

A group of children are gathered around a tablet computer, looking at the screen. The children are wearing colorful clothing, including a red shirt and a blue patterned shirt. The tablet is held by one of the children, and the screen displays a colorful interface with various icons and text. The background is dark, and the overall scene suggests a collaborative learning environment.

RESEARCH REPORT
SUMMARY

**Disrupting the
boundaries of
teaching and learning:
How digital devices
became a resource for
transformative change
in a time of crisis**



TE TOI TUPU LEADING LEARNING NETWORK

Digi-Advisors



Disrupting the boundaries of teaching and learning: How digital devices became a resource for transformative change in a time of crisis

The Pegasus Digital Devices Project 2013

Two page summary

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The *Pegasus Digital Devices Project* saw the integration of 600 digital devices into 11 primary schools from the eastern Pegasus Bay region of Christchurch – an area devastated by earthquakes. The initiative was a result of a plea from the community that students would not be disadvantaged because of what they had experienced. In response to this plea the *Greater Christchurch Schools Network (GCSN)*, with funds from the Christchurch Earthquake Appeal Trust (CEAT), and the Ministry of Education, provided digital devices, covers and software for all 11 schools at a ratio of one device for every four students. The GCSN also ensured all these schools had wireless networks functioning before the project got under way and funded professional learning (PL) for schools throughout the entire project.

Professional learning support was provided for schools participating in the project, through the Te Toi Tupu Digi Advisor programme, managed by CORE Education. The project ran from February – November 2013 with data being collected concurrently with the PL on offer. Data was used to examine the impact of the project on student learning, and a community recovering from a crisis. The stories of those involved were viewed through a transformative lens aimed at supporting equity and 21st Century learning (Bolstad, Gilbert, McDowall, Bull, Boyd and Hipkins, 2012). The project was exciting for those involved, bringing hope and respite from the effects of the earthquakes. The initial set-up was a huge undertaking, but once this was completed teachers and students began to learn *together differently*, which resulted in many shifts in teacher pedagogy and student learning. The positive changes that occurred were possible because teachers were willing to think and act in new ways.

Because the community of Pegasus had experienced ‘great environmental change’ (Bolstad et al., 2012, p. 26), many of the traditional boundaries defining community, school, teaching and learning had already been disrupted which provided a context for teachers to think and practice differently; the introduction and use of digital devices compounded this change process. Transformation in teaching and learning began as teachers determined not to *go back* but instead find new ways to work with students. One such shift was a move away from the traditional binary of teacher/learner to a more cooperative and interdependent learning relationship. Students were no longer dependent on teachers for direction as, in some instances, they knew more than their teachers about how to use the devices. Teachers and students learnt alongside each other, finding new ways to access, create and share knowledge together.

As the roles of teacher and learner merged some teachers reported *seeing* their students differently, noticing what students were capable of and cared about in ways they had not previously done. Noticing differently then altered how teachers responded to students which saw a change in work habits and output. Digital devices offered multiple learning pathways to achieve learning goals and so students were no longer restricted from achieving because of learning difficulties or because they preferred to learn in non-traditional ways. Students were no longer bound by their ability or limitations. For instance, one very artistic child who was restricted by their ability to draw, was able to use the device to create something with their conceptual ideas. For this child there was ‘a real sense of accomplishment when their visualisation became a reality before their eyes’ (T2). There were other instances where students who had difficulty writing with a pencil used the devices to get their thoughts down which had made a huge difference to their confidence and work.

The devices enabled students to edit and share their work more easily and as a result there was an improvement in both the quantity and quality of work produced. Furthermore, there was a reported difference in self assessment, peer assessment and cooperative learning, with students readily making suggestions to each other about how work could be improved. Students commented about how easy it was to correct their work and the provisionality (Simpson, 2012) of open ended applications (apps) meant more risk taking, experimentation and creativity in the work produced. More value was placed on play as a valid way to learn, which encouraged negotiation, problem solving and cooperation. The bell no longer signalled the end of learning and the beginning of play because when learning was fun students ceased to notice the separation between the two. This project was a reminder that learning through play and fun continues to be effective – no matter what the age (Thomas and Seely Brown, 2011).

This more playful and experimental learning had an impact on student engagement with many teachers repeatedly mentioning this. While the new enthusiasm for learning could be attributed initially to the novelty of the devices themselves, after a settling in period there was notable change in the work of previously disengaged and reluctant learners, particularly in writing. The devices broke old habits as students re-entered learning with new enthusiasm and used these to explore contexts that were important and relevant to them. This kept up interest, and supported meaningful learning which helped to ensure school was a more positive experience for previously disengaged students – a key prerequisite for achieving success at school (Finn and Kasza, 2009).

With new found enthusiasm and appreciation for the gift of so many devices, students wrote about their experiences and produced media presentations that were used in a Digi Awards event; an event which attracted 500 people from the community. Students shared with passion the issues that were relevant to them, including the earthquakes, highlighting the importance of context in learning and just how much students are affected by their lived experiences. Being able to integrate experiences into learning helped to build a sense of purpose to learning. The devices helped students to process their experiences and make meaning of these in numerous ways – and they had fun at the same time.

Education communities that connect with social needs, build a more democratic and equitable society (Bolstad et al., 2012; Facer 2011). When learning became connected to the real life experiences of students, they had a commitment that went beyond themselves. Through their school work and their contributions, students demonstrated care for their fellow students, their community and beyond. The *Pegasus Digital Devices Project* not only created new pathways for learning but also new ways to demonstrate care and concern for others. The community came together for a common good, and as they did they helped to rebuild their lives.

References

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