with schools in South Australia, rather than interstate schools, because they operate in similar contexts: "We speak the same language".

The Connection's brand power was a significant driver of Adam's engagement in The Connection, and helped the school to build its own self-image:

> "Without SVA, the school's image would be half of what it is now. It has doubled the school's expectations of itself, and you can't build high expectations unless you know what you can achieve".

In particular, Adam found that the high-quality venues and professional delivery of The Connection events, "make everyone feel valued, and make us want to take everything on board". Adam recognised The Connection Director Sue Cridge's contribution to this aspect of The Connection:

> "Sue is instrumental. She has a great style and gets everyone on board".

Adam said that he knew the partnership would work because the school and The Connection "had a common goal". He described this common goal as working "for the whole child… developing the Capabilities and engaging with student's voice".

4.6 Potential areas of growth for The Connection

The school's remoteness requires significant travel for staff to attend Connection events. Although Adam accepts that the travel "has got to be done", he said that he would appreciate receiving detailed event itineraries at a time early enough for the school to decide whether they should attend. An example of when this would have improved the school's experience of the program was his attendance at an event in the Hunter Valley, New South Wales, which required 13 hours of travel, but which he said was essentially a "goodbye dinner" for the Powerhouse cohort. Adam said that had he known that this would be the substance of the event, he would not have invested resources to attend.

Travel requirements also influenced his perception Star Hub days, saying:

> "Star Hub Days were useful because it was a time to stop and reflect, but I also found the slow pace frustrating. It is probably a different story for people who live in Adelaide, but I have to travel for six hours to attend".

4.7 Key insights

The Connection design and delivery of events are a substantial driver of engagement

Adam called out the power of the SVA brand, the facilitation skills of The Connection team, and the smooth and professional delivery of Connection events as factors that underlie the network's success. These aspects of The Connection both encourage participants to engage deeply with the network and also build the esteem of the school.

For remote schools, it is important to pivot towards opportunities to engage with The Connection online

Adam recognises that to meaningfully collaborate with others outside his region, travel is inevitable, but that he must balance this in-person collaboration with the importance of being present on campus. Adam suggested that increasing The Connection's offerings of high-quality, low-cost online opportunities to participate in The Connection (such as webinars), early provision of detailed schedules, and ensuring that all events work towards clear, tangible outcomes, would further support his engagement.

One of the key responsibilities of a school leader is to practice systems leadership

Adam sets an example of what System Leadership looks like and its potential for future impact. Before joining The Connection, Adam was well-connected within South Australia's education system. He has tapped into the existing networks outside The Connection to spread the work of The Connection, showcasing both System Leadership mindset and practice. Furthermore, he is a passionate advocate for innovative teaching and learning approaches, including the explicit teaching and assessment of the General Capabilities, and harnessing student voice as a driver of school improvement.