

# 1

## Introduction

The Ministry of Education identifies “supporting schools to make the most of new technologies” as a significant part of its work programme.<sup>1</sup> Over the past two decades there has been a significant and concerted effort to strengthen learning with digital technologies in New Zealand schools, through better provision of technology infrastructure, various programmes of professional learning and development, resources, and advisory services.

Given the high priority the Government has on learning with digital technology, there are many questions worth exploring. For example, what educational goals and purposes guide the integration of digital technologies in schools? How are primary students and their teachers actually using these technologies? Are students and teachers more “connected”, as digital technologies promise? If so, how does this benefit learning? Do teachers feel well-prepared and well-supported to make effective use of digital technologies in their teaching and professional work? What resources are they using to support their practice? What barriers or challenges get in the way of teachers or students making the most of new technologies, and how are schools dealing with these challenges?

In this chapter I discuss some of the significant developments in the landscape of learning with digital technologies in New Zealand schools before outlining what sorts of questions we asked in the 2016 national survey.

### The landscape for learning with digital technologies in New Zealand schools

Just as the technologies have evolved and diversified over time, so too has the language used to talk about their role in schools. In the late 1990s and early 2000s the language was about information and communication technologies (ICTs), and there was a variety of initiatives designed to get more hardware (such as laptops) into the hands of teachers and students, and to examine how these might be used in different ways to enhance learning and teaching. In the 2000s the focus turned more towards the language of learning, often described as e-learning or learning with digital technologies (LwDT). In recent years, the policy language around digital technologies in schools has turned towards the notion of “digital

---

<sup>1</sup> See <http://www.education.govt.nz/ministry-of-education/specific-initiatives/digital-technologies-for-teaching-and-learning/>

fluency”, the meaning of which still seems open to interpretation,<sup>2</sup> but which at minimum connotes something that goes beyond simple “digital literacy”.

The Government’s current digital strategy, “Towards digital fluency”, has several goals for schools:

- state-of-the-art infrastructure (including reliable high-speed broadband and fully-funded uncapped data)
- 21st century teaching and learning
- equitable access to quality content and resources.<sup>3</sup>

In 2012 the Ministry of Education created Network for Learning (N4L), a company set up to build a managed network and to provide ultra-fast broadband to schools. Additional Ministry-funded support to help achieve these goals includes the Connected Learning Advisory—Te Ara Whītiki (CLA) which provides free advice to schools on how to incorporate digital technology into teaching and learning, and the Virtual Learning Network (VLN), which supports teachers to connect and collaborate with colleagues online, and enables schools to connect with one another to share resources (e.g. students from a number of schools can share a teacher for a subject that the individual schools are unable to resource).

Numerous international studies<sup>4</sup> have underscored the importance of matching the investment in hardware and infrastructure with similar investments in teacher professional learning and development (PLD). The Information and Communication Technologies Professional Development (ICTPD) School Clusters Programme was part of New Zealand’s teacher PLD landscape for a decade from 1999. The programme aimed to increase teachers’ pedagogical understandings of ICTs in order to support effective classroom teaching and improve student achievement. More recently, Ministry of Education-funded providers such as Te Toi Tupu offered PLD to support learning with digital technologies. The Ministry-funded website, Te Kete Ipurangi (TKI) has been developed as a “go to” place for e-learning resources, networks, and PLD information, which includes the Virtual Professional Learning and Development programme. From 2017, digital fluency has been included in a small number of national priority areas for centrally-funded PLD. Each term, schools, kura, and Communities of Learning (COL) can apply for funding for PLD in the priority areas, with proposals assessed by regional allocation panels composed of sector representatives and Ministry representatives.<sup>5</sup>

In July 2016, shortly before we undertook this national survey, the Minister of Education announced that digital technology will be more formally integrated into *The New Zealand Curriculum* and *Te Marautanga o Aotearoa* by 2018. At the time this report was written, work was underway to develop new curriculum content relating to digital technologies in the Technology Learning Area of *The New Zealand Curriculum* and the *Hangarau Wāhanga Ako* in *Te Marautanga o Aotearoa*.

## The 2016 NZCER national survey

The landscape for learning with digital technologies in New Zealand schools is a fast moving terrain. Developing survey questions and response options that can capture a rich and relevant picture of current practice can be challenging.

---

2 See <http://elearning.tki.org.nz/Teaching/Digital-fluency>, also <http://blog.core-ed.org/blog/2015/10/what-is-digital-fluency.html>

3 See <http://www.education.govt.nz/assets/Uploads/Towards-Digital-Fluency.pdf>

4 See, for example: International Association for the Evaluation of Educational Achievement. (2015). *International computer and information literacy study: Preparing for life in a digital age*. Downloaded 10 August 2015, from [http://www.iea.nl/icils\\_2013.html](http://www.iea.nl/icils_2013.html). Also: Organization for Economic Co-operation and Development. (2015). *Teaching in focus 12: Teaching with technology*. Downloaded 10 August 2015, from [http://www.oecd-ilibrary.org/education/teaching-with-technology\\_5jrxnhpp6p8v-en](http://www.oecd-ilibrary.org/education/teaching-with-technology_5jrxnhpp6p8v-en)

5 For further details, see <http://services.education.govt.nz/pld>

In the 2016 national survey we asked teachers and principals how students were using digital technology in the classroom and how this was benefiting their learning. We asked teachers and principals about their school's digital infrastructure, and the degree of support they had to help them make good use of this for teaching and learning. We inquired about the role of digital technology in supporting teachers' own professional learning and networking. We asked parents and whānau about the importance they placed on their children having opportunities for learning with digital technology. Some of our questions have been asked in previous national surveys, enabling some insight into trends and changes in this area over time. Other questions were new questions that have not been asked in previous national surveys. This report weaves together findings from teacher, principal, and parent/whānau survey responses to generate a picture of the role of digital technologies in New Zealand primary and intermediate schools.

### Methodology

The survey was conducted from August to early September 2016 and was sent to a representative sample of 349 English-medium state and state-integrated primary and intermediate schools (20% of all these schools in New Zealand).<sup>6</sup> At these schools, surveys were sent to the principal and to a random sample of one in two teachers. Surveys also went to the board of trustees' chair, who was asked to give a second trustee survey to someone likely to have a different viewpoint from their own. Additionally, surveys were sent to a random sample of one in four parents at a cross-section of 36 schools. The response rates were 57% for principals ( $n = 200$ ), 38% for teachers ( $n = 771$ ), 25% for trustees ( $n = 176$ ), and 32% for parents and whānau ( $n = 504$ ).

The survey returns for principals, teachers, and trustees were generally representative of schools in the sample, with the following small variations:

- Principal returns showed a slight over-representation of large schools, and urban schools. Decile 8–10 schools were somewhat over-represented, as were schools in the Auckland region.
- In the schools from which teachers returned surveys, there was a slight under-representation of large schools, and an over-representation of small–medium and small schools. Slight under-representations were evident of decile 1 schools and schools in the Auckland and Hawke's Bay/Gisborne Ministry of Education regions.
- The schools from which we received trustee surveys reflected some over-representation of large schools and under-representation of decile 1 schools.

The maximum margin of error<sup>7</sup> for the principal survey is 6.9%, for the teacher survey around 3.5%, and for the trustee survey around 7.4%. Sometimes we report results for smaller groups of respondents within each survey; the maximum margin of error reported for each survey does not apply to these groups. Calculating the margin of error relies on random sampling and because we rely on schools to select the teachers and trustees to complete surveys, we cannot guarantee that these samples are random. Therefore, the margins of error for the teacher and trustee surveys should be regarded as approximations. The parent and whānau sample is not a random sample, therefore we do not calculate a margin of error for that survey.

---

<sup>6</sup> Further details about the sample can be found in Berg, M. (2017). *NZCER national survey of primary and intermediate schools 2016: Methodology and sample information*, available at: <http://www.nzcer.org.nz/research/national-survey>

<sup>7</sup> The maximum margin of error added to and subtracted from a proportion gives a confidence interval. We can say there is a 95% chance that the proportion is inside this range of numbers.