Building Capability at Scale with IMPACT: MSC Stories

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**Abstract:** This paper provides a summary of key findings through presenting three Most Significant Change (MSC) Stories from the larger Project 600 research report (Watt, Ginger & Smart, 2016) and builds upon the earlier research of this project provided elsewhere (Watt, Finger, Smart & Banjer, 2014). Project 600 was initially a literacy and numeracy initiative implemented in Queensland, Australia. The authors suggest that this provides an excellent example of how a networked professional learning community can be scaled up to build capability. This scaling up has seen this networked online initiative expand to directly deliver literacy, numeracy, critical thinking, STEM, and other initiatives to approximately 45,000 students from over 600 primary and secondary schools in Queensland as at February 2016. The Project 600 networked learning community includes students, teachers, school leaders, parents and caregivers, the IMPACT Centre, and a teaching team of literacy and numeracy experts. As reported elsewhere (Watt, Finger & Smart, 2016; Watt, Finger, Smart & Banjer, 2014), there have been demonstrable improvements in NAPLAN results. Subsequent to outlining the background and the features of Project 600, providing a summary of the MSC methodology, and presenting the selected MSC stories, key findings are provided. The IMPACT Centre continues to innovate on the Project 600 model, and the latest developments and information can be found at [www.impact.edu.au](http://www.impact.edu.au).

Challenges facing many teaching with digital technologies initiatives relate to the quality and sustainability of those initiatives, and, importantly, how to scale those initiatives which are effective. Accompanying and central to those challenges are approaches which build capability of those involved in teaching and learning in the networked, online delivery of those initiatives.

This paper provides insights into Project 600, now being referred to as the IMPACT projects, which was initially an online literacy numeracy initiative. Three Most Significant Change (MSC) stories are presented and these have been drawn from a larger Project 600 research report (Watt, Ginger & Smart, 2016) and builds upon the earlier research of this project provided elsewhere (Watt, Finger, Smart & Banjer, 2014). Following a summary of the background and features of Project 600, a summary of the MSC methodology is provided. Subsequently, three selected MSC stories are presented, and the paper concludes with key findings.

Therefore, the paper makes a contribution to informing how the challenges to ensure quality and build capability at scale, as Project 600 has been delivered to approximately 21,000 students from over 500 primary and secondary schools in Queensland, Australia from 2011-2014. Project 600 has demonstrated that it is agile, scalable, innovative and successful. Importantly, it has demonstrated that teacher and school leader capability can be built through a networked professional learning community. The project deeply engages students in learning and boosts achievement, and provides a scalable model for the delivery of literacy, numeracy, STEM, language and other initiatives. It uses the power of technology and innovative pedagogy to advance education in the digital age.

**Context - Project 600**

**Background and project features**

The Project 600 concept began in 2011, and is now known as projects offered through the IMPACT Centre (Inspire, Model, Practise, Apply, Connect, and Transform). The first project was called *Project 300*, as it
involved 300 students and was delivered from March to May in 2011. A key aim was to improve the confidence and literacy and numeracy achievement of participating students. Due to its success, the initial project was scaled up and the next project was called Project 600, as it involved 600 students. Students from all seven education regions took part. Owing to the ongoing success of the concept, the ‘brand’ Project 600 took hold, even though subsequent projects have included more than 600 students. Through various online communications, the project was advertised to Regional Directors, with five education regions electing to directly fund participation for students and educators in their region. Each region targeted a specific area of need according to their improvement agenda, for example Year 5 Reading or Year 9 Numeracy.

Project 600 was primarily focused on improving literacy and numeracy outcomes for average to above average students. In most cases, the target group has been students who had previously reached the second or third top band of NAPLAN, with the aim to boost their confidence, skills and achievement so that many more of them maintained or boosted into the Upper 2 Bands in their next NAPLAN assessment. Due to this focus, some regions re-named their version of Project 600 as Project U2B (as in Project Upper 2 Bands).

The Project 600 offerings were made to regions at least two times per year, before NAPLAN or later in the year after NAPLAN in preparation for the following year. Student groups were from Year 3 to Year 9, and schools were responsible for identifying and selecting students using a combination of student achievement data and teacher judgement about suitability for the program. Approximately 12-14 students were selected by the school for each school-based group. Therefore, unlike many intervention programs, the students selected were from the “average to above average” range, not gifted or talented, nor failing literacy and numeracy. Systemic data in Queensland shows that these “average to above average” students are at risk of underachievement across their years of schooling. Project 600 provided them with an opportunity to deeply engage in learning and boost achievement.

To ensure the success of Project 600, the team at the IMPACT Centre works with education regions to:

- Recruit high performing teachers from schools within the region;
- Create an expert teaching team via initial training and induction of the recruited teachers, with an emphasis on how to design and deliver the learning program using the IMPACT Learning Framework and selected technologies, and build knowledge and understanding of the literacy or numeracy content with assistance from regional advisors or local team leaders;
- Provide ongoing coaching and mentoring to the expert teaching team including structured feedback on lesson content, design and delivery;
- Support teachers, teacher aides and school leaders to implement the project at their school;
- Engage parents in supporting their child’s participation and progress; and
- Coordinate and deliver professional learning sessions for school leaders, teachers and teacher aides.

This paper provides a selection of insights drawn from a larger research project (Watt, Finger & Smart, 2016) which was commissioned by Glen Watt, Director of the IMPACT Centre, to undertake independent qualitative research, review existing data collected from the project and to prepare this report to document and present project stories of success with a goal of disseminating these stories through conference and journal publications. South East Region, Department of Education and Training and Griffith University jointly funded that research project.

The IMPACT Learning Framework

The IMPACT Learning Framework provides a dynamic, over-arching common language for teaching and learning. The IMPACT Learning Framework is succinct and user-friendly. IMPACT stands for Inspire, Model, Practise, Apply, Connect and Transform. This framework informed the design and delivery of the learning activities across the project and within each lesson. It underpinned the success of Project 600, with both mainstream and distance education school leaders reporting that Project 600 makes an IMPACT on student and staff outcomes. These school leaders have decided that the IMPACT Learning Framework improves the quality and relevance of teaching and learning in their school. Consequently, they have adopted it as their learning pedagogical framework.

The framework is easily understandable for all key players in teaching and learning. These six elements - Inspire, Model, Practise, Apply, Connect and Transform - enable learning partnerships across a school or networked online community to be implemented by students, parents/caregivers, teachers and school leaders who use the language of IMPACT to communicate and collaborate on progress, workflow, expectations and needs in an
accessible and meaningful way. Teachers and school leaders use the six elements as a starting point and check mechanism when collaboratively designing, delivering and improving learning programs. They engage more deeply into the strategies that exist under and across the elements, further developing a common language and shared understanding. They use their professional judgement and student data to determine which elements and strategies are most suitable at a point in time. A variety of strategies are employed over time and a differentiated, personalised approach is essential. Vibrant and innovative professional learning programs have been designed through the collaboration of Glen Watt, Director of the IMPACT Centre (see http://impact.edu.au/professional-learning/Pages/default.aspx) and Lisa Newland, Principal Consultant, Sentis (see http://sentis.com/). These programs build capability, helping teachers and school leaders to discover the IMPACT Learning Framework’s links to psychology, neuroscience and purposeful use of technology.

The professional learning programs also demonstrate how the framework aligns to and builds on proven practices. The IMPACT Learning Framework syntheses existing teaching frameworks and is supported by a synthesis of research (Bloom, 1956; Bruner, 1966; Vygotsky, 1978; Gagne, 1985; Wiggins & McTighe, 1998; Marzano, 2007; Hattie, 2008). IMPACT also seeks to develop learners with a growth mindset (Dweck, 2008). As further research is conducted and validated, the framework and professional learning programs will evolve.

**Review of relevant literature**

As Project 600 was initially an online literacy and numeracy initiative, relevant literature was reviewed to identify the most common issues and debates in the literature about literacy or numeracy interventions. The purpose of this review was to ascertain whether or not the Project 600 approach was supported in the literature, and what the literature might guide the criteria used to judge the effectiveness of Project 600.

It became apparent that various terms, including tutoring, mentoring or intervention, have been used to describe similar projects. As the project goal was concerned with improving NAPLAN results, literacy or numeracy intervention literature was reviewed. For example, literacy and numeracy interventions have “broadly referred to programs, strategies or initiatives currently implemented (or which could be implemented) by schools, education sectors and systems in order to improve student outcomes in literacy and numeracy” (Meiers, Reid, McKenzie, & Mellor, 2013, p. x).

In 2013, ACER published a report titled *Literacy and Numeracy Interventions in the Early Years of Schooling: A Literature Review*. That report was commissioned by the NSW Department of Education “to conduct a literature review of the evidence regarding the efficacy and effectiveness of the range of literacy and numeracy interventions in use in the early years of schooling (Years K–3)” (Meiers et al., 2013, p. 1). Sixteen literacy intervention projects (Meiers et al., 2013, p. 15) and 22 numeracy intervention projects (Meiers et al., 2013, p. 67) in Australia were identified and reviewed. In their recommendations for strengthening the knowledge base about efficiency and effectiveness of literacy and numeracy interventions points, the following recommendations are relevant for Project 600:

- Supporting longitudinal and time series studies that follow students from school entry through their schooling so that a richer picture of their development over time, and the key factors involved, can be established;
- Producing regular updates every 3 years of the research on literacy and numeracy interventions, and the principles underpinning effective literacy and numeracy teaching in the early years, and disseminating the updates widely to teachers and schools (Meiers et al., 2013, p. xv);
- Linking students’ performance data on NAPLAN assessments in Years 3, 5, 7 and 9 with other system and school data so as to obtain greater diagnostic and analytical value from information that is already collected (Meiers et al., 2013, p. xv); and
- Strengthening the capacity of school leaders and teachers in using evidence to improve practice in literacy and numeracy (Meiers et al., 2013, p. xv).

In addition to those Australian studies, there are numerous international research studies on interventions such as reading intervention projects in Chicago Public Schools (e.g. Wanzek et al. (2013), double dose algebra intervention as a “strategy of requiring lower-skilled math students to take twice as much algebra as higher-skilled students” (Durwood, Krone, & Mazzeo, 2010, p. 1), and a mathematical intervention (Kratofil, 2013). In addition to reviewing the research on literacy and numeracy intervention, relevant research relating to online, networked learning was reviewed. There is a considerable body of research which suggests that teaching and learning online requires a new knowledge base for teachers (e.g. Mishra & Koehler, 2006; Starkey, 2010; Smart et al., 2013). Moreover, various research has identified the critical factors influencing online success (e.g. Sun et
al., 2008) and how technologies can enable schools to become networked learning communities (e.g. Lee & Finger, 2010). Key findings gleaned from that literature review and applicable for Project 600 are that:

- All published Australian literacy and numeracy intervention projects targeted students who were experiencing difficulties;
- It is an acceptable practice to test students to determine eligibility for the intervention, to determine their ‘before intervention’ score; and to determine their ‘after intervention’ score. These results along with other data (e.g. NAPLAN) can be used to judge program effectiveness;
- NAPLAN and other system and school data can provide a wider view of student progression over multiple years;
- It is desirable to develop a sense of community in the classroom with a high level trust between teachers and students;
- The limitation with the intervention programs discussed in the literature is that they tended to target students who were at or below the national average. It is important to assist these students, but there is also a need to boost the confidence, engagement and achievement of those students who need to be extended;
- Interventions should provide opportunities for teacher professional development/learning, extra resources or extra assistance from others to build capability; and
- Further research is needed to inform how capability can be built at scale.

Research design and methodology – Most significant change (MSC) stories

The research design and methodology for this paper aimed to provide insights through most significant changes evident in Project 600, the response and engagement of students, and the response and engagement by parents/carers.

Drawing upon Project 600 Data

This paper reports a selection of three MSC stories drawn from the larger research project which employed a mixed methods approach to enable both empirical and interpretive perspectives to be used together to add to the strength and usefulness of that larger research project. Data from the larger research drew upon data collected by the Project 600 Project Team for evaluation and accountability purposes. For example, for accountability purposes, data were collected to record the number of students, schools, expert online teachers, and Regions participating in these projects, as displayed in Table 1. Moreover, research and evaluation data were collected through surveys of students, school leaders and parents. Furthermore, the Year 5 NAPLAN results for numeracy were obtained and analysed, so that analyses of Project 600 data collected over the years that the project had been conducted. To complement that numerical data, messages from students, schools and parents enabled the MSC stories.

Qualitative research allowed the researchers to go into some schools to look more deeply into why the project was a success from the perspective of the principal and the teachers. It was important to capture the on-the-ground voices from the instigators (principals) and the implementers (teachers).

MSC Methodology

The MSC methodology, developed by Davies and Dart (2003; 2005), is a process involving “the collection of significant change stories emanating from the field level, and the systematic selection of the most significant of the stories by panels of designated stakeholders or staff” (Davies & Dart, 2005, p. 8). The first task completed by designated project staff and/or stakeholders involves searching for project impact stories. Once the story has been captured all the stories are then shared with a group of people who will discuss them and agree on the most significant of those stories on the basis of a series of arguments and criteria defined by the group during the discussions.

This MSC methodology was used to capture the three stories summarised in this paper. These were selected from a larger set of MSC stories due to the length limitations of this paper.

Participants

The schools, principals and teachers were purposively sampled by being nominated by the Project 600 team as potentially having an important story to share. First contact was made with principals and they were invited to participate with a list of nominated teachers from their school. The student participants in this study were 1200
students from 75 South East Region schools who had completed the Project 600 - Year 5 Numeracy from February to June, 2013. Schools that participated had nominated, and the 1200 student places were rapidly filled, with the demand for places in the project exceeding places available. The project parameters included a negotiated cap of 24 students in 2 groups per school so that all schools that nominated could participate. To select the students, the schools analysed data sources to identify students who might have the potential to reach the Upper 2 Bands (Band 7-8) in the Year 5 NAPLAN Numeracy Test with targeted support. Most of these students had achieved Band 4-5 (the second and third top bands) in the Year 3 NAPLAN Numeracy Test in 2011.

The participating Project 600 teachers were eight high performing teachers recruited from South East Region schools to deliver the program. These teachers were specially trained and mentored by members of what is now known as the IMPACT Centre. Participating schools organised one or more members of staff to coordinate and support their students’ involvement. Teachers, teacher aides and school leaders accessed professional development sessions delivered by the Project 600 Team via web conferences and they also observed and actively participated in online sessions with the students and project teachers, increasing knowledge and skills.

Ethical clearance was requested and approved by Griffith University and by Education Queensland prior to the study commencing. Both entities granted human ethics approval after the submission and review of consent forms for schools, principals, teachers and parents of students in the classes that were video recorded. To ensure confidentiality of all participants, pseudonyms for the schools and staff have been applied in this paper.

Data collection and analysis

To enable the construction of the MSC stories, the qualitative data were collected during October – December 2013, under the rigors of ethical review and approval. The Project 600 team nominated a sample of schools, principals and teachers to be interviewed. Time and access limited the possibilities of undertaking more interviews at other schools. More schools were invited to participate but declined or could not be scheduled into the data collection timeframe.

The data provided from the Project 600 team for the larger research study are shown in Table 1, while the date from interviews, which were conducted with 4 principals and 7 teachers from 5 schools, is displayed in Table 2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Year level</th>
<th>Focus</th>
<th>Student</th>
<th>Parent</th>
<th>School</th>
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<td>6, 7</td>
<td>Writing</td>
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<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td>Numeracy</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
<td>Number</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>2012</td>
<td>6</td>
<td>Reading</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>2013</td>
<td>5</td>
<td>Numeracy</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
</tbody>
</table>

Table 2: Qualitative data participants

<table>
<thead>
<tr>
<th>PERSON</th>
<th>Pseudonym</th>
<th>Role</th>
<th>School Pseudonym</th>
<th>School type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raoul</td>
<td>Principal</td>
<td>Beach</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Lacene</td>
<td>Teacher</td>
<td>Beach</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Jolee</td>
<td>Teacher</td>
<td>Beach</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Jeanice</td>
<td>Teacher</td>
<td>Beach</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Lavern</td>
<td>Teacher</td>
<td>Beach</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Jaques</td>
<td>Principal</td>
<td>Country1</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Cheval</td>
<td>Principal</td>
<td>Country2</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Garnell</td>
<td>Teacher</td>
<td>Country1&amp;2</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
<td>Solange</td>
<td>Teacher</td>
<td>Country1</td>
<td></td>
<td>Primary</td>
</tr>
<tr>
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<td>Secondary</td>
</tr>
<tr>
<td>Camile</td>
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<tr>
<td>Kamille</td>
<td>Teacher</td>
<td>Large</td>
<td></td>
<td>Primary</td>
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</table>

The first step in the data analysis was to transcribe the interviews with each of the participants. Each interview was transcribed by an international transcribing business (Revs.com). Transcripts were checked to confirm the transcription was made correctly. All interviews where formatted in Word documents and then reformatted into a layout suitable for input into NVivo (by using style headings plus identifying and separating the speakers). In NVivo, a folder was created for each data source, and then a folder for each participant was used to store data for
that participant. The first level of analysis was the individual interviews to determine significant stories consistent with the MSC methodology. Each teacher was reviewed with repeated readings being made of all the transcribed interviews to gain familiarisation with the data and enable individual stories to be written in descriptive narrative. NVivo10 Word clouds were used to identify and graphically represent a summary of the major themes. This “visualisation is as a signal or marker of individual of social interaction with the contents of an information collection, and functions more as a suggestive device than as a precise depiction of the underlying phenomenon” (Hearst & Rosner, 2008, p. 10). Each interview was coded against Nodes, determined by analysing the data and identifying common themes. Using the Export Node functionality in NVivo, the data for that node were extracted for use in Word with the references to the original source documents and a paragraph number assigned so the data could be traced back to the original source document. When a section of thirty or more words from an interview in the larger report, it is referenced according to the participant’s pseudonym, source document and the NVivo assigned paragraph number.

Trustworthiness of the study

The trustworthiness of a study is defined by Lincoln and Guba (1985) using the following elements: credibility; transferability; dependability and confirmability. Credibility was established through prolonged engagement and member checking, as the Project 600 team nominated the participants, and their relationships were well established, and the research team included the Project 600 team manager, who has been actively involved since the inception of Project 600. Transferability is important as this research can be drawn upon by others in designing online initiatives, and, in particular, to build capability at scale. Dependability has been enhanced through the stability of the data collection over time, and has been organised and retained to contribute to an audit trail and chain of evidence. Confirmability has been achieved by describing in detail throughout the actual sequence of the research process with details outlined in this report. Triangulations of data have enabled multiple representations of the data to provide alternative views of the MSC stories.

The quantitative data were collected by the Project 600 team and, therefore, was not governed by ethical review and approvals. However, NAPLAN data presented by the Project 600 team has been analysed and verified by the Executive Director of Performance, Monitoring and Reporting Branch within Queensland’s Department of Education and Training.

Findings – A selection of MSC stories

The following provide a selection and brief accounts of three MSC stories drawn from the larger research project investigating Project 600.

MSC Story 1: IMPACT Learning Framework

Data source: Interviews of 5 teachers from three school types – Beach, Large, Country

What happened?

The IMPACT Learning Framework is a contemporary teaching and learning or pedagogical framework. It was devised in 2009 by Glen Watt and it informs the design and delivery of Project 600 learning activities. Traditionally, pedagogical frameworks are unique to a school. Via Project 600, IMPACT has been disseminated to many of the schools involved in the project. Sharing something as important as a pedagogical framework is a new approach to schooling and Project 600 has enabled participating teachers to see how the IMPACT Learning Framework can transform learning. This is not a shiny showcase of selling a pedagogical framework. This is a case of teachers and school leaders seeing IMPACT in action and deciding that they should use it to improve the quality and relevance of teaching and learning in their school.

Examples of teacher comments included:

I think one of the biggest things, in terms of my pedagogy, I’d have to say the IMPACT model has just taught me a great deal about it. There are definitely parts of IMPACT that I feel I was already doing, and doing fairly well I guess, but there were definitely a couple that I put a lot more value on now, that I hadn’t really valued prior to this because we do work so systematically through the model. I just feel I’ve learned a lot about my teaching in those respects. (Jolee, Interview 5/12/2013, paragraph 38)
If I could have done anything, it would have been that I could be going, "Okay. Our school should use this pedagogy all the time so that the kids know what's going on." (Lacene, Interview 5/12/2013, paragraph 34).

Why do you think this is a significant change?

Significant changes gleaned from the data analysis included:

- Being able to see how a pedagogical framework is used online and then being able to apply it at your own mainstream or distance education primary or high school;
- Hearing from teachers that the IMPACT Learning Framework is being used in their school; and
- Seeing posters on the wall and other visible signs that showed that the IMPACT Learning Framework was being used in the schools where the interview was undertaken.

MSC Story 2: Using a network learning community in an online delivery model

Data source: Student survey results and teacher interviews

What happened?

Project 600 has allowed the development of a networked learning community through an online delivery model to more than 500 schools across Queensland. The project has allowed teachers and students to experience the use of those networked learning communities through, for example, virtual classrooms and web conferencing that they may not have been exposed to in their school. Students have shown by their responses in the surveys that they have developed computing, thinking, learning skills, and other skills. To illustrate, this is reflected in the data from the 2012 Year 4 Numeracy Survey responses (Figure 1) and their open ended responses.

![Figure 1: 2012 Year 4 Numeracy student responses to question 4](image)

Teacher responses also confirmed that students were engaged, were developing initiative in solving technology issues, and being self-directed, with a teacher commenting that:

> When you're leaving your supervision for your next teacher, normally I would pick it up and go, "The kids are on a computer." They would normally be hesitant. It's just nice to come back and see, 'Michael's agreed to get the headsets', because we're all working out who's going to be responsible for it. I literally write on my supervision, "This is what they need to do." Don't stress. The kids know, the kids have it under control. It's nice to have each time, the teachers who have taken them write, "You're right. This class is a beautiful class, all well-behaved." That was a whole classroom story. They just are really keen to get in there, get going and try their best. (Camile, Interview, paragraph 75)

Why do you think this is a significant change?

The themes evident throughout the student and teacher responses related strongly to the following significant changes:
• Improved computing and technology skills, with many of the responses highlighted that the students were not the ‘digital natives’ that is often assumed of their generation;
• Immersion in an online learning environment, with many of the students outlining that this was their first exposure to an online teaching delivery model; and
• Feedback from the students and their teachers suggested that the students enjoyed the experience and developed solutions to issues that emerged when they were learning online.

MSC Story 3: Taking online learning to participating schools

Data source: Teachers interviews and surveys, Principals interviews

What happened?
For a school to run Project 600, they need to appoint a School Supervisor who was responsible for ensuring the successful delivery of the project. The School Supervisor can be a teacher, school leader or teacher aide. Their role needs to be to:

• Prepare the students and the technology before the first web conference;
• Log into the web conference each week to support students and the online teacher;
• Check that the students can access and navigate the way around the virtual classroom tasks;
• Arrange for a backup supervisor that could step in if they were unable to attend the web conference that day;
• Arrange a Project 600 club at least once per week before school or at lunchtime so that students have the option to complete their virtual classroom tasks at school;
• Maintain regular contact with the online teacher to build an effective working relationship and open lines of communication; and
• Undertake professional development and promote the project’s benefits to other staff in the school.

For many schools, this may have been the first time that the staff member was exposed to online learning. The supervisor needs to be aware of and know how to use the technologies to be able to help their students. Teachers, school leaders and teacher aides used Project 600 as a professional development opportunity, and supervisors were asked to encourage teachers to adopt the online delivery into their teaching practices. For example, a Principal outlined the positive flow on effect to other teachers in the school:

Yeah, I had some exposure to Virtual Classrooms prior to that, but I'd only used in a very minimalistic way. It's only come to the fore since Project 600 and since we've had good expertise that can use it since Greg has helped us out here. Which, of course, has gone throughout the school since because Greg has used it effectively. I've now got other teachers that are using it as well, but certainly not back at that time. It was ... We found it difficult to get around. (Cheval, Interview, paragraph 36)

Teachers, in talking about their approach, expressed a range of contexts in terms of technology support and infrastructure, with some indicating that technology was part of their everyday practice, with wireless capabilities and well resourced, while others indicated that they had learned to troubleshoot more confidently when technology issues occurred.

Why do you think this is a significant change?
This MSC story highlighted the following significant changes:

• The success of getting the program up and running within the schools;
• The flow-on effects which the project offered to schools through professional development opportunities and the change in teaching practices; and
• Staff being to solve the technology problems in the classroom to enable all students to participate.

Conclusion - Summary of key findings
This paper has provided evidence through three MSC stories from a larger research project of Project 600, which demonstrated through achievement data, positive student, parent, school and teacher feedback that this project capitalises upon online, networked design possibilities. Project 600 has been shown to be both innovative and successful, and this success can be built upon to continue to build capabilities at scale.
Importantly, this project is agile, scalable and enables agency by schools and regions in Queensland to engage in high priority areas of study, such as improving NAPLAN literacy and numeracy. There is the potential for project design to include students with lower achievement levels to participate in a longer project timeframe to enable success. Furthermore, there is the potential for the target group of students to be focused on other learning areas, as Project 600 has demonstrated that connecting like-minded students across the state in a networked learning community can be hugely successful. The exploration of this potential has been implemented in 2015 and is being implemented in 2016 through the Impact Projects (see http://impact.edu.au/projects/Pages/default.aspx). Examples include the Booster Series which target a similar group to Project 600 in Reading, Writing and Numeracy (Years 4-9), the UNIFY Series which extend/enrich mid-to-high performing students in Critical Thinking, Philosophical Thinking, Legal Thinking, Debating, Creative Writing, and a range of STEM options; e.g. Design Technologies and Scientific Inquiry (Years 4-10).

In summary, the key findings of the research are that Project 600:

1. Engages students, parents, teachers and school leaders directly, rather than the approach of literacy and numeracy interventions delivered to teachers and school leaders only through professional development;
2. Engages students in learning and boosts confidence, with the majority of participating students reporting that they loved the project and believed that it had helped them improve their literacy or numeracy skills;
3. Offers an innovative, scalable and proven model for focused literacy and numeracy interventions;
4. Can be adapted as a model for improving the achievement of other target groups and other priority areas;
5. Has reinvigorated teachers from mainstream schools who have been recruited as quality practitioners, been coached and mentored by IMPACT Centre staff, and returned to their base school post-project with new skills and abilities to share with their students and colleagues;
6. Has enabled the IMPACT Learning Framework to be shared and adopted by both distance education and mainstream primary and secondary schools. IMPACT aligns with and builds on research-based practices, advances teaching and learning for the digital age and creates a common language;
7. Has inspired teachers, school leaders and teacher aides to engage in purposeful professional learning in relation to the teaching of reading, writing and numeracy, plus the use of technologies including state school systems-based platforms (eLearn – BlackBoard and iConnect - BlackBoard Collaborate);
8. Has impressed parents who have supported their child’s learning from home via the virtual classroom, and built a relationship with the online teacher.

References


