

Chapter 2

Presenting the Research

Good qualitative purpose statements contain information about the central phenomenon explored in the study, the participants in the study, and the research site. [They] also convey an emerging design and [use]...the language of qualitative inquiry... (Schwandt, 2007, cited in Creswell 2014, p. 124)

Introduction

My intention in writing this book is not simply to describe teaching and learning in the second decade of the 21st century. The two studies on which it is based, ‘21st-Century Learning’ and ‘Being a Teacher in the 21st Century’, provided an opportunity to gain deeper insight to the rich tapestry forming the backdrop to teachers’ work as it has been evolving in this, the second decade of the 21st century.

Around 2011, I began to pay attention to the strident and zealous clamour around the concept of ‘21st-century learning’. I was somewhat sceptical (mainly because missionary zeal tends to cloud and conflate multiple concepts and sweeps up adherents in an uncritical maelstrom). I began drilling into this concept philosophically, presenting a conference paper in 2011 that was eventually published in 2015 (Benade 2015a). The links between 21st-century learning and *The New Zealand Curriculum* (Ministry of Education 2007) can be seen in its general vision for schooling of “young people...who will seize the opportunities offered by new knowledge and technologies to secure a sustainable social, cultural, economic, and environmental future for our country...[and]... who will be confident, connected, actively involved, and lifelong learners.” (p. 8). Further, one of the values to be encouraged in New Zealand schooling is “innovation, inquiry, and curiosity, [encouraged] by thinking critically, creatively, and reflectively” (p. 10). Among the ‘key competencies’ are included ‘thinking’, ‘understanding language, symbols and texts’ and ‘managing self’. Within these, the following stand out: students will be “problem-solvers [who] actively seek, use and create knowledge”; who will “confidently use ICT...to access and provide information and to communicate with others”; and who will be “enterprising, resourceful, reliable, and resilient...[able to]... establish personal goals, make plans, [and] manage

projects” (p. 12). A striking feature of this curriculum document is its limited reference to teachers and teaching, though there is reference to ‘teaching as inquiry’, which “requires that teachers inquire into the impact of their teaching on their students.” (p. 35). In support of this aim, a three-step model is provided, and serves as a tool of reflective practice.

Furthering a personal interest in, and a critical focus on, teachers and teachers’ work, with financial support from the Faculty of Culture and Society of the Auckland University of Technology, I framed a study in 2013, guided by this question: **What is the influence of the concept of ‘21st-century learning’ on reflective practice, pedagogy and leadership in a selection of New Zealand schools?** My funding proposal drew attention to the features of the concept of ‘21st-century learning’ in New Zealand schools including the use of digital technologies and the emerging development of flexible teaching and learning spaces. There was some evidence in research literature for a claim that new pedagogies are required to support the widening and deepening use of technologies, which, in turn, would require teachers to take up an increasingly critical (self-reflective) orientation (Wright 2010). There was an associated likelihood of students becoming more motivated, engaged and able to engage in critical and collaborative learning (2010). The intention of the project at this stage (2013/4) was to critically appraise the claim that the introduction of digital tools and working in flexible spaces brings about changed pedagogy, and, in particular, critical practitioner reflection. To achieve this purpose, the lived professional experiences of teachers and school leaders in a small number of case study schools were considered (see Benade et al. 2014; Benade 2015b, c). Data was gathered in the field by interviewing 23 participants selected from six schools. In addition, a focus group was held, consisting of a further four participants not associated with the six participant schools.

In 2015, the study focus developed, with this guiding question: **What is it to be a teacher in the twenty-first century?** This study (with further university financial support) continued to focus on the work of teachers and the strategic actions of leaders at a selection of New Zealand schools. As in the earlier study, this was a qualitative study. It sought to explore, interpret and develop greater understanding of modern teaching and learning practices, and the transitions teachers and school leaders make as they grapple with the challenge of 21st-century learning, the development of flexible learning spaces and the rapidly changing nature of knowledge and learning in a digital age. Teachers and leaders were selected from among the participant schools to the earlier study. Data was gathered through interviews, focus groups and observations of teachers working in flexible spaces and/or implementing BYOD (Bring Your Own Device) and/or e-Learning. The intent was to continue to encourage these participants to explore and reflect on their lived professional experiences in the context of 21st-century learning, but now with the focus being on their evolving understanding and experience of leading and managing their transition to modern teaching and learning practices. It was also important to understand the challenges and obstacles they were encountering in this transition process, and how they were sustaining fundamental pedagogical change.

Design and Participants

The ‘21st-century Learning’ study was designed as a multiple case study, due to the likelihood (as will be seen shortly) of what Yin (2003) had identified as complex and highly contextualised research settings, with multiple uncontrollable variables. Of particular interest was the view of Ary et al. (2006), who saw in case study designs the opportunity to understand how and why individuals respond to changes in their environment. Stake (2006) advised against single researchers working on multiple case studies, given their complexity. In this study, I enlisted the support of a colleague (Andrew Gibbons), who helped with interviews and data analysis, and subsequently contracted the support of two others (Michele Gardener and Christoph Teschers) who undertook literature review work.

A purposive selection (choice of specific participants who display specific characteristics) was made to ensure there were six participating schools that represented a range of deciles¹ (SES) and sectors (primary and secondary). Additionally, school orientation was taken into account: the schools were either:

- (a) overtly future-oriented²;
- (b) shifting from traditional cellular spaces and pedagogies to flexible spaces and pedagogies influenced by e-Learning and future-focused concepts, or
- (c) retaining the use of traditional spaces and more conventional pedagogies (which could range from teacher-centred to learner-centred).

The selected mix of schools in orientation, deciles and sectors was segmented as follows:

- (a) was represented by two high-decile (affluent neighbourhoods) state schools, one of which was a primary (elementary) school, one of which a secondary (high) school;
- (b) was represented by two schools, one mid-high decile state-integrated primary,³ one low-decile state primary; and
- (c) was represented by two schools, one mid-low-decile state primary and one mid-decile state secondary school.

¹The ‘decile’ rating system has been used in New Zealand as a way of allocating funding equitably. Based on a number of measures, schools are rated ‘low’ in areas of greatest socio-economic deprivation; ‘high’ in affluent areas. Per capita funding is greatest to low-decile schools. The system is being reviewed at the present time, and is slated for imminent replacement.

²While the New Zealand Curriculum refers to ‘future focussed’ concepts such as sustainability, citizenship, enterprise and globalisation (2007, p. 39), the term used here indicates a school established with clear focus on the principles of 21st-century learning in an innovative context.

³New Zealand schools that were previously private (notably, but not solely, Catholic schools), which are integrated into the state system, thus attracting state support (particularly teachers’ pay, but also decile funding). These schools continue to have the right to advance their ‘special character’.

Table 2.1 Participant schools by sector and classification: 21st-century learning study

School	Sector	Classification
School A1	Primary	‘Futures oriented’, built by modern learning environment (MLE) design
School A2	Primary	Blends single-cell classes and MLE
School A3	Primary	Single-cell classes; limited ICT use across curriculum
School B1	Secondary	‘Futures oriented’, built by modern learning environment (MLE) design
School B2	Secondary	Overt BYOD approach across curriculum
School B3	Secondary	Single-cell classes; limited ICT use across curriculum

Table 2.1 below captures this information in a different format.

The design allowed for the ‘School 2’ case to be either a school upgrading single-cell rooms to flexible learning spaces, or be a school that had recently introduced BYOD. This was so in case B2. In either kind of school, significant pedagogical shifts by teachers would be required.

Individual participants were also purposively selected, specifically the principal of each school, the head of ICT or e-Learning, one long-serving teacher and one recently appointed teacher (1–2 years of service) from each school. The reasoning here related to questions of strategic leadership and management of change; the demands of ICT and/or e-Learning on staff; and gaining the perspectives of teachers from opposite ends of the experience continuum.

Data was gathered from one-hour interviews, conducted with the participants. Although the original design allowed for focus groups to be formed from 12 invited participants made up of two teachers from each of the six schools, this did not materialise. On reflection, Stake (2006) was correct in suggesting that a multiple case study is not practicable for one person. Nevertheless, somewhat serendipitously, a group of individuals not linked to the six schools, but with an interest in the project, agreed to participate in a focus group. A further participant agreed to an individual interview (see Table 2.2).

The interviews and the focus group were audio-recorded and transcribed by a contracted transcriber. Themes emerged in the process of interviewing and as transcripts were analysed. The first stage of this analysis utilised NVivo software. At this stage, I did not seriously make use of field notes, and was not yet keeping any kind of journal.

The ‘Being a Teacher in the 21st Century’ study reflects a methodological shift from focussing on finding patterns and differences among a number of participant schools to evaluating and understanding how individual participants across the schools find themselves in relationship with 21st-century learning. This evaluation takes into account 21st-century learning as an exemplar of macro-level, global governance (specifically the OECD), and as a national education policy commitment at the meso or national level. In the New Zealand context, this means considering the commitment of the New Zealand Ministry of Education to introduce flexible learning spaces (or, Innovative Learning Environments [ILE]) to all New

Table 2.2 Individual participants not linked to case study schools: 21st-century learning study

Role	Comments
Ex-principal	Was a recent leader of a futures oriented secondary school
Consultant to schools	Engages with schools on e-Learning
Consultant to schools	Engages with schools on e-Learning
Principal	Leads a traditional low-decile regional primary school

Zealand schools by 2021 (MOE 2011). In addition, and in line with the promotion of ICT in The New Zealand Curriculum, is the stated intent that schools adopt digital technology and teachers acquire e-Learning expertise. An evaluative focus at the micro-level of the classroom and school allows for description and judgement of actual practices, including making some judgments about school policy intent as expressed in documentary evidence and the voices of participants. This evaluation of practice was therefore considered through the lenses of pedagogical principles that can be considered essential to the development of ‘21st century skills’, such as: personalisation, interdisciplinary and project-based inquiry, student direction or agency and collaborative practices (Nair 2011; Pearlman 2010).

The participant schools to the ‘Being a Teacher’ study were Schools A1, A2, B1 and B2 (see Table 2.1), as these are schools committed to engaging the policy impetus that schools develop modern, technologically rich, pedagogies.⁴ My focus, influenced by my reading of Vagle (2014), was not to describe or explain teacher (and school) practices as much as to establish the intentional relationships of the participants towards each other, their schools, to the policy imperatives, to digital technology, to flexible learning spaces and even to me, the researcher. How do they find themselves where they are, and how do they make sense of what they *are* or are *becoming*? I wanted to examine how these participants respond to, and make sense of, the commitment to 21st-century learning, to the process of transition from more conventional and traditional approaches to teaching and learning, and to the suggestion they re-fashion themselves as teachers for the 21st century.

As in the earlier phase of study, School B2 was again approached as it was in the early phase of BYOD implementation. It was likely that its teachers were living through the experience of implementing a significant new strategy, which, as suggested above, would be placing demands on their pedagogy and sense of professional identity.

Teachers at all four schools were approached, with the support of the principals, to participate in the research, which in this second phase, involved several observations across the second term of 2015. In addition, teachers were asked to commit to informal debriefing discussions. The teachers at all four schools were invited to a focus group at each school as well. These were run at the conclusion of the observation phase. The principals also agreed to be interviewed.

⁴My use of ‘pedagogy’ refers to teachers *thinking* about their work and their actual *classroom-related work*.

Data was gathered from 31 observations across the four school sites, ranging from 45–100 min each. In addition, 16 debriefing interviews, of 5 min–1 h were conducted with a range of teachers. In later chapters, these are denoted as ‘DB’. All four principals were interviewed, and these are denoted as ‘IV’ in later chapters. Where data is used from the 2013 interviews, these are denoted as ‘IV 2013’. Four staff focus groups (one at each school) of an hour were held, and these are denoted as ‘FG’. In the case of School B2, I ran focus group sessions of between 45 min and an hour with a group of Year 9 and Year 10 students, and one with a selection of parents. Although not originally planned, a student survey was run at School B2. Once again, the overall task was considerable, and I thus once more invited my colleague, Andrew Gibbons, to assist at one of the school sites with observations, a principal interview and the staff focus group. Some literature review work was contracted to one of my Ph.D. students, Alastair Wells, and I contracted a transcriber. Table 2.3 below summarises this data gathering.

The interviews, informal debriefing discussions and the focus groups were audio-recorded and transcribed by a contracted transcriber. Again, I used NVivo, and consciously tried to develop the idea of whole-part-whole analysis advocated by Vagle (2014). Once more, as in the previous study, themes emerged inductively, or through the multiple processes of observation, discussion, interviewing and as transcripts were analysed. A further addition to the design was my intention to create field notes. Towards the end of the ‘21st-Century Learning’ study, I had begun to experiment with a journal in the form of electronic notes that followed the suggestion of Hughes (2006). I voice recorded personal reflections—field notes after observations and discussions during the ‘Being a Teacher’ study, and framed these according to the categories suggested by Hughes (2006). In these reflections, I was aware of Vagle’s perspective on self-reflexive ‘bridling’ in which the researcher’s intentionality is held in rein, allowing the researcher to be open to the intentional relationships that always already exist in the lives of the participants. These voice recordings were also transcribed, and thus became evidence on record to be utilised in the analysis.

The participants included some of those involved in the first phase of the research. In an earlier iteration of this book, and in published articles elsewhere, I attempted to humanise and personalise the participants by assigning them pseudonyms. In response to reviews of this book, and the possibility of participants potentially being identified by readers who correctly guess which schools participated, I have resorted to de-identification of the teachers. It is not possible to completely de-identify all participants, as some are identified by virtue of their roles. All participants have, however, had the opportunity to review Chaps. 4–8.

A final point about design: one of the fundamental difficulties of this design (and a weakness, some will doubtless point out) is the inclusion of a traditional single-cell school among the schools with flexible learning environments. Indeed, when I told a colleague about the various schools, he thought that, in fact, there were two studies—one that was evaluating BYOD at the traditional school, and one that was evaluating flexible learning spaces at the other three. While I can see why he would think along those lines, to do so misses the point, which I will make here,

Table 2.3 Field data summary: being a teacher study

School	Sector	Classification	Data gathering
School A1	Primary	'Futures oriented', built by modern learning environment (MLE) design	3 teacher interviews 2 principal interviews 6 observations 1 staff focus group
School A2	Primary	Blends single-cell classes and MLE	1 teacher interview 2 principal interviews 6 observations 1 staff focus group
School B1	Secondary	'Futures oriented', built by modern learning environment (MLE) design	2 teacher interviews 2 principal interviews 8 observations 1 staff focus group
School B2	Secondary	Overt BYOD approach across curriculum	3 teacher interviews 1 principal interview 11 observations 1 staff focus group 2 student focus groups 1 parent focus group

by repeating my purpose: this study sought to explore, interpret and develop greater understanding of modern teaching and learning practices, and the transitions teachers and school leaders make as they grapple with the challenge of 21st-century learning, the development of flexible learning spaces and the rapidly changing nature of knowledge and learning in a digital age. The implementation of a BYOD policy and the development of associated e-Learning pedagogies by teachers is as much part of what it means to be a teacher today, as I write in 2016, as is the implementation of flexible learning spaces and the development of pedagogies now associated with those spaces. I will now say something about ethics, and then introduce the four sites of investigation.

Ethics

The two phases of research, namely the ‘21st-Century Learning’ and ‘Being a Teacher’, each required separate applications to the Auckland University of Technology Ethics Committee (AUTEC). Challenges included the likelihood of my knowing the principals, and the recruitment of a purposive sample (see Table 2.1) of participants in specific people job roles, thus requiring some kind of privileged access (through the principal), and an ‘all or nothing’ approach (all four participants at each school were required to complete the research).

A challenge in the second phase related to School B2, where classes are typically cohort classes of around 30 taught in a single cell by one teacher. The research focus here was on the delivery of BYOD in Years 9 and 10, thus the principal’s support was required as the invitation would be delivered to a particular group of teachers rather than the whole staff, as was the case at Schools A1, A2 and B1. In those schools, the informational material and invitation was made available to all the teachers, who could self-select whether to be involved.

A more significant problem, requiring much negotiation with both schools and more specifically AUTEC, was around the prospect of my engaging with underage students during my observations. As a registered New Zealand teacher, my presence in the classroom does not pose a legal problem; but do students become incidental participants (there by necessity)? What is the status of any informal conversations I might have with them? My copious parental consent and student assent documentation, was in my view, forbidding. As part of my commitment to a robust ethics process, I nevertheless engaged the staff of all four schools in looking at my various ethics documents and my observational protocol. Of some interest was the attitude of the schools—especially the three with flexible spaces, which had the view that students are so accustomed to visitors, and talking with visitors, they could see no value in asking for these permissions. Indeed, their view was that such permissions would *raise* concerns, not quell them. Several teachers suggested the research could be tainted or corrupted by students assuming a different orientation towards me as the documentation could imply something intriguing or ‘dangerous’ in what I was doing.

Further discussion with AUTEC clarified this matter, and we agreed that I was not in the schools to focus on the students, but on the teachers. I could, however, be ‘chatting casually’ with students without voice recording. As it transpired, whenever I initiated these ‘chats’, I always first asked if I could do so, and if I could write my impressions after we had talked—so, there was no recording of data in the face-to-face situation with students, and field notes were written subsequently. The focus groups at Holyoake, not part of the original design, are covered by an amendment to my original ethics application.

The Four Schools

In Tables 2.1 and 2.3, I have referred to these sites as School A1, A2, B1 and B2. Subsequently, in other publications, and in the earlier iteration of this book, I gave the schools fictitious names. Despite my decision to de-identify (and thereby, depersonalise) my participants, I have decided to hold fast to the names of the schools. These institutions, like the people who work and learn in them, are living entities. The notion of materiality is one I will refer to in Chapters Three and Six, to illustrate the idea that we should not think of physical artefacts in the world as somehow passive and waiting for human intervention. To some extent, physical artefacts, like buildings, have agency, and have a way of acting on their inhabitants; thus, the schools will have names!

Innovation Primary

Innovation Primary (School A1) is a Year 1–8 state primary school, established in 2013, and designed according to innovative educational design principles. It is located in a rapidly growing suburban area.

Angelus School

Angelus School (School A2) is a Year 1–6 state-integrated special character school, established in 2010. It is located in a rapidly growing suburban area. Angelus School has a blend of traditional single-cell rooms (one class, one teacher), and two flexible spaces accommodating three classes and three teachers in each.

Millennial College

Millennial College (School B1) is a state secondary college, located in a rapidly growing suburban area, established in 2014. In 2015, when the ‘Being a Teacher’ study took place, its roll was made up of only Year 9 and 10 classes. The roll will continue to grow as the foundation cohort moves through senior secondary, eventually to Year 13.

Holyoake College

Holyoake College (School B2) is a Year 9 to Year 13 state co-educational school, established in 1970. Its current, multi-ethnic enrolment is 1755 students and it has a staff of 105 teachers. It is located in a long-established suburban area.

Conclusion

The critical development of new knowledge is urgently required in the area of current developments around learning environments in New Zealand, where the subject is somewhat under-researched and beset by negative media commentary and ill-informed anecdotal opinion amongst many teachers and parents. In the area of initial teacher education, fresh and informed perspectives will support the preparation of student teachers faced with quickly changing working contexts. This chapter has, by way of introduction to the later content of this book, given a sense of the initial studies that have provided the data on which this book is based. Still with the objective in mind of challenging the notion that ‘there is no research’, the following chapter provides a literature review. The review also serves the purpose of highlighting specific themes on which to base provocations and raise areas of further interest to researchers, particularly once various findings are considered in the framework of critical discussion.

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