Rethinking Student Engagement and Learning Partnerships: The Knowledge Producing School

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I am the author of the thesis entitled “Rethinking Student Engagement and Learning Partnerships: The Knowledge Producing School”.

submitted for the degree of Doctor of Philosophy

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Abstract

This research folio of thesis and professional writing is based upon four years of fieldwork in an urban primary school in remote North West Queensland, Australia, at which I was the principal. The research was a study of what happens when students work on tasks that produce knowledge that has value to the local community. Schools that produce knowledge for this purpose are called knowledge producing schools (KPS). Two aspects of school-based knowledge production that are the focus of my research are student engagement and learning partnerships with the local community.

The thesis draws upon an actor-network (ANT) sensibility to enact the KPS work at the school. I argue that KPS work interferes sufficiently with the practices of the everyday classroom to generate opportunities for students who previously were disengaged from schooling to become re-engaged. The combination of a changed materiality of the classroom and expertise that comes from the local community generates practices that are not easily meshed with the practices of the routinised classroom. These modest interferences, fragile as they are, are crucial to the success of each KPS project and the associated educational goods that are enacted.
Table of Contents

Acknowledgements ........................................................................................................ iv
Abstract ....................................................................................................................... v

Chapter 1: Mapping the research folio ................................................................. 1
  Beginnings ............................................................................................................... 2
  Enterprise education ........................................................................................... 5
  Central Queensland University ............................................................................ 5
  Reference group .................................................................................................. 5
  Me and “doing school” ...................................................................................... 6
  Me and doing school a little differently ............................................................. 12
  Outline of the folio ............................................................................................... 16

Chapter 2: Literature review ........................................................................ 18
  Introduction .......................................................................................................... 18
  School knowledge ............................................................................................... 19
  Knowledge, curriculum and pedagogy .............................................................. 27
    Intellectual quality .......................................................................................... 30
    Relevance and its cousins .............................................................................. 34
    Supportive classroom environment .............................................................. 36
    Recognition of difference .............................................................................. 38
  Knowledge producing pedagogy ....................................................................... 40
  Pedagogy and knowledge production .............................................................. 40
    826 National .................................................................................................. 41
    The Khan Academy ....................................................................................... 42
    Special forever ............................................................................................... 43
  Writing about KPS ............................................................................................. 46
  Student engagement ............................................................................................ 48
  Learning partnerships .......................................................................................... 61
  Conclusion ............................................................................................................ 69

Chapter 3: Studying a knowledge producing school ..................................... 73
  Introduction .......................................................................................................... 73
  Working towards an actor-network sensibility .............................................. 77
  Labels, actors and hyphens ............................................................................. 80
  Theory and amateurs ........................................................................................ 82
  Methods .............................................................................................................. 91
  In the very beginning ....................................................................................... 95
  Conclusion .......................................................................................................... 97
Chapter 4: Interfering in stories about school ............................................ 99
  Introduction ......................................................................................................... 99
  The Indigenous stories writing project: telling tales out of school .............. 101
    Hinterlands and storytelling ........................................................................... 105
    Willie Wagtail ................................................................................................. 120
    The Story of Wayne ......................................................................................... 121
    The Lost Life ................................................................................................... 121
  Valley Visuals art project: tales of engagement ............................................. 125
  Pictures from an exhibition ............................................................................... 148
  It’s practices all the way down ......................................................................... 151

Chapter 5: Learning to make professional use of mess: a modest interference .................................................................................................. 156

References ............................................................................................................ 164

The folio: professional contributions ................................................................. 183

Part 1: The articles ............................................................................................. 183
  Article 1: Leading a knowledge producing schools ........................................ 185
    So what is a ‘knowledge producing school’ agenda? ..................................... 185
    Product or process ........................................................................................... 188
    Real life problem ............................................................................................. 190
    Community development project ..................................................................... 192
    Conclusion ....................................................................................................... 193
    References ...................................................................................................... 193
  Article 2: Getting the balance right: understanding student performance measures in context ................................................................. 195
    The here and now ........................................................................................... 195
    So how do we get the balance right? ............................................................... 198
    What is a knowledge producing school or KPS agenda? ......................... 198
    Monitoring student performance .................................................................. 200
    Assessment ..................................................................................................... 202
    Reflection ........................................................................................................ 202
    Data analysis .................................................................................................. 203
    Planning .......................................................................................................... 204
    Explicit teaching ............................................................................................ 205
    Conclusion ...................................................................................................... 206
    References ...................................................................................................... 207
  Article 3: Elders lead local knowledge production ......................................... 209
    Willie Wagtail ................................................................................................. 210

Part 2: Book chapter .......................................................................................... 212
  Relationship centred schooling and knowledge producing schools ............ 213
    Introduction ................................................................................................... 213
    A starting point: towards knowledge producing schools ............................. 215
    A beginning .................................................................................................... 219
Chapter 1: Mapping the research folio

Introductions to accounts of a research study can be tricky. I want to convey what follow but in a way that does not represent what happened as something that was linear or tightly planned. This document is a folio of my work during my professional doctoral studies. It is structured in a way that suggests a kind of flow or logic but I am also aware of the iterative, often circular intellectual journey I undertook. Professional doctorates offer the opportunity to contribute knowledge to the profession. I am a teacher and principal. This folio of thesis and professional writings is, I hope, a small contribution to thinking about doing school a little differently. Doing or enacting school has become, as a result of this study, a way for me to think about schools and schooling. That is, school is not some given or predetermined “thing” but a phenomenon that is enacted or re-done on a daily basis in many locations around the world. What is of interest then is how this happens, what happens and how do the myriad elements that go to make up “school” come together in a way that appears coherent and logical, like, I hope, this folio may, to some extent, appear.

I will outline in more detail the structure of the folio at the end of this chapter, but in the interests of conveying some sense of order to the reader, I offer a brief account of the folio here.

What follows is very much a story about me, the school in which I worked, the teachers, students and people from the local community with whom I worked and, of course, the attempts at doing school a little differently. In this chapter, I trace the beginnings of the research. Then follow two contextualisations, one about my own struggles with “doing school” and one that draws together literature that has informed my thinking and the thinking about this research: the review of literature in the next chapter. How I ended up thinking about this research is in the chapter labelled research methodology. Then follow two accounts of projects. I chose two to give them sufficient attention. I had many to choose from—too many. In the final chapter of the thesis, I write about what I see to be the contributions this study has made to professional knowledge. The final section of the folio is a selection of professional papers and materials I wrote that came from and are associated with the conduct of the study.
Beginnings

I think that, at the core of all teachers’ thinking, is an ongoing concern to improve what they do. The urge to improve can be nudged by systemic change, which in turn is driven by the now common practice of comparing the educational achievements of countries internationally. It seems that the nature of schooling is one of being in a never-ending cycle of change, of aiming to improve the outcomes of students. So it is important to locate this study within that broader frame of improving schooling. What I find interesting is that the work I did in exploring doing school differently has some intersection with these larger agendas, perhaps in the sense that it too is aimed at trying to improve things, but in the main, this work seems to be at odds with much of the top–down curriculum agenda setting that has taken place during the life of this research. This has meant a kind of juggling act, a reverse engineering of this work associated with this research back into the accountability frameworks associated with various systemic reforms.

This mindset, I think, predisposes me to consciously, or perhaps unconsciously, be on the lookout for ways to improve things for the children and teachers with whom I work. I guess that is why the events that I briefly outline here as a kind of pre-history of the project took place.

As I imagine occurs with some other research, the study described in this folio came about by happenstance, curiosity and more than a touch of necessity. Like many teachers in Queensland, I had moved about a good deal to improve my career opportunities prior to commencing this research. I worked on a number of statewide literacy projects. I worked in various schools at locations that were geographically scattered. All of the schools at which I worked were trying to cater for a range of disadvantage among their students. At the time when the ideas for this research began to come together, I was principal of a primary school in an urban area of a remote mining town. The school had a high proportion of students from disadvantaged backgrounds, and the system indicators showed the typical patterns of student underachievement that is generally associated with different forms of disadvantage.

Not long after I arrived at the school, around 2002, I reconnected with Chris Bigum, an academic with whom I had worked during my Masters studies at Central Queensland University. We talked about the possibility of further research, which I
did not take too seriously at the time. Our conversation turned to his current research interests. He was working with primary schools in the Rockhampton region, exploring the notion of schools being sites of serious knowledge production\(^1\) (2002b). I became curious about a curriculum that promoted the idea that kids learn through doing real tasks in their local communities. He used the label knowledge producing school (KPS) for this style of curriculum.

I will elaborate the notion of KPS through the thesis, but at the time, my journal notes indicate that my curiosity was piqued thinking about schools as places that produce knowledge, rather than places that take knowledge in and make it available to students via various curriculum framings. In our conversation, two things struck me as important. From early accounts of this work, it seemed that students who were disengaged from schooling but participated in KPS work became engaged, not just with their KPS work, but with routine schooling as well. The second point of interest for me was the sourcing of expertise for KPS projects from the local community. It took me a while to join the dots so that I had a clearer sense of what I wanted to work on, but this was probably the first in a series of incidents that nudged me towards doing this research.

What interested me most was the observation that students who in “normal” classes were regarded as disengaged or not coping did well in the project-oriented KPS work. This observation struck a chord. I have always loved organising and taking students away on school camp. Camps always brought surprises—surprises in what students could do and which students would “shine”. Camps are a great chance for teachers to get to know students in a less formal situation and see them in a different light, and vice versa. I recall many years ago teaching a boy named David, who lived on a farming property. He was a bit of a larrikin in class and more practically than academically oriented. I recall, on one excursion to a national park, he yelled at me to stop and I did. Before I could blink, he grabbed a stick, swung it and killed the tiger snake that I was just about to tread on.

Just as I realised and appreciated that David had a great deal of knowledge, skills and qualities that had not been obvious to me in the classroom, I also knew that opportunities for learning were equally important beyond the classroom. Of course,

\(^1\) The paper is no longer available online. It is available at: [http://chrisbigum.com/downloads/KPS_pv.pdf](http://chrisbigum.com/downloads/KPS_pv.pdf)
some of the important thoughts for me were that (1) textbook knowledge is not always the most reliable or relevant; (2) students and teachers are both learners and teachers; and (3) positive learning partnerships are built by interrupting your own current understanding, by experiencing and learning from people and things of different backgrounds and expertise working together to achieve something together.

My teaching experiences, which have been predominately in rural or remote schools, had fostered an interest in knowing more about how to engage students in real tasks and enable all students to “shine” in ways that would not normally be seen in the classroom. I think this is a very important issue, particularly in rural and remote locations where the majority of teachers are often “visitors” to the local area for a relatively brief time, with most teachers staying between three to five years before transferring to a preferred coastal location. I have often told colleagues, “You can come here, teach the same units you would have taught on ‘the coast’, mainly mix with other teachers and not get involved in local activities or you can really have an adventure and learn about your students and this community”. When teachers come and take on KPS-style units, they have to learn about the local histories, people, places and so on. It means they learn and connect with the community in ways that are beneficial to them and the community. Being passionate about this topic meant that I knew this KPS research would keep me interested, and as I am a busy working mum, the study has been fairly drawn out and has taken quite a few years … but it has kept my interest.

Going back to the early history of this work, I began to explore possibilities of KPS work with local community groups. It was not easy. There is a commonly held view that school students are not capable of doing anything that would be of real value to people outside school. I persisted. I wanted to explore the idea on the ground, so to speak. This was all prior to my signing on to do a professional doctorate.

To begin this type of work in our school, it was important to establish some local networks. As opportunities arose, I took time to explore them, and in this way, I began consciously looking to make connections for our KPS projects. Following is a brief summary of what were influential early moments in the development of the study.
**Enterprise education**

Our school won a small grant from the Commonwealth Department of Science Education and Training to explore opportunities for students to engage in what was then loosely understood as enterprise education. I gained a great deal of support and advice from the external consultant for the project. I recall one very important piece of advice given by the project consultant, which was “stick with one or two key support people” and “start small”, and that is what prompted me to develop a pilot study in a Year 5 class with 2 volunteer teachers. As principal, I am sensitive to the asymmetrical power relations between my staff and me. The teachers who volunteered expressed not just an interest but also a commitment to doing something different to see if it would improve outcomes for their students. They and I shared a view that the small projects they undertook were little experiments—probes to see what happens when you work with/in a KPS mindset. It was a new and different way to work for them and me. I will elaborate on this work later in the thesis.

**Central Queensland University**

My soon-to-be doctoral supervisor, the then Associate Professor Chris Bigum became a critical friend for us. He presented at our district Outback Learning Conference 2002 and provided ongoing support and encouragement through teleconferences and liaison with another school in Central Queensland. Through him, we met the principal from another Central Queensland Primary School, and in 2003, one of my pilot study teachers and I visited her at her school site to see, firsthand, their KPS work.

**Reference group**

Drawing on the enterprise education consultant’s advice, I talked to a number of local community and business people and it became obvious that I did not have time to spend on building partnerships this way. I decided to “start small” and our initial reference group became a parent who was in training at Mt Isa Mines and another person who was a coordinator from the State Emergency Services (SES) and who had previous connections with the school. The SES person was also the first person who showed a genuine interest in working with students on a real project. The SES project became our pilot study. The reference group’s support and advice to teachers exceeded my expectations. For the first time, we had an opportunity to learn how we could involve our students in projects with the local community.
These events got me thinking more about not just doing more at the school along these lines but also how I might share the knowledge I was gaining as I nurtured and encouraged a small number of teachers to take on this approach to curriculum. It was during another conversation with my supervisor-to-be during which I was asking about further study\(^2\) that the possibility of undertaking formal research around this work came up. I wanted to explore further what I had now seen some instances of: students who were labelled as disengaged suddenly becoming re-engaged with schooling. The SES project further underlined my curiosity about making links with community groups for purposes beyond show and tell, which is to have students work on problems with and on behalf of community groups.

**Me and “doing school”**

All of what I have briefly described, in part, derives from my own professional history. As I have reflected, I think I was predisposed towards KPS or KPS-like projects from years of working in various education settings. To fill in a little more of the background to this research, it is useful to briefly recount the policy developments that occurred in Queensland and their articulations to national and international developments. From what I have seen, how teachers and schools come to terms with new requirements determined by policymakers is complex. I cannot speak for others, but for me, there are always tensions between the educational values one holds and those that appear to be implicit in policy requirements.

In the late 1980s, I taught for a year in the UK, and I remember clearly that it was just prior to the introduction of their national curriculum. In the school where I taught, teachers had to regularly present planning to the head teacher. On doing this, I received feedback that I need not teach grammar and derivation in spelling because they were not required elements of the new English program. Naturally, I replied, “sure”. I went back to my class, omitted it from my planning documentation and continued to teach derivation, grammar and other essential elements that I knew to be important within an English program. Fortunately for me, after the summer break in 1989, I was encouraged to re-introduce those elements, as grammar and spelling became more important parts of the new national curriculum. This was perhaps my first experience of a tension that runs through all attempts at curriculum reform. I might have been guilty of using my “teacher power” to resist the initial change

\(^2\) I was thinking of a postgraduate qualification in information technology.
because I felt those aspects of curriculum were important and in the best interests of my students. I needed a work-around. It worked. Moore-Johnson’s (1990) research notes that one of the reasons teachers want control over what is taught, and how it is taught, is that it allows them to target specific students’ needs. I think all teachers develop work-arounds, ways to “do school” that can be documented as conforming to requirements but that are re-engineered in the classroom to better meet the needs of their students.

In Queensland education, there were a number of curriculum and policy changes and significant research studies that took place during the period leading up to and during the conduct of this study. Curriculum work like that of KPS could very easily have been pushed to the fringe and then dismissed as not being core work or being at odds with the latest systemic policy directives. What I found was that an innovation such as the one that is the focus of my research requires continual renewal and reinvention to justify its existence, especially as it competes with stronger, more high-stakes agendas such as that associated with standardised testing and reporting. This is especially the case in remote and rural locations where there is a high turnover of staff. Schools have to continually introduce new staff into the extant practices and directions of the school and their interplay with current systemic policy requirements. In many respects, it is a balancing act, balancing time, intellectual effort and, importantly, how you see the needs of the children in your care versus what the system “sees”.

There is no shortage of literature that argues for balancing high-stakes curriculum. For instance, Vars and Beane (2000), along with other middle schooling advocates, argue that the “discipline concentration of high stakes norm-referenced standardised achievement testing” need to be balanced against “other social, behavioural and participation outcomes of schooling: including attendance, improved self-esteem and confidence, decreased behavioural problems and so forth”. While advocacy plays a role in keeping these important issues to the fore, there is the usual gap between the worthy goals listed by Vars and Beane and realising those goals for all of the students in my school.

If only these tensions were as simple as scholarly literature tends to represent them. The policy debates about schooling that took place during my research seemed, at the time, to be heightened. As new ways of making schools and principals accountable
for what goes on in their schools began to emerge, it became difficult to work out what was intended and which bodies were behind particular emphases. Was I dealing with a business-inspired agenda? How does a school make sense of and respond to demands around terms such as quality, innovation, change, client engagement, accountability, back-to-basics, conservative creativity, outcomes, boom and bust, market forces and standards? Of these, accountability grew as an important focus for schools. This came about in part from the perception that “public accountability of education expenditure should be more transparent, and the education standards can be improved through external monitoring and resultant policy actions” (Cumming, Wyatt-Smith, Elkins, & Neville, 2006, p. 13).

The other key term that was the focus of research studies and appeared in most policy statements was quality. A significant research study that took place in Queensland and had a significant effect in Queensland schools was the Queensland longitudinal study (Lingard, Ladwig, Mills, Bahr, et al., 2001). Among their many findings was one in relation to quality. Quality student outcomes, they argued, were not defined in terms of results from limited, standardised testing of basic skills, but rather in terms of sustained and disciplined inquiry focused on powerful, important ideas and concepts that are connected to students’ experiences and the world in which they live (Lingard, Ladwig, Mills, Bahr, et al., 2001).

It is important to recall that I was aware that these developments were not simply the expression of state or national interests. There was a clear international trend towards public accountability of education expenditure and a move to “measuring” outcomes through national standards. Australia has, to date, been influenced by policies and practices of both the US and the UK, countries where national curriculum and standardised testing results and meeting benchmarks directly impact on school funding. The US “No Child Left Behind” legislation and strategy has seen significant changes in system-wide accountability around literacy and numeracy results through standardised tests and state-based benchmarking. In order to address the standards and retain funding sources, schools in some American states have reduced or cut curriculum offerings such as arts and physical education in order to offer more intense support on core literacy and numeracy skills. Interventions for non-achieving students are also mandatory, and if non-achievement continues, students must be offered an opportunity to relocate to another school. However if they opt to do this, another school is not obliged to accept the enrolment.
The UK introduced a national curriculum and a regime of standardised tests and consequent publishing of school data in league tables that have then been linked to funding. A scenario similar to that in the US has developed, with a narrowing of the curriculum and a heavy focus on high-stakes testing.

In Australia, there are similarities to both the UK and US education policies in current attempts to move towards more public transparency and accountability. The moves are based on national standards and assessment data. The developments, it has been argued, produce a mentality of “good” school, “bad” school, which is demoralising for teachers, students and families who come from schools where student achievement levels are under the benchmark (Cumming et al., 2006; Slee, Weiner, & Tomlinson, 1998). This was affirmed by research (Queensland Government, 2009) into student assessment regimes, which suggested that:

Full-cohort testing often reduces the self-esteem of lower-achieving students and makes it harder to convince lower-achieving students that they can succeed in other tasks. . . . In School accountability regimes, results of tests are frequently used to judge the quality of teaching in schools. . . . [and in the US] teachers began to “teach to the test”, resulting in a narrowing of the curriculum and diminished teaching oriented to student diversity. (pp. 3–4)

Caldwell (2009) suggests that “Australia should follow the lead of top-performing Finland, where there are no national tests and no league tables, and build the capacity of schools to test well, personalise learning, and provide useful, valid and timely information to parents” (p. 2). Caldwell and Harris (2009) describe Finland as a “high trust country”, which supports teachers’ professional judgement in approaches to learning and teaching.

With the rise of accountability has been a growing focus on and interest in quality in education. In 2005, the Queensland Government’s “Smart State” strategy (2005) made explicit two overarching objectives for schools:

1. to improve the quality outcomes for all students; and

2. to increase the retention rates of students.

These two objectives are of course linked, the assumption being that quality outcomes derive from quality curriculum and pedagogy and that these two factors
contribute to preventing students from becoming disengaged and dropping out of school.

One aspect of the Queensland Government’s strategy that appeared during this research was called “learning or earning” and focused on providing pathways for students other than the academic track. For students in secondary schools or equivalent, there was the opportunity to undertake qualification through a Training and Further Education (TAFE) or similar provider while enrolled at school. The message by Education Queensland at the time was that learning is the key driver for increasing retention rates, by expanding learning pathways to include academic and vocational education.

While there has been a focus on retention in secondary schooling, research conducted in the middle years suggests that disengagement from learning can begin as early as eight or nine years of age (Cumming & Cormack, 1996).

Disengagement manifests itself in many ways in primary schools, including absenteeism, non-interest, behaviour problems and so on, but later impacts on a student’s retention and engagement in secondary schooling. In an early consultation study by the Queensland Government in 2003–2004, the public was invited to respond to questions about how to implement the middle phase of the Learning State School Action Plan. The main aim of the consultation and process was to maximise student learning and engagement at this crucial juncture between primary and secondary schooling. International research indicated that students who complete Year 12 or equivalent have a great capacity to be successful and gain further qualification or employment (Queensland Government, 2004, pp. 3–6).

Connor (2002) notes that most curriculum reform since the 1980s has been driven by a desire to improve student engagement with learning. She argues that the current curriculum is failing to engage those students most at risk of failure. The “competitive academic curriculum” has generally remained dominant; however, as Connor suggests, students are “voting with their feet” with “large numbers [of students] avoiding school, attending but not participating, or attending but causing trouble”. The dilemma is obvious when “these same students are over-represented in low literacy and numeracy outcomes, low retention into higher education and later crime and suicide statistics” (Seaton, 2002, p. 2).
Reid, Green, and English (2002) suggest that many of our behaviour problems today are due to problems with attitude and interest. They argue that for many students “there is not a lot in it for them, particularly when they are not members of the discourse community that values [and sees benefits in] formal education” (p. 23). They call for the creation of the conditions that will foster a community that involves and engages students. Communities are characterised by the constantly changing dynamics and tensions between power and resistance within social relations. They argue that this means that “we need not look for the one right way to teach, or refrain from taking risks in our classroom relationships by trying new approaches and ways of working” (J. Reid et al., 2002, p. 23).

The Queensland School Reform Longitudinal Study (Lingard, Ladwig, Mills, Bahr, et al., 2001) found that, although classrooms were generally supportive and dealt with student welfare adequately, there was a need for greater intellectual rigour and focus in curriculum and pedagogy. The study suggested a multidimensional model of classroom practice called “productive pedagogies”. The four dimensions of productive pedagogies are:

- intellectual quality;
- relevance or “connectedness”;
- a supportive classroom environment; and
- recognition of difference.

The Queensland longitudinal study was research that built explicitly on prior international research, particularly that of “authentic pedagogy” and “authentic achievement” studies undertaken by Newmann et al. (1996; 1995) at the University of Wisconsin.

Newmann et al.’s research identified that there is no magic elixir for school restructuring but identified four key factors in successful schools: student learning, authentic pedagogy, school organisational capacity and external support. The Wisconsin Centre for Education Research developed a particular vision of high-quality student learning, referred to as authentic student achievement. The vision included three parts: (1) construction of knowledge, (2) disciplined inquiry and (3)
value beyond school. These elements are also key aspects of that detailed within the reform known as the Queensland Productive Pedagogies.

As anyone who works in education knows only too well, there is no shortage of models, advice, requirements and directives to “help” teachers carry out their work. It is fair to say that during the period of the research reported in this folio, the circumstances in which teachers worked were particularly noisy and confusing.

Every classroom is different, each comprised of a teacher and generally around 20 to 30 students, each with different personal qualities, knowledge and skills. One of the teacher’s jobs is to teach, to bring students from what they know and can do to an appropriate standard or above, as outlined in the relevant curriculum materials. When students come to school with many different attitudes, interests, levels of engagement and academic knowledge, this is no simple task. The sometimes overwhelming attention to student achievement in the media, and in both political and education arenas, brings a great deal of attention and conflicting opinion about how to best improve outcomes for all students.

Public perceptions of teachers and teaching add to the difficulty for teachers in maintaining and sustaining their professional ethos. Teachers do not simply “transmit knowledge” to their students and assume that it will be learned, as is often argued in public media. At the very least, to understand new information, students need to be given opportunities “to engage in the process of coming to know and understand it, through active participation in problem-solving, exploration, observation and practice” (J. Reid et al., 2002, p. 25).

Looking back, it would be easy to say that the research I began flowed from a coming together of the coincidences I have briefly outlined and in a policy climate that was noisy, demanding and confusing. I now want to outline some of the preliminary explorations of KPS ideas in my school.

**Me and doing school a little differently**

I outlined the beginnings of what led to my undertaking a formal research study of KPS work in my school earlier in this chapter. What I want to do now is briefly recount one of the early explorations I did with teachers, which is work that occurred prior to the formal research I undertook. As it turned out, getting a couple of pilots up and going gave me many more insights into what this kind of work looks like, and
what student, teacher and community reactions can be. This and other pilot studies confirmed the observation from studies in other places about the impact on disengaged students who undertook KPS projects. And while that remained a key interest for me, the pilot work opened up a number of other intriguing issues that I ended up clustering around the notion of learning partnerships with members of the local community. The pilot work proved to be a useful precursor to the formal research I undertook. My intention at the beginning of the pilot studies was simply to examine the KPS approach to curriculum with a view to seeing how it would work in the school. I did not begin to entertain the idea of doing research until I had seen a good deal of what goes on when KPS projects operate in a school.

At this point, I want to step back and write a little more about the idea of KPS to provide something of a framing for what follows. The notion of KPS was developed by Bigum (2002b) over 10 years ago. The idea that schools can be sites of serious knowledge production arose from professional conversations he had with teachers in the early days of computer use in schools. Among other things, the KPS idea was originally intended to disrupt the notion of seeing the main role of information technology (IT) in schools as a delivery mechanism and positioning schools and their students and teachers as consumers of information and ideas. Bigum recalled that, in a conversation with a primary teacher, he suggested that collecting data and producing knowledge might be a way to tackle the problem of what to do with students in the middle years (C. Bigum, personal communication, 2001). The primary teacher reacted strongly. She said, “Primary schools collect data all the time. We just don’t do anything with it!” But it was his move to CQU and the chance meeting with a principal who was running a KPS but using a different label to describe it that was a crucial point in Bigum’s thinking about the notion of KPS.

So, in part, there seemed to be a natural fit for primary schools and doing productive knowledge work. The dots had not been joined for me yet. As the pilots began to happen, I found that teachers were highly motivated by the KPS work and eagerly invited me to their classes or on outings as the units developed. The teachers often voluntarily sent me emails or files with photos or artefacts or caught me in the playground to tell me what was happening with the unit or about particular students’ achievements and progress because they were excited by what was happening. For me, seeing both students and teachers excited, motivated and engaged in their work was something to celebrate and to pay attention to.
I want to briefly outline the details of one of the pilots here. It and other pilots conducted around the same time had an impact on my thinking about researching KPS work.

In the SES pilot, which is described in more detail in Article 1 of the folio, the local SES wanted to know what people in our community did and did not know about the role of the SES as an organisation of volunteers. I had an initial meeting with a representative of the local SES group who had joined the small reference group I had set up to explore opportunities for KPS work in the community. The next meeting involved two teachers who had expressed interest in the possibility of a project with the SES along with some students from their classes. The project then moved back to the class to develop the survey/interview instrument and plan the project. I kept an eye on how the project developed, occasionally nudging the teachers gently to look beyond the classroom for resources and contacts for the interview work they eventually undertook.

The teachers and I were impressed with the energy and motivation the students demonstrated in developing, collating and presenting the survey data. Teachers were surprised by the notable improvement in teamwork. They also experienced some level of discomfort when planning with people from the community. They felt that, at times, the unit was “out of their hands”.

The student feedback was overwhelmingly positive and they showed the motivation to undertake the tedious tasks such as writing surveys, sending them out, chasing people up for them and then collating the data. The students said they enjoyed the unit far more than any other unit that year, which certainly surprised their teachers. Teachers thought students worked well on “basic” lessons because they needed that knowledge to be able to apply it to tasks that popped up during the project. The teachers said they thought students would have rated their previous unit, one about goldmining, higher because of the hands-on fun of digging for gold in the classroom’s mock goldfield. The students overwhelmingly preferred the SES project.

In conversation with teachers at the completion of the project, I was struck by their perceptions of what improved student engagement and what the students found motivating. The negotiations that took place in the classroom and with the SES were outside the normal routines of classroom work. The roles of students and teachers were disrupted somewhat.
When I reread this account now, having participated in many KPS projects since that time, I can see recurring themes that were also evident at the pilot stage. One is that KPS work is challenging for teachers, who are put into a role of facilitating negotiations between their students and members of the local community. In the SES project, the teachers involved told me that they felt a bit uncomfortable when planning with SES people. They did not have the usual total control of running a class. What was most pleasing for me was to see how in this and other KPS projects, the teachers developed heuristics that enabled the outside experts to play their role, a role that teachers could not play, while at the same time being able to adapt and adjust their planning without disrupting what I came to think of as the flow or shape of each project.

Another theme that was evident in this and other pilot projects was the voice given to students. When asked to reflect on the SES unit, the students said things like “we liked learning about the SES”, “it was good interviewing people”, “we did all the work ourselves”, “the teachers had to ask questions too” and “we got to work with people [referring to other students] that we don’t normally work with and that was good”.

During the pilot study, the students took their task very seriously. It was a real job the SES needed them to do. The SES reciprocated and showed confidence in them, giving them feedback on their reports as the project progressed. The teachers were surprised by the notable improvement in students’ teamwork skills, as compared with what they had shown previously in other class activities.

The SES was very impressed by both the findings and the manner in which the ongoing communication updates and final presentation were completed. The local SES used the project information to seek additional funding, from their state body, to support local awareness-raising initiatives.

From these uncertain beginnings, I felt that it was worthwhile examining in more detail what was going on when KPS projects ran. What was it about this kind of schoolwork that engaged students? What role did the outside experts play in supporting student work? And, as principal, how do I manage this kind of work that is clearly outside the conventional yet rich in so many opportunities to support the learning of students and their teachers?
These were the questions I began to ask as I watched the KPS pilots unfold. They led me to undertake a formal study, which is reported in this folio.

Outline of the folio

In this final section of the chapter, I outline the components of the remainder of the folio. It includes a review of relevant literature in the field, a description of the research methodology I applied, an analysis of research data gathered during the fieldwork, a concluding chapter that explores the implications of the research and its contribution to professional knowledge, and finally, the collection of my professional writing about the research.

In Chapter 2, the literature review, I present an account of literature and theory in relation to the notion of a school as a site of serious knowledge production. The chapter has three foci: school knowledge and its relationship to everyday knowledge; scholarship and research concerned with knowledge, curriculum and pedagogy that have strong resemblances to KPS work; and finally, the notion of knowledge producing pedagogy, particularly as it relates to my two areas of interest: student engagement and learning partnerships with the community.

In Chapter 3, which discusses the research methodology, I present an account of my engagement with the body of work commonly known as actor-network theory (ANT) and elaborate why this approach worked well for me as a principal and researcher. I trace the journey I took through a set of ideas, which were initially strange. Through my personal mapping of this new way of thinking onto my practices as a principal, I began to be drawn to and develop my own ANT sensibility. The implications of this shift and what it meant for my research practices are detailed in the chapter.

In Chapter 4, Interfering in stories about school, I present two “data stories”. They are accounts of the modest interference that occurs in classroom practices when a KPS project is taken on. The interferences, as I go on to argue, prove crucial to the manifestation of my two interests: student re-engagement and learning partnerships. The chapter details the argument through each of the data stories, one concerned with Indigenous storytelling and the other with a public art project, “Valley Visuals”.

In Chapter 5, Learning to make professional use of mess: A modest interference, I explore those elements of KPS work that, when taken together, generate opportunities, particularly for students, to do school differently. I examine in
particular the meshing of a changed materiality of the classroom with the involvement/interference of experts, all framed within a project that has an audience that is markedly different from that which normally considers the outputs from classrooms. In these considerations, I take up the problem of how a folio such as this can contribute to professional knowledge.

The final section is a collection of my professional writing during this research.
Chapter 2: Literature review

Introduction

In Chapter 1, I provided an account of the influences that shaped the research study I undertook and the circumstances that were affecting my school at the time. In this chapter, I examine the literature that has informed my thinking about the notion of a school as a site of knowledge production.

There is a view that research is something that is planned and executed in a step-by-step process, as it is portrayed in the natural sciences.\(^3\) My experience has been that, in part, that is the case, but it is also the case that coincidence, accident and picking up on ideas because you have particular predispositions are also an important part of how this research developed for me.

As I mentioned in the opening chapter, a chance conversation with my supervisor, who at the time was working with schools that were exploring the idea of schools as sites of knowledge production, was the trigger that led to the work described here. After these beginnings, it was important for me to examine what had been published about the ideas that informed the KPS notion as well as those aspects of interest to me professionally: student engagement and the role of the community in supporting student work. Central to both of these considerations is the notion of knowledge, at least as the term pertains to schooling.

This chapter has three components. In the first, I consider the notion of school knowledge and its relationship to everyday knowledge or the knowledge that “sits outside” school. As I discovered, school knowledge has been the focus of many scholars over the past 50 plus years. While some of the considerations in this literature can be linked to my study, I became interested in the scholarship that can be linked to the KPS work described in this folio. In the second part, I examine literature that relates to knowledge, curriculum and pedagogy. While this is a vast scholarly terrain, I have drawn mainly upon the work from the Queensland longitudinal study and the preceding work carried out by Newmann and his colleagues at the University of Wisconsin. I have chosen this work because of the overlap and similarities it has with KPS work. I make use of the four dimensions of

\(^3\) The reality is a little less linear, as, for instance, Latour and Woolgar (1986) demonstrate.
productive pedagogies—intellectual quality, connectedness, supportive classroom environment and recognition of difference—as an organiser for examining the work of both projects. The third section of this chapter draws on the previous elements of the review to consider knowledge producing pedagogy and two of the foci of my research: student engagement and learning partnerships.

School knowledge

To many teachers and principals, knowledge is an educational given. It is something we, as teachers, help develop in our students. It has value in the sense that if students can demonstrate certain kinds of knowledge, they can progress through the formal education system. It has value in that it can be added to, built on and used to gain more knowledge. Knowledge, at least in the conversations of staffrooms, attracts all kinds of adjectives, such as practical, theoretical, subject-specific, hard, soft, deep, shallow, personal, procedural, propositional, declarative, tacit and explicit, school, real-world—the list goes on and on. To avoid becoming mired in what appears to be a definitional minefield, I want to draw on literature that, in the first instance, has helped me think through what was going on when students worked on these projects that “produced” knowledge.

I find that in the way that knowledge is talked about by my colleagues and myself, at times, in the schools in which I have worked, it is often separated from the practices that produce it. The importance of knowledge as a social practice is stressed by many researchers (Dewey, 1921; Dollar & Rust, 1983; Eisner, 1983; Gee, 1990; Hargreaves, 2000; Jeanneret, 2009; Knobel & Lankshear, 2003; Lankshear & Knobel, 2006b; Lave, 1988; Lingard, Ladwig, Mills, Hayes, et al., 2001; Luke, 2000; Moiduser, Nachmias, Tubin, & Forkosh-Baruch, 2002; Moore & Young, 2001; Murray, Mitchell, Gale, Edwards, & Zyngier, 2004; Newmann & Associates, 1996; Rogoff, 1995; Seaton, 2002; Slee et al., 1998; The New London Group, 1996; M. D. Young, 1971). Rather than a standalone thing, it is something that arises from the way that people work to make sense of the world. As the New London Group (1996) argues:

Human knowledge is initially developed not as “general and abstract,” but as embedded in social, cultural, and material contexts. . . . [It is] initially developed as part and parcel of collaborative interactions with others of diverse skills . . . a community of learners engaged in common practices centered around a specific (historically and socially constituted) domain of
knowledge. . . “abstractions,” and “generalities” . . . come out of this . . . and must . . . be returned to it or to a recontextualized version of it. (p. 82)

From this position emerges the notion of school knowledge—the knowledge students and teachers work with and on in schools. Even so, the knowledge, which takes on idiosyncratic forms as it is worked on and within different classrooms, still has an externality to it and a “thing-ness” to it as well. Representations of school knowledge come, typically, from outside the school. The disciplinary spaces that characterise how humans have subdivided what is known and can be known are familiar to most teachers. These considerations do not get us very far when it comes to thinking about students producing knowledge. Where does this knowledge fit in the existing scheme of things? Does it count as knowledge? Whose knowledge is it?

It was these questions and others like it that led me to examine the sociological literature concerned with school and school knowledge. There is a long history of theorising school knowledge. The work of Basil Bernstein is regarded as foundational by many scholars, and it continues to play an important part in current debates about school knowledge, as Young (2008) puts it:

The most sustained and original attempt to conceptualise school knowledge is that developed by the English sociologist Basil Bernstein (1971, 2000). His distinctive insight was to emphasise the key role of knowledge boundaries, both as a condition for the acquisition of knowledge and as embodying the power relations that are necessarily involved in pedagogy. (p. 15)

Bernstein (1971) describes knowledge boundaries in terms of two characteristics or dimensions: classification and framing. He writes of classification in terms of the insulation or separation of knowledge. It is strong when the boundaries provide a high degree of insulation, as is the case with, for example, chemistry and music. It is weak when the boundaries provide less separation, as with, for example, mathematics and physics. His notion of framing may be useful for this research. Framing is the boundaries between school knowledge and non-school knowledge. He uses the same dimensions of strong and weak to describe sharp or clear insulation and blurred or overlapping knowledge fields respectively.

While the work of Bernstein offers ways to think about the structuring of school knowledge, to me, one of the key questions is put well by Young (2008), who asks, “What is educationally worthwhile knowledge, and what are (and what should be) the significant differences between curriculum or school knowledge and the
everyday, common sense knowledge that people acquire at home, in the community and in the workplace?” (p. 1).

This question, in various forms, has been at the centre of debates about school knowledge for a long time. The importance of the question is underlined by Moore and Young (2001), who argue that what counts as knowledge “directly impacts on the learning opportunities for pupils in schools and has wider consequences through the principles by which knowledge is distributed in society” (p. 446). Recently, in Australia, we have lived through some fierce debates about what is important for children in schools to know (see, for example, Smyth, 2006a). It is important to briefly revisit these framings of the debate to allow a positioning of the KPS work studied in my research.

Moore and Young (2001) suggest that two broad sets of interests are in competition. One set views curriculum from a neo-conservative or traditional perspective; the other views curriculum from a technical-instrumentalist viewpoint. Regarding the former, they argue that, “it is inspired by the view that the traditional discipline of learning promotes proper respect for authority and protects traditional values (for example, Scruton, 1990)” (p. 447). Further, they argue that the neo-conservative position also sees education as an end in itself rather than a means to an end, as in the instrumentalist position. The neo-conservative position encourages tradition as a way of maintaining standards of learning, creating a condition for innovation and new knowledge, neglecting impacts of political and economic changes. “Because neo-conservatives play down the social and historical nature of knowledge, they see no need for a theory about what should (or should not) be in the curriculum . . . the traditional subjects . . . define the curriculum” (p. 450).

The second perspective is that of instrumentalism. Curriculum choices are linked to the economic needs of the country and the future employability of students. Lingard et al. (2001) identify this line of argument as part of the rationale behind recent school reforms in Queensland. Here, the changing nature of the workforce, the impact of globalisation and the new economy are linked to the future economic growth of Queensland. This view purports that individuals need to learn transferable skills and knowledge and to develop the flexibility and lifelong learner attributes necessary in a yet unknown society and, more particularly, unknown workforce.
Employers and governments claim that students leaving school will not have jobs for life and so need to be able to adapt to changes in the workforce and employment.

These two positions briefly mapped here have been rehearsed many times in debates about what schools should or should not teach. Moore and Young suggest one way past the impasse is what they call a socially realist position on knowledge. Drawing on Durkheim (1995), Collins (1998) and Alexander (1995), they argue that “it is the social nature of knowledge that in part provides the grounds for its objectivity and its claims to truth” (Moore & Young, 2001, p. 450). They go on to make a case for a social realist approach to knowledge, which aims:

(a) to properly reveal the manner in which external power relations might be affecting knowledge both in research and the curriculum and how, and (b) to explore how the forms of social organisation that arise from “cognitive” interests may themselves shape the organisation of society itself. (p. 456)

A social realist approach to curriculum, they argue, provides a basis for:

- avoiding both the ahistorical givenness of neo-conservative traditionalism and a reliance on such notions as relevance or the experience of the learner in decisions about the curriculum;

- maintaining an autonomy for the curriculum from the instrumentalism of economic or political demands;

- assessing curriculum proposals in terms of balancing such goals as overcoming social exclusion and widening participation of the “cognitive interests” that are involved in knowledge production and transmission;

- reorienting debates about standards and knowledge in the curriculum from attempts to specify learning outcomes and extend testing to the role of specialist communities, networks and codes of practice.

(Moore & Young, 2001, pp. 458–459)

I have included this line of argument at some length here because it has connections with what will unfold in the accounts of KPS work in the following chapters and in the professional writings of this folio.
In later work, Young (2008) positions his argument for a social realist curriculum in opposition to curriculum informed by social constructivism. Teachers often cite the latter, in various forms, as a kind of mantra when talking about knowledge and student learning. The social realist approach Young (2008) develops is, as he puts it, “not a replacement for the earlier social constructivism; it is a critique of the earlier ideas and tries to encompass and goes beyond them” (p. 18).

Reflecting on his own earlier work and that of others (Apple, 1979; Durkheim & Allcock, 1983; Moore, 2007; M. D. Young & Whitty, 1977), Young contemplates what knowledge is educationally significant for school curriculum. He examines the key issue of what students should learn and why: “how and what knowledge is acquired and how it should be paced, sequenced and assessed” (Whitty, 2006, p. 7).

Young (2008) picks up on two issues from Durkheim’s (1983) work. First, this work made the distinction between knowledge and experience, arguing that they are “based on different forms of social organisation” (p. 7). The second issue is that, although it is well acknowledged that knowledge is social in origin and has “been created historically by men and women acting collectively” (p. 5), “recognising the social basis of knowledge does not imply that all knowledge is biased and therefore can never be objective” (p. 8).

In contemplating the influence of sociologists such as Bernstein (1971) and Bourdieu and Passeron (1977), Young (2008) argues that it has been well recognised that different children bring different cultural capital to school and that where differences occur between the culture of curriculum and the culture that is acquired in the home, peer groups, or communities, differentiated attainment occurs. This led Young to two ideas about knowledge differentiation: knowledge of power and powerful knowledge. The concept of knowledge of power emerges from Marx’s (1964) saying that “the ruling ideas at any time are the ideas of the ruling class” (p. 14).

A good illustration of Young’s point is made by Christie (2005) in his research into remote education in the Northern Territory, in which he raises the issue of the centralist perspective by education policymakers. Christie questions the “nervous insistence” of equal rights for remote students in areas of English literacy and numeracy achievement. He argues:

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4 Michael Wesch (2009), in commenting on the changed landscape of knowledge that has developed online, makes a distinction in relation to students being knowledgeable versus knowledge-able.
It is difficult to know where these universalising government impulses come from, but they are persistent and powerful. They have led . . . to a fierce commitment to bringing English literacy and numeracy achievement in remote Aboriginal classrooms up towards national benchmarks, at the expense of bilingual education, and the employment of a good number of Aboriginal Education Worker positions. (p. 3)

Young (2008) further suggests that powerful knowledge refers to “what knowledge can do or what intellectual power it gives to those who have access to it” (p. 14). In this regard, Young suggests that powerful knowledge is “not available to children at home” as it is “increasingly specialised knowledge, and schooling . . . is about providing access to specialised knowledge that is embodied in different knowledge domains” (p. 14).

Prior to arguments such as Young’s, for a long time, there was an interest in knowledge that was concerned with how learners come to know. For example, Bruner (1977) argues that the well-known mantra “taking the child from the known to the unknown” and “learning by doing” are about linking learning in lessons and experiences to new learning. Learning by doing is not simply about the practical knowledge that can be learned but also about the internalising of learned abstract knowledge. In regard to school curricula, Bruner suggests there was much debate about what to teach, and how and when, so that students are given a sense of the fundamental ideas of a subject or discipline area as quickly as possible:

School programs have often dealt inadequately or incorrectly with contemporary knowledge, and we have not reaped the benefits that might come from a joining of the efforts of eminent scholars, wise and skillful teachers, and those trained in the fields related to teaching and learning. (p. 3)

Students gaining access to the fundamental ideas of a discipline is, as recent research findings in Queensland (Lingard, Ladwig, Mills, Hayes, et al., 2001) indicate, not as simple as it sounds. This research clearly shows the lack of use of expert knowledge in many primary schools.

To make this issue more difficult, Young (1971) points out that “treating ‘what we know’ as problematic, in order that it becomes the object of enquiry, rather than as a given, is difficult and perhaps nowhere more than in education” (p. 9). Young (1973) elaborates on this idea, pointing out that the new sociology of education began by:
rejecting the assumption of any superiority of educational or “academic knowledge” over the everyday common sense knowledge available to people as being in the world. There is no doubt that teachers’ practices—lecturing, syllabus construction, examining, writing textbooks, etc.—are predicated on just the assumption of the superiority of academic knowledge that is being called into question. (p. 214)

Knowledge, then, on this basis, is not something that is fixed or static but rather is something that is dynamic, changing, constructed and subject to political, social and cultural influences. Knowledge does not exist in isolation, and without a context, it has no applicability; therefore, it cannot be separated from the human networks that create, use and transform it (Lingard, Ladwig, Mills, Hayes, et al., 2001; Nowotny, Scott, & Gibbons, 2001).

The emphasis on learning in connected ways (Lingard, Ladwig, Mills, Hayes, et al., 2001) moves pedagogy beyond knowledge pursuits, and beyond content or subject areas into social and cultural contexts where knowledge must be remodelled, reworked and recontextualised (The New London Group, 1996). It does not disregard subject or discipline knowledge but uses it within relevant and meaningful contexts as a foundation for further knowledge production. The adjective authentic has come to be used to describe pedagogy and learning that are consistent with notions that connect learning with relevance to real-life experiences. Developed by Newmann et al. (1995b), the label is now routinely used to qualify assessment, pedagogy and learning, and has become a familiar part of the lexicon of contemporary schooling.

Scheurman and Newmann (1998) suggest that rather than assuming any particular pedagogy is best, it is important to articulate criteria for authentic intellectual achievement, and then to see what practices tend to result in student performances that meet the criteria. The three criteria that can serve as guideposts for student achievement include construction of knowledge, disciplined inquiry and value beyond school (Scheurman & Newmann, 1998, p. 2). Sitting alongside these considerations is the key question of what is important for students to learn. They rehearse the broad arguments made in this debate:

Some suggest that students spend too much time in unfocused discussions and unproductive group work—and not enough time learning the facts of history, geography, or government; other critics contend that students spend too much time absorbing and reproducing trivial information conveyed by textbooks or
teachers—and not enough time interpreting documents, evaluating perspectives, and thinking for themselves. (p. 1)

They go on to argue that in teacher-centred classrooms where the emphasis is on the transmission of facts and content recall, students often do not reach or attain a deep understanding of the subject and cannot transfer this knowledge to real-life problems or situations. However, it is clear that disciplined inquiry or focused learning is necessary, because students need to learn certain facts, vocabulary, concepts and theories, which they will later use as a foundation for authentic academic performance.

In child-centred classrooms, students are taught to analyse and interpret new information in relation to past experiences. Scheurman and Newmann (1998) argue that although, through this approach, students are involved in what they call active learning such as discovery projects, cooperative group activities or information technology focused lessons, there also is still no guarantee of the quality within the learning that takes place.

There has been a great deal of interest in studying pedagogy with these characteristics (Dollar & Rust, 1983; Kearney, 2004; Kennedy, 2005; Knobel & Lankshear, 2003; Lingard, Ladwig, Mills, Hayes, et al., 2001; Luke, 2000; Masters, 2004; Moiduser et al., 2002; Murdoch, 2002; Newmann & Associates, 1996; Rogoff, 1995; Scheurman & Newmann, 1998; Slee et al., 1998; The New London Group, 1996). The interest is in student participation in a pedagogy in which students are able to make meaningful connections between current knowledge, experiences and ways of knowing, and what is often called academic knowledge. Various labels have been used to describe pedagogy of this ilk—productive, authentic and real-world being some.

The more I thought about these arguments and claims, the more I found myself thinking about the bigger question, the purpose of education, about which much has been written. It was here that I returned to Tyler (1949), whose work had struck a chord with me during my Masters study. Tyler argues that, generally, the aim of the school is the transmission of information and knowledge. He argues that it is in the application of what is learned to real-life situations that students are given the opportunity to think at a higher level than simple recall.

Tyler (1949, p. 8) asks four questions about education:
• What educational purpose should the school seek to attain?

• What educational experiences can be provided that are likely to attain these purposes?

• How can these educational experiences be effectively organised?

• How can we determine whether these purposes are being attained?

These questions are timeless. In practice, they continue to hover above the busy activities we call schooling. School community and staff work together to develop plans that meet the specific needs of their own community but also address mandates within state or national agendas. Schools utilise certain curriculum requirements, including the implementation of syllabus materials and assessment tasks such as national standardised tests. Then, every so often, an incident or a development external to the school prompts a revisit to these questions or versions of them. Pragmatic versions of these questions—what to teach, how to teach and how to assess—tend to occupy teachers’ thinking.

I have mapped briefly here the scholarly terrain concerned with school knowledge. What follows is an examination of curriculum frameworks and pedagogical strategies that bear similarities to KPS work.

**Knowledge, curriculum and pedagogy**

The key idea underpinning the KPS is that students work on tasks or projects that have significance in the local community and they are supported by expertise or expert knowledge, more often than not, sourced from the local community.

My experience of KPS work drew me to a range of literature (Lingard, Ladwig, Mills, Hayes, et al., 2001; Newmann & Associates, 1996; Newmann, Marks, & Gamoran, 1995a) including the work of early education theorists (B. Bernstein, 1971; Dewey, 1921; Dollar & Rust, 1983; Huberman, 1973; Tyler, 1949; M. D. Young, 1971) in which it was possible to identify some of the elements of the ideas that inform KPS work. At times, I felt I was revisiting much of the recent history of education (Connell, 1980). I opted to trace what I saw as the ideas from these agendas that bore some relation to KPS work on the ground as I had come to understand it.
For instance, Scheurman and Newmann (1998) argue that authentic achievement includes the need for basic knowledge and the cultivation of practical intelligence in the construction of knowledge beyond the school. Skilbeck and Connell (2004) cite two examples of such approaches, including New Basics and Productive Pedagogies in Queensland and the system-wide K-10 Essential Learnings in Tasmania (p. 26). Like so much of curriculum reform in education in Australia, these developments have not enjoyed ongoing prominence. Both Queensland’s New Basics and Tasmania’s Essential Learnings no longer have pride of place in their states as schools focus on a transition to a national curriculum.

The Queensland Schools Longitudinal Study (2001) was a significant research study that presented a new approach known as productive pedagogies, which aimed to address the quality of teaching and student achievement in Queensland primary schools. The report concluded that primary schools are far better at social support—nurturing, behaviour management and pastoral care—than they are at providing appropriate levels of intellectual demand and connection to the world beyond the classroom. The study found that if “curriculum is relevant, connected to life, high in intellectual challenge and respectful of student difference” (Connor, 2002, p. 8) then students would be more engaged and able to self-regulate their learning (Lingard, Ladwig, Mills, Hayes, et al., 2001).

The Queensland longitudinal study built explicitly on prior international research, particularly that of authentic pedagogy and authentic achievement developed by Newmann et al. (1996) at the University of Wisconsin.

Newmann and Wehlage (1995) and Newmann et al. (1996) concluded in their research that, for successful school restructuring and reform, four key factors were essential: student learning, authentic pedagogy, school organisational capacity and external support. Their study’s vision for high-quality student learning or authentic student achievement included three parts:

1. construction of knowledge;

2. disciplined inquiry; and

3. value beyond school.

(Wehlage, Newmann, & Secada, 1996, pp. 24–27)
Newmann et al. (1996) describe construction of knowledge as an opportunity for students to do what adults do in various fields, that is, construct or produce knowledge. They suggest students should be involved in “guided practice in producing original conversation and writing, repairing and building of physical objects, or performing artistically” (p. 24). The main features of disciplined inquiry are “use of prior knowledge base, striving for in-depth understanding . . . and expressing one’s ideas and findings through elaborated communication” (p. 25). They describe the school tasks that have value beyond school as those that reflect aesthetic, utilitarian or personal value that is missing in tasks contrived for the “purpose of assessing knowledge (such as spelling quizzes or exams)” (p. 26) and where the end product is only seen by the teacher.

Further, Newmann and Wehlage (1995) argue that the vision for high-quality learning needs to translate into the classroom through authentic pedagogy, which they described as developing challenging thinking, in-depth understanding and academic learning through real-world problems. They state that authentic pedagogy improved achievements for all students, including achievements in standardised tests. The measure of authentic pedagogy consisted of four parts:

1. higher-order thinking;
2. depth of knowledge;
3. substantive conversation; and
4. connection to the world beyond the classroom.

Newmann and Wehlage’s (1995) measures of authentic achievement and authentic pedagogy directly relate to the Queensland longitudinal study’s (Lingard, Ladwig, Mills, Hayes, et al., 2001) four dimensions of productive pedagogies:

1. intellectual quality;
2. connectedness;
3. supportive classroom environment; and
4. recognition of difference.
The Queensland longitudinal study highlighted a need to focus on expanding teachers’ pedagogical repertoires in order to support them to maintain high expectations, while ensuring classrooms are nurturing and supportive. The study findings indicated that many mainstream teachers needed professional development and support in dealing with student diversity. The report indicated that, while all four dimensions are important, “there is a substantial research basis for believing that not every dimension is equally required for success for all socio-cultural groups” (Lingard, Ladwig, Mills, Hayes, et al., 2001, p. xv).

What follows is an examination of literature that informed the key ideas in both the Wisconsin and the Queensland studies. Interestingly, the ideas that led to the development of the KPS developed relatively independently of the ideas I have reviewed here (Bigum, 2011, pp. 52–53). All of these idea clusters interrelate but they appear to me as markers for the research I did. In particular, I want to examine how these elements inform my two points of focus: student engagement and what I have called learning partnerships.

**Intellectual quality**

The early self-fulfilling prophecy studies and studies of streaming and tracking (Oakes, Gamoran, & Page, 1992; Rist, 2000) show that one of the main reasons some students do not achieve high academic performance is that schools do not always require students to perform work of high intellectual quality. Further, Newmann et al. (1996) suggest that when students of all backgrounds are expected to perform work of high intellectual quality, overall student performance increases and equity gaps diminish, relative to conventional teaching practices.

Both Newmann et al.’s (1996) Wisconsin study and the Queensland longitudinal study outline the importance of pedagogy that focuses on developing intellectual quality. They suggest that pedagogy should focus on depth of knowledge around central ideas of a topic discipline or discourse; on depth of understanding, whereby students publicly demonstrate evidence of an understanding of deep knowledge; and on substantive conversation, whereby teachers facilitate talk that allows students to provide dialogue and conversation talk about topics and understandings rather than falling into typical short-answer and controlled interactions, such as the Initiate, Response, Evaluate (IRE) pattern (A. D. Edwards & Westgate, 1994; Freebody, Ludwig, & Gunn, 1995).
Being able to have substantive conversations is an important element in this pedagogy. John Marsden (2010) provides a good example of the style of conversation advocated by a Newmann-informed approach. The transcript can be found on Marsden’s school website in the section Tips for Students:

When you are talking to someone, give them information that they can work with.

**Bad conversation**:

*Sam*: What did you do at the weekend?
*Alex*: Not much.
*Sam*: Oh.

**Good conversation**:

*Sam*: What did you do at the weekend?
*Alex*: Not much. Went bowling.
*Sam*: Who with?
*Alex*: My cousins. I got three strikes in a row.
*Sam*: Is a strike where you knock down all ten at once?
*Alex*: Yeah, and a spare is nine with the first ball, and then the tenth with your next one.
*Sam*: Yeah, I went bowling last year. And I played it on Wii once….

Alex gives Sam a new piece of information each time. Now they have the basis of a conversation!

The transcript is a good example of Newmann’s notion of substantive or elaborated conversation. Language learners need to speak to practice and master language choices. Researchers argue that teachers need to rethink classroom talk interactions so that the IRE pattern is minimised. In Heath’s (1983) detailed ethnographic study of two different southern communities in the US, she found that children in Tracktown, “had no experience with answering why questions. [They] ask why questions but do not answer them with substantive conversation” (p. 109). Heath (1983) found that:

Patterns of using reading and writing in each community are interdependent with ways of using space (having bookshelves, decorating walls, displaying telephone numbers), and using time (bedtime, meal hours, and homework sessions). Habits of using the written word also develop as they help individuals fulfill self-perceived roles of caregiving and preparing children for school. . . . Neither community’s ways with the written word prepares it for the school way. (p. 234)
A key part of having substantive conversations is how school knowledge is understood. Lingard et al. (2001) and Newmann et al. (1996) describe problematic knowledge as that which is presented as socially constructed or negotiated. The alternative, knowledge as a given, is knowledge that is seen as fixed or static, non-negotiable facts. Coming to see knowledge as problematic involves an understanding that knowledge is not fixed, but rather constructed and hence subject to political, social and cultural influences. Webster (2007) argues that “thoughtfully reflecting on what the accumulated body of academic knowledge can bring to real world problems, generates sharper abstractions and helps students to ask the questions that will create deep and applicable knowledge” (p. 7).

Lingard et al. (2001, p. 6) suggest that curriculum theorists have been critical of the tendency of schools to present knowledge as unproblematic because it is at odds with most philosophical and sociological studies, and (even) with those of the production of scientific knowledge. They go on to argue that a sociological interest in problematic knowledge draws attention to the degree to which differing epistemological positions can be seen to have social impacts for different groups, such as women, Indigenous people or people from low socio-economic backgrounds. Holding such a position on knowledge can be empowering for marginalised or minority groups because it draws attention to the socio-political influences on the production of knowledge.

Seeing knowledge as problematic, then, is a key part of having quality conversations in the classroom—conversations that are beyond the usual IRE pattern. A number of research studies (A. D. Edwards & Westgate, 1994; Freebody et al., 1995; Gee, 1990; Nespor, 1998; Newmann & Associates, 1996; The New London Group, 1996) emphasise the importance of developing a pedagogy that facilitates what Newmann calls substantive conversation. Given the dominance of IRE conversations in many classrooms, it is important to draw attention to the centrality of teacher talk in scaffolding student activities, interactions, language and learning.

The term scaffolding is a familiar educational term. Scaffolding was a notion Wood, Bruner and Ross (1976) first used to describe the way parents successfully focused their children on the task at hand, while breaking the task up into manageable

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5 The intellectual tradition I draw chiefly on in the following chapter had its beginnings in studies of the production of scientific knowledge.
components and demonstrating successful performance. “The parents provided support through intervention that was tailored to the demands of the task, and determined the child’s ability to complete it” (Connor, 2002, p. 3). Teachers scaffold learning in a variety of ways in the classroom that enable temporary intervention and support to be given so that students are able to be challenged to go beyond what they had previously known. This is not a simple matter. If the demands are set too high, students experience failure, but if set too low, they experience boredom. Finding the right level or, in Vygotsky’s terms, zone is essential for good scaffolding.

The zone where new learning occurs is consistent with Vygotsky’s (1978b) notion of proximal development. Vygotsky argued that learning and cognitive development are culturally and socially based. He believed that learning is a sociocultural practice where communication enables knowledge to be shared and understood and where humans learn from one another, with particular emphasis on novice-to-expert interactions. The notion of scaffolding is underpinned by Vygotsky’s well-known theory of the zone of proximal development (ZPD). The ZPD is defined as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 33).

Vygotsky’s argument proposes a relationship between practical and abstract intellectual development. He claimed that where speech and practical activity converge intellectual development occurs. Vygotsky found that:

Children not only speak about what they are doing; their speech and action are part of one and the same complex psychological function, directed towards the solution of the problem at hand. . . . The more complex the action demanded by the situation and the less direct its solution, the greater the importance played by speech in the operation as a whole. . . . If not permitted to use it, young children cannot accomplish the given task. (pp. 25–26)

Vygotsky’s (1978b) contribution to thinking about learning makes an important connection between mediated activity (learning task), sign (instrument of psychology or thinking skills) and tool (systems of counting, writing schemes, diagrams, maps, speech) (pp. 53–54). Wells (1999) takes Vygotsky’s theory about the place of language in thinking and learning further. He suggests that, in addition to deliberate instruction and assistance from others who are physically present, learners may
benefit from symbolic artefacts such as written texts and mathematical formulae, and, as a result, the upper limits of the ZPD are extended.

Freebody, Ludwig, and Gunn (1995) found that many classrooms pay limited explicit attention to teaching children about how different texts work or to systemic deployment of a metalanguage for talking about reading and writing. They argue that this calls for more explicit pedagogies and high expectations for all students, regardless of their actual development levels. Vygotsky (1978b) sums up the point for teachers saying that “the notion of a zone of proximal development enables us to propound a new formula, namely that the only ‘good learning’ is that which is in advance of development” (p. 89).

Alongside research about how best to support learning is the more vexed issue of what is being learned and the relationship of the topic to the learner. This issue has been collapsed in the literature, under the catch-all term of relevance.

Relevance and its cousins

In a country with a diverse multicultural society, the relevance to the student of what is taught is an important issue. Researchers suggest that making issues and problems relevant to the world beyond school is important for cognition, curriculum design and school restructuring (Fullan, 2001; Rogoff, 1990). Making connections between what is being taught and the interests and experiences of a class of students that come from different backgrounds with different experiences is a challenge for many teachers. Depending upon the country lived in, the world beyond school is influenced by a large number of trends. Globalisation, ageing populations, the changing nature of work and employment opportunities, increasing mobility of some populations and the immobility of others, the impact of various new computing technologies and a shift away from manufacturing to knowledge and service economies have all been identified as contributing to a focus on the cradle-to-grave stance towards lifelong learning (Pendergast et al., 2005, p. 11). It is questionable how new such a shift is. Many religions have long valued lifelong pursuits of knowledge, and Muhammad is credited with coining the phrase “Seek knowledge from the cradle to grave”.

Locally, the Queensland Studies Authority (QSA) posits that a lifelong learner is:

- a knowledgeable person with deep thinking;
- a complex thinker;
- a creative person;
- an active investigator;
- an effective communicator;
- a participant in an interdependent world; and
- a reflective and self-directed learner.

(QSA 2002 as cited in Pendergast et al., 2005, p. 14)

Lawson, Askell-Williams, and Murray-Harvey (2006), in a review of extant research concerned with learning, argue that “because learning is a situated activity, in any analysis of learning and its outcomes, it is inappropriate to represent only the influence of the learner attributes and not to consider the characteristics of the situation” (p. 19).

Lawson et al. (2006) argue that the situation in which learning occurs is never neutral; others, such as teachers, parents or classmates, can work to support or discourage learners, and the availability of resources can illuminate or obscure key relationships. Achieving relevance for the learner has prompted researchers such as Newmann et al. (1996) and others involved in middle years of schooling research (Carrington, 2002) to support the notion of integrated curriculum knowledge and experiences. Here, explicit connections are made between two or more subject areas with a view to making clear relationships that otherwise may not have become apparent to the learner.

In cognitive approaches to instruction, learners are not assumed to be blank slates; instead, they are viewed as complex amalgams of cultural, linguistic and disciplinary knowledge. Through the 1980s and early 1990s, then, there was an extensive corpus of experimental and applied research that argued that learning occurs optimally when there are good links between students’ prior knowledge and the new knowledge...

Lankshear and Knobel (as cited in Lankshear, Gee, Knobel, & Searle, 1997) suggest that the two areas in which student work can make learning relevant and exhibit some degree of connectedness are:

a. a real-world public problem, such as applying statistical analysis in preparing a report to the city or town council on the homeless; and

b. students’ personal experiences, that is, the lesson focuses directly or builds upon students’ actual experiences or situations.

As a focus of curriculum development, relevance or connectedness has been defended as a valuable pedagogic strategy at least since the early twentieth century in the work of progressive educators such as Dewey (1921, 2004). He argues that the concept of teaching and learning based on community and intellectual projects is central to student learning. As Schneider and Garrison (2008), writing about Dewey and KPS, put it:

For him, mental functioning is never simply located; instead, it is distributed throughout what Tiles (1995) called “a world without within.” We do not have the space here to get into the intricacies of what this means for distributed cognition other than to say that, for Dewey, all meaning and value is potentially distributed. (p. 2211)

There is a large body of literature concerned with the notion of distributed cognition that has developed around the notion of activity theory (see, for example, Cole, Engestrom, & Vasquez, 1997; Cole & Griffin, 1987; Engestrom, 2005; Engestrom, Miettinen, & Punamäki, 1999). These ideas have provided a theoretical base for thinking about connectedness or relevance in the classroom. In the following chapter, I take another position, which offers an alternative take on the connectedness of people and things without making assumptions about what is going on in the mind. I turn now to the third of the four dimensions of productive pedagogies.

**Supportive classroom environment**

The longitudinal study (Lingard, Ladwig, Mills, Hayes, et al., 2001) outlined five items in the dimension of supportive classrooms: (1) social support for students’ achievement, (2) degree of students’ academic engagement, (3) degree of self-
regulation in on task behaviour, (4) degree of students’ control in determining their learning activities, and (5) degree of explicit criteria front-ended in lessons.

During a two-year study into cooperative learning situations, Stevens and Slavin (1995) found that all students, including both academically handicapped and academically gifted students, benefited from increased social support in classrooms. The study suggests that students were encouraged to learn when high expectations were established for all students. The other important elements that the study highlighted were an emphasis on mutual respect, an encouragement of risk-taking, and paying attention to quality ongoing teacher professional development. This point is endorsed by (Lingard, Ladwig, Mills, Hayes, et al., 2001) who argued that “a focus on high intellectual quality will not be a sufficient condition for improved student outcomes, especially for students from disadvantaged backgrounds” (p. 14).

Diversity has become the norm in the student population of most Australian communities and schools. Schools and education systems recognise that in order to ensure all students are well cared for and are able to get on with the main task of learning, there need to be clear proactive policy and practices in place that allow supportive environments to be established and maintained. With increasing diversity in classrooms comes a variety of problems for teachers, not the least of which is how best to manage things.

Reality therapy and choice theory control are two theories that underpin the philosophy behind many current school behaviour programs. Both reality therapy and control theory (Canter & Canter, 1976; Glasser, 1984) are based on students taking increasing responsibility for their own behaviour. The aim of encouraging students to act in this way is to minimise disruptions in the classroom. Many schools implement a range of similar approaches as part of what are called Responsible Behaviour Plans. These plans focus on a range of proactive and reactive measures aimed at ensuring curriculum rather than management is the focus of class time.

Responsible Behaviour Plans are developed through community consultation in order to create environments where students can learn and teachers can teach. The idea is that when environments are supportive and expectations are clearly negotiated and articulated, management talk will be minimised and curriculum talk will be maximised, thereby supporting learning. The approach also recognises that teacher
and school expectations and ways of doing things need to be made clear to students so that they understand the social practices within the education system.

Bernstein (1990) makes the distinction between implicit and explicit pedagogies, in part to differentiate between those progressive pedagogies that encourage ostensible exploration, discovery and construction and those traditional and behaviourist pedagogies that fix a priority on the goals, purpose and requisite activities for students (Lingard, Ladwig, Mills, Hayes, et al., 2001, p. 20).

There is much research (Freebody et al., 1995; Luke, 2000; Masters, 2004; Newmann & Associates, 1996; Seaton, 2002; The New London Group, 1996) to suggest that both implicit and explicit approaches are useful in pedagogy. More importantly, teachers need to understand the needs of their students and community context, and make informed choices about curriculum, pedagogy and assessment so that students are supported in ways that enable them to relate to the learning, to engage in intellectually challenging content and to make connections to the real-world applications of it.

**Recognition of difference**

Following state and territory governments’ agreed commitment to the Adelaide Declaration in 1999, Australian education systems came to a common and agreed set of goals for schooling. The declaration’s central tenets include the notion that all students should attain high standards of knowledge through a balanced curriculum that includes eight key learning or subject areas, that “school should be socially just” and free from any forms of discrimination, and that it should promote the development of talents and capacities of all students for life beyond school (Ministerial Council for Education, 1999).

The declaration promotes an inclusive education for all students, in the sense that it goes beyond earlier understandings of the term *inclusive education* in Australia, which referred mainly to the inclusion of students with special needs or disabilities. This notion of inclusion recognises the increasingly diverse nature of classrooms throughout Australia and values the contributions of all students regardless of “gender, language, culture and ethnicity, religion or disability; and of differences arising from socio-economic background or geographic location”.
Current research and policy in Australia regard inclusive education as the practice of ensuring that all students have equitable access, participation and achievement at school and that regardless of their differences they are part of the school and school community (Kraayenoord, 2007, p. 2). Newmann’s (1996) work suggests that establishing authentic pedagogy in a classroom can make a difference by ensuring differences are regarded positively and included in classroom culture. Kraayenoord’s (2007) paper also highlights the importance of differentiated instruction, which “comprises modifications to the curriculum, teaching structures, and teaching practices that take into account the individual differences and needs of students” (p. 390).

Classrooms that operate as communities of learners are characterised by high levels of cooperation and negotiation, between teacher and student and between student and student. Such practices are more likely to develop in classrooms where student difference in background and experience is valued (A. L. Brown & Campione, 1994).

A key element in the recognition of difference is the notion of active citizenship. Having active citizenship as a goal in itself can be argued to be important in the preparation of students for later life, but it is also seen as an important part of the solution for encouraging the valuing of difference in the classroom. There have been a number of recent curriculum projects and initiatives, such as Discovering Democracy (Hirst, 1998) and Education Queensland’s Active Citizenship online project, that aimed to get students involved in understanding and engaging with what it means to be part of a democratic society. The notion of these concepts is to help students recognise the rights and responsibilities of all individuals and groups in democratic societies to both create and recreate democratic practices within classrooms, schools and other organisations within our society. There are similarities between the promotion of active citizenship and transformative knowledge. The latter is seen as learning that either transforms students and allows them to do their best in a given set of circumstances, or impacts the community and can make the world a better place (The New London Group, 1996).

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6 Valuing difference is an argument made eloquently by Cathy Davidson (2011) in a recent book.
Knowledge producing pedagogy

Pedagogy of any kind produces knowledge. It can be knowledge about how to *do school*, how to cope with a particular teacher, how to make use of a local set of resources and so on. Much of this knowledge has the social character that I reviewed earlier. These kinds of knowledge are also likely to be valuable to others. Further, they are forms of knowledge that are part of a large and implicit undergrowth of schooling. Knowledge of this kind is not my explicit focus, although, as we will see, these forms of less acknowledged knowledge form part of the matrix of practices that appear to be made more visible by KPS work.

There is no doubt that all kinds of new knowledge were produced in the various curriculum reforms that took place prior to or during the research reported in this folio. For example, Queensland’s New Basics framework was an all-encompassing reform that was described as a set of futures-oriented categories for organising curriculum. It drew selectively upon both traditional and modern knowledge categories, for example, disciplines, subjects, Key Learning Areas (KLAs), themes, topics and issues. Productive pedagogies were an integral part of the implementation of this curriculum reform. Productive pedagogies were also introduced to teachers outside the New Basics trial and remain one of the pedagogical frameworks still in place within the more traditional KLA curriculum (Queensland Studies Authority, 2007). It was in this mix of curriculum reforms that the KPS work I studied took place.

What follows is in two parts. I first consider a sample of experiments or ways of doing school differently (Bigum, 2012). Many of these have elements in common with KPS work. What is interesting is the proliferation of experiments of this kind, some large, some relatively small, that began to occur in a roughly similar time frame. Like KPS work, these various explorations appear located at the edges of what might be regarded as mainstream schooling but have strong articulations with the classroom. Many of them are designed to augment, fit in or complement what goes on in the classroom. The second part of this section looks at the small literature that offers what might be regarded as a scholarly commentary on KPS work.

Pedagogy and knowledge production

One of the common elements in the brief descriptions of the developments that follow is the account of their *origins*. Each case has a number of KPS-like elements
to which I draw attention. While there is little formal literature that documents the work of the first two, I have included them here in the sense that there are detailed published accounts of their origins and modes of operation that have not yet appeared in the scholarly literature.

The first two appear to have something of what Johansson (2012) calls the *click moment* about them. Unlike a planned curriculum initiative, as described in the third example, these developments emerged from particular sets of circumstances coming together and someone taking a decision to act on an opportunity. How this work emerges is an important and largely underdescribed aspect of KPS work. The unplanned, almost accidental nature of these cases will become what I will argue is an almost necessary characteristic of KPS work: that to achieve community engagement of the kind that generates KPS outcomes, a number of circumstances over which a single person does not have control are brought together.

**826 National**

826 National\(^7\) began as 826 Valencia, an after-school facility that offers secondary age students the opportunity to work one on one with experienced writers. Conceived as a homework help system for disadvantaged students by Nínive Calegari and Dave Eggers,\(^8\) it has morphed into a kind of literary production house in which school students are authors of a wide variety of published texts supported by practising writers from various backgrounds, including journalists, editors, poets and documentary filmmakers.

826 Valencia runs San Francisco’s only Pirate Supply Store. When Eggers and Calegari were looking for a location in which to establish a site to provide after-school support, the building they located was zoned for retail so they had to establish a business as a front for their tutoring/support centre. What began as a support for students struggling with writing has turned into a national network of similar centres that produce and publish the written work of students.

Access to the expertise of practitioners is a crucial part of ensuring that the expectations of students are of a different order than what might be experienced in a

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7 [http://826national.org/](http://826national.org/)

8 An entertaining account of the history of 826 National is recounted by Eggers in a 2008 TED talk, [http://www.ted.com/talks/dave_eggers_makes_his_ted_prize_wish_once_upon_a_school.html](http://www.ted.com/talks/dave_eggers_makes_his_ted_prize_wish_once_upon_a_school.html)
classroom. Their products have value and are valued (826 National, 2011). There appear to be no formal research studies of this work, so the link between pedagogy, what is happening at the back of the Pirate Supply Store, and the appearance of published student work is difficult to discern.

The Khan Academy

In August 2004, Sal Khan began remotely tutoring his cousin, Nadia, who was struggling with “unit conversion”. This “swiss-cheese” gap in her knowledge was not allowing her to be placed in the more advanced Math track. Since Nadia was in New Orleans and Sal was in Boston working at a hedge fund at that time, Sal started tutoring her via telephone and Yahoo Doodle after work. As Nadia improved in math class, Sal began tutoring her brothers Arman and Ali. Eventually, word got around and he was tutoring a handful of his cousins and family members. Scheduling became a real issue and Sal started recording videos and posting them on YouTube in 2006 so everyone could watch on their own. More and more people kept watching, and Sal has continued to make videos ever since.

(The Khan Academy, nd)

Salman Khan, a financial analyst, turned family-oriented tutoring work into an instructional system with global reach. From small, accidental beginnings, the Khan Academy is now supported by a number of philanthropic foundations. The screencasts are being translated into a variety of languages. The website\(^9\) hosts over 4,000 screen casts and was reported\(^10\) to have 3.5 million users per month in 2011.

I have included this development mainly because of the happenstance of its development and, more importantly, its mode of knowledge production. While Khan drew on his background in mathematics and engineering to make the initial screen casts about science and mathematics, with content that is new to him, he gives himself a crash course in the topic:

In a recent talk he explained how he prepared for his lecture on entropy: “I took two weeks off and I just pondered it, and I called every professor and everyone I could talk to and I said, Let’s go have a glass of wine about entropy. After about two weeks it clicked in my brain, and I said, now I’m willing to make a video about entropy.” (J. R. Young, 2010, para. 8)

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9 [https://www.khanacademy.org/](https://www.khanacademy.org/)
Khan argues that occasional mistakes are part of his method. The mistakes engage students in contributing to making improvements to particular screencasts. This is almost a form of crowd-sourced knowledge production (Albors, Ramos, & Hervas, 2008). There is no published research about this work, but it is another fragment of school-related knowledge work that has helped inform my thinking about KPS work.

There are, of course, many examples from conventional classrooms in which project/problem-based learning occurs. There is an important distinction to be made here between projects or problems for which the teacher has a solution, or at least a familiar approach to tackle the problem or project. It is the instances in which there is no obvious or ideal solution that present opportunities for a pedagogy that produces useful knowledge.

**Special forever**

Knobel and Lankshear (2003) describe a series of integrated units developed by primary school teachers in Victoria that address “real environmental issues” and are significant in that the “teaching and learning promote classroom engagement with mature social practice . . . [where the learning process moves] well beyond conventional master-apprentice or teacher-student models of learning to encourage teachers to construct their classrooms as communities of learning and practice” (p. 1).

Here there is an important nuance of the term *real*: the fidelity to mature or insider forms of social practices. Coupled to Lave and Wenger’s (1991a) now well-known notion of communities of practice, the argument links to a key idea of Moore and Young (2001) that I mapped above, which is their fourth point about a social realist approach to curriculum: “reorienting debates about standards and knowledge in the curriculum from attempts to specify learning outcomes and extend testing to the role of specialist communities, networks and codes of practice” (p. 459).

Knobel and Lankshear (2003) concur with Rogoff’s (1995) conception of the “cultural apprentice” as a useful guide to understanding how effective authentic learning occurs in social contexts, groups or institutions. Rogoff (1995) describes three developmental processes associated with what she terms three planes of analysis, which she deploys for observing sociocultural activity: (1) apprenticeship, (2) guided participatory and (3) participatory appropriation. For Rogoff (1995):
The metaphor of apprenticeship provides a model in the plane of community activity, involving active individuals participating with others in culturally organized activity that has as part of its purpose the development of mature participation in the activity by the less experienced people. This metaphor extends the idea of craft apprenticeship to include participation in any other culturally organized activity, such as other kinds of work, schooling, and family relations. The idea of apprenticeship necessarily focuses attention on the specific nature of the activity involved, as well as on its relation to practices and institutions of the community in which it occurs—economic, political, spiritual, and material. (p. 142)

An illustration of Rogoff’s notion of apprenticeship given by Knobel and Lankshear (2003) was that of a group of students working collaboratively with their local town planners to design and construct a model of a town that takes into account the environmental issues as outlined by an organisation such as the World Wildlife Fund.

Rogoff’s guided participation refers to learning through a range of social interactions, including face to face, side by side, and other arrangements that do not even require learners and experts to be in the same physical location. Knobel and Lankshear (2003) describe examples of this dimension being evident in a range of learning where students were:

- engaged in data-gathering activities such as documenting their family’s water or petrol use. These activities involve different community members as co-learners and experts in a range of interactions, including student-led interviews, side-by-side interactions between the teacher and collaborative groups, email communications with peers and experts, and so on. (p. 1)

The internet these days provides plenty of examples of this kind of learning. Another illustration is an unpublished account from a KPS school in Toowoomba. A class of students became interested in Indigenous star signs. They decided they needed to build telescopes to map these star patterns. No one in the school had any expertise in telescope construction or astronomy. The students were able to source support from a variety of people. The students ended up precision grinding lenses and running astronomy evenings for primary schools. Astronomy has an interesting and productive history of nurturing amateur–professional relationships (Leadbeater, 2007; Leadbeater & Miller, 2004).
The final dimension, participatory appropriation,

is that, through participation, people change and in the process become prepared to engage in subsequent similar activities. By engaging in an activity, participating in its meaning, people necessarily make ongoing contributions (whether in concrete actions or in stretching to understand the actions and ideas of others). Hence, participation is itself the process of appropriation. (p. 150)

Thus learners, as Knobel and Lankshear (2003) argue, can become increasingly independent, if not expert participants in the activity being mastered (Knobel & Lankshear, 2003). They offer the illustration of student involvement in a salinity project, in which students learn about the issue, gather data, produce their own school report for the local community, as well as provide further information to government and environmental groups to help address the issue.

Knobel and Lankshear’s examples come from integrated units of work developed during the Special Forever environmental project, a partnership between the Murray-Darling Basin Commission and the Primary English Teaching Association (Eastburn, 2002). Knobel and Lankshear describe three themes underpinning the work: (1) learning strategies rather than a fixed content, (2) active citizenship and (3) future orientation. They argue that the problem-solving approach underpinning the work in these projects is focused on strategies and processes associated with knowledge production, as opposed to item knowledge. They go on to posit that, in the information age, in which content rapidly becomes outdated as new information is discovered and shared, it is even more important that we teach students the skills to research information and to sift “critically through useful information, misinformation (incorrect, outdated or incomplete information), disinformation (deliberately misleading information) and useless information” (p. 2). The development of transferable higher-order thinking skills and processes is encouraged through the cross-curricula nature of the units in the Special Forever project. Knobel and Lankshear (2003) point here to the importance of students being involved in producing a range of texts, such as 3D models, dramatisations and thank-you letters, for a range of social purposes. They argue that it is this purposeful match between these text types and purposes that enables the students to make meaningful connections in learning.
A theme that often underpins these arguments is a gesture to the future: knowledge or information societies. Here flexibility, adaptability and permanent learning are highly valued (Beck, 1992; Giddens, 1991a, 1991b; Glastra, Hake, & Schedler, 2004). Knobel and Lankshear (2003) argue that this is equally important for students now so that they are equipped to “obtain and process information in order to produce useful . . . knowledge and ongoing transformative action” (p. 3).

Related to these broad claims, Bigum (2002c), in making a case for KPS in the context of community informatics, argues:

> The one thing that a community can and will need to have more expertise in is knowledge about itself. In a world which appears destined to be increasingly shaped by financial and information forces which operate globally, having a rich source of knowledge about itself will provide a local community with a strong basis from which to read and act on the global influences that it encounters. In other words, the production, accumulation, and dissemination of local knowledge will become increasingly more valuable to communities. (p. 212)

**Writing about KPS**

What has been published represents a sample of the work that has actually occurred in schools. Since the notion was first mooted (Bigum, 1997), there have been publications about KPS specifically and publications that derive from locating KPS work in existing fields of interest. The publications that report KPS work contain detail of particular projects and the community relationships that were drawn on. There are, however, gaps in the accounts that I hope my work will help fill. While it is the case that this work arises incidentally in schools, there is little detail about how opportunities are recognised and acted upon. There is also very little detail about the kinds of negotiations that occur between the students working on a project and the expertise from the community. Given the dominance of planned activity in schools, it is important to explore and examine these aspects of KPS work.

What is interesting about KPS literature is how it has spread into a range of other educational fields of interest and been picked up because some of the ideas appear to resonate with ideas from these fields. For instance, in publications concerned with literacies, old and new, there is now a suite of papers: (Lankshear & Knobel, 2003a, 2003b, 2006a, 2006b, 2007; Rantala & Korhonen, 2008; Snyder, 2010). The other fields in which KPS work has been used include teacher education (Johnson, 2007),
community informatics (Bigum, 2004); (New Zealand Transport Agency, 2012),
school-university partnerships (Rowan & Bigum, 2010a, 2010b), action research
(Bigum & Rowan, 2009), teaching IT in schools (M. Brown, 2008) and
cyberbullying (Shariff, 2008).

The literature that is directly concerned with accounts of KPS work includes (Bigum,
2002a, 2002, August, 2004; Bigum & Rowan, 2009; Lankshear, 2003; Marshman,
2012, July; McGrath & Rowan, 2012; Rowan & Bigum, 2005, 2010a). As I have
argued, this literature reports the main elements of KPS work from a variety of
settings. There is not a great deal of detail about the specificities of projects. The
research relies upon artefacts that were produced in each project and post-project
interviews with students and teachers. It is here that I hope my research can help fill
in some of the missing detail about the workings of a KPS.

The other point to be made here is to note the work by Sandra Schneider (2006),
whose PhD examined KPS work from a Deweyan perspective. A publication from
that work (Schneider & Garrison, 2008) elaborates Dewey’s arguments about
knowledge and argues that Dewey needs to be seen as an ally of KPS work. The
authors focus on an epistemological argument made by Lankshear, Peters, and
Knobel (2000), who posit that:

The broad epistemological model which has dominated school education
since its inception has been the standard view of knowledge which has
dominated Western thought since the time of Plato. This is widely known as
the “justified true belief” model. According to this epistemology, for A (a
person, knower) to know that p (a proposition), A must believe that p, p must
be true, and A must be justified in believing that p. (see, for example,
Scheffler, 1965). (p. 35)

Schneider and Garrison (2008) examine these claims and their consequences from a
Deweyan perspective:

Dewey is committed to what is often called “maker’s knowledge”—that is, to
know something is to have produced it. Knowing is, for Dewey as for the
KPS scholars, a creative activity. Likewise, Dewey’s notion of truth involves
carrying out concrete, existential operations. It is a view of learning, making,
and knowing that should be quite attractive to advocates of KPS. (pp. 214–
215)

This was an important elaboration for my thinking about KPS work, a useful means
to separate knowing that (the highly valued mode of knowing that can be observed in
many classrooms) from knowing how (maker’s knowledge) and knowing why (knowing why something is the way that it is, explanatory knowledge).

The other significant contribution to my thinking was the articulation of Dewey’s notions of performativity developed by Lankshear et al. (2000):

This rethinking might conceive of epistemology in social terms as practices of knowing that reflect a range of strategies for “assembling”, “editing”, “processing”, “receiving”, “sending”, and “working on” information and data to transform “data” into “knowledge”. We might think here of Ludwig Wittgenstein’s (1953) “performative” epistemology, an epistemology of performance—“Now I know how to go on!” (Wittgenstein, 1953, p. 105)—that conceives knowing as making, doing and acting. This account is based on the relation of knowing to the “mastery of a technique”. Such a view of performance epistemology might be usefully applied to a range of emergent practices. (p. 21)

I will develop notions of performativity that I drew on in my research in the following chapter.

**Student engagement**

The term *engagement* or *engaged* is often used in education fields to describe the ways students behave, feel and think about school. Fredericks, Blumenfeld, Friedel, and Paris (2005) argue that concerns about engagement, disengagement, alienation, dropping out or re-engagement are often used in relation to students *at risk*, and in education terms, this generally equates to those students whose home backgrounds are at a mismatch between home ways and school ways. These mismatches are generally manifested behaviourally, emotionally and cognitively. Zyngier (2008) points out that, although engagement has been a major focus in education since the 1990s, a long tradition of work, from Dewey to Friere, has been concerned with connecting student learning and engagement. Further, for much of the twentieth century, motivational theory in education has been influenced by behaviourism.

Although there is an enormous amount of literature on engagement and its associated terms, there is also a range of perspectives about what it is and what it is not, and how the issues related to curricular and pedagogy have been researched to date. Constructions of engagement include individual and social perspectives, as well as more recent suggestions that an interaction between the two could lead to a more productive conceptualisation of engagement (Atweh, Bland, Carrington, &
Cavanagh, 2007). Throughout this section, I will also explore a range of work that looks at defining engagement (and disengagement), exploring its construction and looking for ways to address the issues related to it.

Earlier in the twentieth century, Skinner’s (1953) theory of operant conditioning, which recognised the importance of reinforcement of positive behaviours and punishment for decreasing undesirable behaviours, was a major influence in educational practice. In later times, the limitations of practices purely focused on behaviour became obvious, and the importance of cognitive and social components emerged. From this point, a number of theoretical perspectives grew (Elliot, Hufton, Willis, & Illushin, 1998).

Debates about how to theorise motivation led to a distinction being made between intrinsic and extrinsic reinforcements. Deci and Ryan’s (1985) self-determination theory distinguishes between the two kinds of motivation. They argue that when students engage in a task primarily for enjoyment and fulfilment, the motivation is intrinsic, and when the engagement is primarily done for reward or to avoid punishment, the reinforcement or motivation is extrinsic.

Ryan and Deci (2000) also describe a number of types of extrinsic motivation that include “externally imposed and reinforced forms of regulation . . . to more autonomous forms . . . where the individual identifies with the personal importance of specific behaviours and perceives them as congruent with their wider value system” (pp. 226–267) of which the latter is more closely aligned to superior engagement and learning. Self-determination theory is therefore characterised by two key points: relatedness and perceived competence. This means that learners feel a sense of belonging in relating to the task and others in learning, and the individual has a strong sense of self-efficacy.

Weiner’s (1985) attribution theory offers his reasoning behind achievement motivation. Weiner’s model outlines that outcomes are determined by both environmental (external factors such as social norms) and personal (internal factors such as self-belief) factors. He places these attributes in three dimensions: stability (how stable the activity is, e.g. intelligence is relatively stable but work rates can vary), locus (determines to what extent the attribution is internal or external to the individual) and controllability (factors amenable to an individual’s control).
The model Weiner (1985) describes provides reasons why students may behave, feel and think in certain ways following a learning outcome. For example, an intelligent student who has not worked hard for an exam but is passionate about the subject and knows it is important for her preferred career choice is surprised to find that the exam is multiple choice. When the results come back, the student has done very well. She is surprised but pleased and a little relieved. The fact that the student was intelligent and saw the personal significance of the exam in the overall study of the subject meant that she had an intrinsic motivation towards the activity. That she had not studied and yet did well could be viewed as luck or relief, or a bit of both. All in all, attribution theory “helps us understand why certain outcomes might influence the [person’s] willingness to increase or decrease their efforts” over time (Elliot et al., 1998, p. 18). Obviously, the outcome could have been either positive or negative. The negative may have led to negative psychological consequences, such as feelings of anger, frustration, pity and guilt. The resultant behaviour may have also then been less favourable but a one-off for the student described in the example above. However, when this type of outcome and behaviour becomes a repeated pattern of failure, issues such as poor behaviour, disengagement and withdrawal are likely to occur. Weiner’s model also suggests that the stability dimension was the best indicator of success expectancy, locus is closely related to self-esteem, and self-efficacy and controllability are most strongly tied to our social emotions.

Goal orientation theory was designed to gain greater insight into what motivated different individuals to achieve, to understand their means of getting there and reasons for successes or failures (Molden & Dweck, 2000). There are two main types of goal or target that theorist Pintrich (2003) describes: (1) task-specific goals, mastery goals or targets; and (2) purpose goals or goal orientations. The latter, which is concerned with more general, overarching goals, is of most interest to achievement motivational theorists. However, despite a wealth of empirical data, theorists acknowledge that educational reform based on achievement goal theory is premature. It would, however, confirm that for high performers the “performance—bigger picture” goals work in positive ways, as shown by, for example, the outcomes of standardised tests when data are published on websites or in league tables where students are compared against peers and “like groups”. This is not the case for lower achievers or students who were driven by “performance-avoid” goals. These students are more concerned about not doing less well than their peers because of how they...
will be perceived by important others including parents, teachers and classmates. “Researchers have repeatedly shown that people’s basic achievement-relevant theories can dramatically affect their persistence and performance” (Molden & Dwek, 2006, p. 196).

Gardner (1961) asserts that, in Western society, human value is linked to competition among others and, therefore, one’s ability becomes linked to perception of self-worth. Self-worth theory bears similarities to attribution theory in this way; for example, if students perform poorly, they may experience feelings of sadness, shame or embarrassment, perceive themselves as poor performers and have a diminished sense of self-worth. Theorists (Covington, 1992; Grant & Dweck, 2001; Thompson, 1999) suggest that achievement rather than effort, in Western society, has the greater positive impact on the individual’s sense of self-worth. Elliot et al. (1998) concurred with Covington (1992) in stating that “to maximise the impression that ability has been instrumental in gaining a successful outcome, the individual may seek to play down the amount of work they have undertaken” (p. 23). Fear of failure related to ability is evident in many forms and for many reasons.

In order to preserve self-worth, students may act out in a number of ways (Covington, 1992). Some students self-handicap, so they adopt a strategy to identify a possible handicap, real or imagined, that might explain future possible failure, such as the student who mentions his “hurt ankle” before a race on competition day. Other strategies, including procrastination or intentional low work rate, help the student explain or justify poor outcomes with performance rather than ability. However, as effort is also seen as commendable, the result of not trying will also often bring on the two feelings associated with shame: humiliation and guilt. Covington suggests that students struggle between trying too hard and risking low achievement with the result of appearing to be a failure and the strategy of avoiding or low effort and then justifying low ability but subsequently feeling bad. As Elliot et al. (2005) citing Thompson (1999) attest:

Ultimately, such strategies are doomed to failure; students are increasingly cut off from rewarding classroom experiences, external attributions for failure become less convincing, and ultimately students have little option but to attribute their lack of success to low ability. This results in the student feeling incompetent, hopeless, angry and emotionally burnt-out. (p. 25)
In the current education system, where externally imposed accountabilities such as national testing and comparative data across like schools are the norm, it is unlikely that a “strategy of intensification” (Covington, 1992, p. 17) will do anything to improve student self-worth and engagement with learning for students who are already performing below “standard”.

Students who are regarded as having a lack of engagement with learning and the education system can show some of these characteristics: poor behaviour, a lack of interest in learning, having low achievement, having potential and failing to show it, becoming early school leavers, and showing patterns of absenteeism or mobility.

School retention to Year 12 or equivalent is still one of Education Queensland’s (Queensland Government, 2005) top two objectives, which reinforces the level of concern about what is happening and not happening regarding engagement with education. There are a disproportionate number of low-achieving students, who are often working-class boys, Indigenous children or from low socio-economic status families. Researchers such as Apple and Beane (1999) and Teese and Polesel (2003) argue that not only do some of these students leave school early in order to work but many also fail to see the relevance of school.

Finn (1989) and Guthrie (1996) define engagement in terms of behaviouralism-based frameworks. Guthrie’s work on engagement in literacy describes the importance of students becoming genuinely interested, involved and curious about reading in order that these attributes become internal goals for reading for the individual. “When children internalise a variety of personal goals for literacy activity . . . they become self-determining” (Guthrie, 1996, p. 433). He argues that when students undertake the reading for no other reason than an external motivation, such as the reading being teacher-driven or assignment-driven, the behaviours will not be sustained. “Intrinsic motivations such as involvement and curiosity, and social exchange lead students to understand the substance deeply and to use newfound knowledge to solve problems in the topical area” (Guthrie, Van Meter, McCann, & Wigfield, 1996, p. 319).

Guthrie (1996) points out that students need both cognitive and conceptual strategies to become highly competent literacy users in today’s world. Students need to learn cognitive strategies, including letter-sound recognition, summarising texts, searching for information, applying prior knowledge to text and generating inferences, if they are to develop deep conceptual understanding. However, he believes that “because
cognitive strategies are difficult to acquire, children must be motivated to learn them” (Guthrie, 1996, p. 434). He goes on to argue that literate learners are engaged learners who interact with a range of people, gaining long-term benefits, including a sense of belonging to a group, improved sense of self-determination, and an increased variety of social patterns of communication, which in turn broaden literacy engagement (Guthrie, Schafer, Wang, & Afflerbach, 1995; Heath, 1991; E. A. Skinner & Belmont, 1993).

Finn (1989) explained reasons for school drop-out under two models, the frustration-self-esteem model and the participation-identification model. In the first model, Bernstein and Rulo (1976) and Bloom (1976) detail the importance of student self-view, which is realised as self-esteem, self-concept, academic self-concept or personal agency beliefs. It is argued that with ongoing and sustained poor performance, students may exhibit increasingly poor behaviour and lack the self-belief and motivation to engage with learning.

Finn (1989) suggests that students who lack motivation, seeing goals as unattainable and experiencing continued frustration in learning, might develop a “perception of self as ineffective and powerless” (p. 120). In this model, blame is attributed to schools and students for undiagnosed learning problems and irresponsible behaviours. There is little offered about how to get to the heart of the issue. Some suggestions for addressing the poor performance and self-esteem issues include “separate schools for at-risk youngsters, revised disciplinary procedures, curricula tailored to the needs of these students, positive teacher attitudes, and teaching practices that involved students in the learning process more than traditional approaches” (p. 122).

Finn’s (1989) participation-identification model describes the role of both participation, as the behavioural component, and identification, as the affective component, as an alternative proposition to dropping out. Finn suggests that students who have positive experiences of identifying with school develop “an internalised sense of belonging” and “value success in school-related goals” (Finn, 1989, p. 123). Newmann’s (1981) study in US high schools found that student involvement and engagement was necessary for learning. The study proposed six guidelines for reducing the disengagement or alienation of students, including voluntary
participation in policy decisions and management, extended and cooperative relationships with school staff, and work that is meaningful to the student.

Finn (1989) suggests that by conceptualising participation (behavioural) and identification (emotional) separately, there is an ability for schools to develop different ways of addressing each. He argues that by increasing participation in school there is also an opportunity to increase levels of identification with learning and with school. This would range from minimal participation in activities, such as arrival at school and class on time, being prepared, attending to the teacher and responding to teacher-initiated directions or questions, through to more higher level participation in extracurricular activities and showing an enthusiasm for subject-related clubs or community activities, sporting pursuits, social events and student involvement in negotiating curriculum, academic goals setting and regulating the school’s disciplinary system (Atweh et al., 2007; Ekstrom, Goertz, Pollack, & Rock, 1986; Fullarton, 2002; K. C. Reid, 1981; Schafer & Polk, 1972; Wehlage & Rutter, 1986).

Finn’s (1989) notion of participation included the observation that students who were compliant may not necessarily be actively involved. They may simply be “playing the game”. This notion was taken up by Haberman (1991), who explores the interplay of poverty and pedagogy. He develops four concepts that underpin a notion of “pedagogy of poverty”:

1. Teachers teach and students learn. Therefore, they are engaged in two different activities.

2. Teachers are in charge and responsible. Students still need to develop. Therefore, when students follow teachers’ directions, appropriate behaviour is being taught and learned.

3. Students represent a wide range of individual differences. Ranking is inevitable; some students will end up at the bottom and others will finish at the top.

4. Basic skills are a prerequisite for learning and living. Students are not necessarily interested in basic skills. Therefore, directive pedagogy must be used to ensure learning occurs.
Haberman argues that this pedagogy of poverty does not work. He points to the position that many reformers adopt: that there is a need to raise expectations above an emphasis on basic skills to teaching more critical thinking, problem-solving and even creativity. This position is supported by Finn’s (1989) participation-identification model discussed earlier. The alternative, Haberman (1991) suggests, is about less teacher control and more indirect activities that often involve the creation of a learning environment where teaching behaviours are more evident in what students are doing and less about the observable actions of the teacher. He argues that there are a number of characteristics that can be called good teaching:

1. whenever students are involved in issues they regard as vital;
2. whenever students are involved with explanations of human differences;
3. whenever students are being helped to see major concepts, big ideas and general principles, rather than being engaged in learning isolated facts;
4. whenever students are involved in planning what they will be doing;
5. whenever students are involved in applying ideals of fairness, equity or justice to their world;
6. whenever students are actively involved;
7. whenever students are directly involved in real-life experience;
8. whenever students are actively involved in heterogeneous groups;
9. whenever students are asked to think about an idea in a way that questions common sense or a widely accepted assumption, that relates new ideas to ones learned previously, or that applies an idea to the problems of living;
10. whenever students are involved in redoing, polishing or perfecting their work;
11. whenever teachers involve students in technology of information access;
12. whenever students are involved in reflecting on their own lives and how they
have come to believe and feel as they do.

(Haberman, 1991, pp. 293–295)

Zyngier (2008) takes Haberman’s suggestions about good teaching further and
argues for a critical-transformative engagement which “perceives student
engagement as rethinking experiences and interests increasing in communal and
social terms for the creation of a more just and democratic community and not just
the advancement of the individual” (Haberman, 1991, p. 1772).

These ideas resonate with arguments made by many scholars (Freebody et al., 1995;
Fullarton, 2002; Haberman, 1991; Heath, 1983; Lankshear & Knobel, 2006b;
Lingard, Ladwig, Mills, Hayes, et al., 2001; Munns & Woodward, 2006; Newmann
& Associates, 1996; Vibert & Shields, 2003; Zyngier, 2008), who agree that all
schools can deliver a curriculum and pedagogy in which all students are able to
engage successfully, regardless of background, socio-economic status, race, gender
or ethnicity.

Much of the research into the middle years of schooling (Carrington, 2002;
Cumming & Cormack, 1996; Cushman, 2003; Freebody et al., 1995; Fullarton, 2002;
Hill, Comber, Louden, Rivalland, & Reid, 2002; Jeanneret, 2009; Kraayenoord,
2007) has highlighted a lack of student engagement with learning, school and
education. For my purposes, the terms middle phase or middle years are used
interchangeably and refer to the years encompassing middle to upper primary and
lower secondary years, which typically includes students aged approximately 8–13
years of age. The reform literature has long attested to the fundamental importance of
student engagement as a motivator for learning, and student disengagement and
alienation from learning as being key symptoms of failure in the design and
implementation of learning programs (Pendergast et al., 2005, p. 58).

The research of Pendergast et al. (2005) points to a need to raise the bar with respect
to intellectual rigour in curriculum, and for sustained engagement, pleasure and
satisfaction to be derived from learning that connects to things that matter in the
world of students. A lack of fun and challenge also came out in responses from the
Queensland public in consultation about the middle phase of schooling in 2004
(Queensland Government, 2004). A similar argument is made by Herzberg (1988) in
his discussion of motivation in the workplace. He points out that motivation as opposed to compliance or movement, as he terms it, is an intrinsic reward that builds personal growth from interesting and challenging work.

As part of the Education Queensland’s (2004) middle phase consultation, the public were invited to respond to a range of issues about curriculum and pedagogy. In response to questions of curriculum, teaching and assessment, two themes were identified. One was about the importance of students learning generic skills and attributes, which relates to those of lifelong learner attributes, as I discussed above in the subsection, Relevance, and in the section labelled, School Knowledge. The second theme included respondents stating the importance of learning literacy, numeracy and information and communication skills as the foundation for all other learning in these years. A further interesting point is that, although the questionnaire surveyed people about what students should learn, many of the respondents wrote about issues relating to engagement of students with their learning. Suggestions were made about giving students a voice in what and how they learn; for learning that relates to the real world; for a greater connection between academic and social arenas; and for greater independence and challenges in student learning (Queensland Government, 2004, p. 3).

Zyngier (2008) argues that students are often left out of the discourse on student engagement and then objectified in the discussion. He suggests that giving voice to students means implementing a pedagogy in which teachers connect with the real life of all students, in particular, those of disadvantaged and minority backgrounds (Zyngier, 2005).

Zyngier (2008) asserts that if we are to create a more inclusive and empowering education system, schools will need to engage with and respond to marginalised youth and ensure that all students connect critically with the social and cultural backgrounds from which they come. He cites Sefa Dei (2003) to argue that to do this schools must “tap into the cultural knowledge of parents, guardians and community workers—this means that we value the different perspectives and knowledges that all people from all places have and can bring into the school system” (Zyngier, 2008, p. 1774).

Cushman’s research into student–teacher partnerships and student engagement in the middle school suggests that, in learning, adolescents need to enter into meaningful
partnerships with adults (Cushman, 2003, p. 2). His research suggests that addressing this developmental need in school sites can have significantly positive effects on students’ motivation, engagement and academic achievement. Cushman (2003) grouped his research findings into four themes:

1. personal connections to the teacher;
2. expectations and motivation;
3. learning inside the classroom and out; and
4. classroom climate and management. (p. 5)

Personal connections relates to a student’s feeling of being respected and engaged in the classroom. Expectations and motivation groups notions of self-understanding and higher-order thinking. Learning inside the classroom and out relates to uncovering the range of learning networks that help students build confidence as independent learners. His final theme, classroom climate and management, points to the importance of understanding and problematising the rules, routines and reasons why the classroom runs the way it does. There are obvious links between these themes and the dimensions and measure of both the Queensland productive pedagogies (Lingard, Ladwig, Mills, Hayes, et al., 2001) and Newmann et al.’s (1996) authentic pedagogies. All are focused on (1) valuing and responding to differences among participants in learning, including students and teachers; (2) ensuring high expectations and quality learning experiences for all students; and (3) learning that is a cross-over between traditional subject content and applications of its production within other social, cultural or historical contexts.

Motivation to learn has been a thread through most of the literature concerned with curriculum and pedagogy that I have read. The New London Group (1996) argue that to learn well people need to be motivated and have a belief that they will be able to use and function with what they are learning in some way and that it is in their interest to do so. Zyngier (2008, p. 1765) cites Newmann (1986) to posit that “engagement is difficult to define operationally, but we know it when we see it and we know it when its missing.”

Knapp and Shields (1990) are more certain when it comes to children in poverty. They argue that:
Children of poverty are especially prone to experience the adverse effects of the skills-based curriculum. Typically, they have fewer out-of-schools opportunities than their more advantaged counterparts to integrate the learning of discrete skills into true proficiency. Given the frequent disparities between school and their home lives, disadvantaged students often see less purpose for or meaning in skills-based learning tasks . . . consequently, they need help to find meaning in what they do at school. (p. 755)

Munns and Woodward (2006), writing from the 2005 New South Wales “Fair Go Project” focus on improving student engagement, highlight two important elements of engagement: procedural and substantive engagement. Procedural engagement refers mainly to students being on task and does not necessarily indicate students are enjoying the task or gaining any educational benefits. Substantive engagement implies a multidimensional engagement that incorporates the merger of the cognitive, affective and operative. Munns and Woodward (2006, p. 1) argue that when students are strongly engaged in learning, they are “successfully involved in tasks of high intellectual quality and have passionate feelings about these tasks”. Further, this research identifies self-assessment as a key part of developing greater opportunity for students to improve learning through self-regulation. They suggest that, in classrooms where substantive engagement, student self-assessment and self-expression are encouraged, students have a greater opportunity for critical and deep thinking through peer interactions.

Atweh et al. (2007, p. 9), drawing on Cothran and Ennis (2000), argue that teachers and students see the problem of disengagement differently. Atweh et al. argue that generally teachers attribute lack of student engagement to students’ attitude, previous low achievement or lack of parental support. In contrast, students relate lack of engagement with not seeing the curriculum material as personally relevant and do not feel involved or respected in the classroom.

Rather than being trapped in a mentality of blame about why disengagement exists, Smyth (2006b, p. 2) argues for a rethinking of how we understand engagement. He suggests it needs to be understood as a process that is “played out in the relationship between young people and school”. Based on a critical-transformative perspective to both engagement and disengagement, there is opportunity for a breakdown of traditional classroom relationships that can lead to new ways of conceiving pedagogy. In learning in which students are working on real-world problems in collaboration with a wide range of relevant adults and peers, teachers will have
opportunities to provide insights from those most affected by the problem, and to provide spaces in which students can demonstrate their strengths to significant others and can gain a sense of agency that re-engages them with education (Munns, 2007; Ruddock & Flutter, 2004). The notion of relational engagement is explored further in the following section.

Murray, Mitchell, Gale, Edwards, and Zyngier (2004) conducted a review of the research and practice in primary schools, both in Australia and internationally, that aimed to address the issue of student disengagement. Their paper draws on a range of perspectives, many of which I have already considered earlier in this section, including the Queensland longitudinal study (Lingard, Ladwig, Mills, Hayes, et al., 2001) and the Fair Go Project (Munns & Woodward, 2006). Murray et al. (2004, pp. 7–8) argue that in addition to data collected on disengagement, educators need to gain more evidence about how engagement works and why. They cite three main reasons for the focus on engagement:

1. Engagement in learning makes a difference to achievement.

2. In addition to academic achievement, engagement builds other important social and emotional goals, such as developing schools that are happy places for students to come to and feel a sense of belonging and self-worth.

3. Engaged learners are not passive; they are doers, developing lifelong learning skills, active citizenship and responsibility for self.

Despite their presentation of a range of “engagement” focused projects, Murray et al. (2004) make the point that there is no single recipe of programs or practices and conditions that facilitate student engagement. They make the point that engagement should be context specific in order to be worthwhile. Like innovations, practices that address engagement need to be seen as specific to the individual person, classroom, school or community. From this position, such practices require ongoing monitoring, development, change, reshaping and reworking to meet the needs of the changing contexts and circumstances of the people within it. As Vibert and Shields (2003) suggest:

One of the conclusions to which the study came was that student engagement itself might well be a misnomer, suggesting that engagement is somehow located in students, when in fact analyses of the data we collected argued that
students, like teachers and community members, are engaged in schools when schools are engaging places to be . . . This analysis argues against a reified notion of student engagement as a phenomenon dislocated from time, place, and intention and “reproduceable” through the introduction of various programs and packages meant to engage students regardless of contexts or ideologies. (p. 236)

The impact of such relationships on learning contexts and student outcomes will be discussed in the following section.

**Learning partnerships**

The origins of a KPS were initially driven by simple, pragmatic interests, that is, to reframe the role of computing technologies in schools away from them being another conduit of expert knowledge into schools (knowledge delivery/consumption) and towards an exploration of the idea of schools being sites at which knowledge can be produced. So, in a sense, the literature work I have undertaken feels something like a reverse engineering exercise: locating research and scholarship that meshes with what I have seen on the ground in my school. I am not, however, arguing that it is unimportant to do the articulation, which as I soon realised, in many respects, could have been almost endless. As I discovered, there are echoes of most of the ideas of a KPS in various parts of the scholarly literature in education. What KPS work does, however, is bring these ideas together in ways that are not only interesting but also offer useful ways to think about some of the vexing educational problems I have faced as a principal.

In this section, I want to bring the KPS ideas with which I have been working *in situ* a little closer to literature that is concerned with what I have called learning partnerships. Learning partnerships is a term I use to describe partnerships between the classroom and sources of expertise from outside the classroom. This is not a new phenomenon. Teachers sometimes invite experts into their classrooms to work with their students or, more commonly, take their students on an excursion to the workplace of experts. Partnerships like this move teachers away from their role as the sole knowledge authority in the classroom and open up opportunities for their students to learn from and with people who are more expert in a particular field than their teacher.

An additional authority source in a teaching situation draws attention to the initial relationship between a student and teacher. It has been well documented that the
teacher–student relationship is a major influence in student learning.\textsuperscript{11} How the intrusion of any new authority source is managed becomes an important consideration.

When the student–teacher relationship is considered in the context of knowledge production in a KPS, the conventional set of possible interactions that are to be found in classrooms is disrupted and enlarged considerably. All of a sudden, there are new and often unruly\textsuperscript{12} elements or players in the mix. Parents, members of the local community with expertise to contribute to the specific knowledge being produced, and all manner of materials and technologies can come into play.

The mention of local communities and schools points to a significant literature that has, over a long period, drawn attention to relationships between home and school, community groups and school, local communities and school, as well as business and school. This makes for a complex set of ideas and arguments. I have drawn on a tiny fraction of this literature that speaks to my interest in a KPS.

Sergiovanni (1994), for instance, suggests a need to rethink schools as organisations in order for schools to become schools as communities. He argues that community building in schools contributes to the strengthening of community institutions such as family and the neighbourhood. In their research into leadership for rural school–community partnerships, Kilpatrick and Johns (2004) found that the level of maturity of partnerships influenced how schools and communities went about developing and sustaining connections. They conclude that there was “no ‘one size fits all’ process for developing effective partnerships” (p. 13). Factors influencing capacity within school and communities included the context, the history of partnerships, the availability, capacity and willingness of people to get involved, and the nature of the problem or opportunity being undertaken.

Bigum (2002, August) and Christie (2005) highlight the importance schools play in the location and social structures within a community, with a more central role being played by schools in rural and remote areas. Christie (2005) argues that educators need to maintain learning that ensures the local and global are contextualised and relevant to students by committing to an understanding of knowledge as “primarily

\textsuperscript{11} See, for example, Frymier and Houser (2000).
\textsuperscript{12} At least from the teacher’s point of view.
local, primarily social, and often embedded and enabled both by place and the wider knowledge traditions of our society” (p. 9).

A key component of the local and the social is the family. It has been an important focus in the scholarship of schools and community. The Victorian Parents Association (2009) draw on Henderson and Berla (1994), who found that:

When families are involved in their children’s education in positive ways, children can achieve higher grades and test scores, have better attendance, complete homework, demonstrate more positive attitudes and behaviour, graduate at higher rates and have greater enrolment in higher education. (p. 14)

Despite the obvious benefits to students, many parents are not flooding through the school doors or engaging in the ways suggested by the Victorian Parents Association. In this respect, parent engagement and student engagement raise similar issues. For example, when parent perception of school is based on a traditional approach or even unfavourable personal experience, it is unlikely a positive home–school partnership will develop. Simply being told to get involved because we say “it’s good for your children” will not be enough (Warren, Hong, Rubin, & Uy, 2009).

Parental partnerships with schools have been largely traditional and focused on managerial involvement, such as in parent and citizen groups, helpers and fundraisers (Warren et al., 2009). The Queensland Government’s Education Matters (2000) report detailed a range of findings that related to parents’ levels of satisfaction with schools and their reasoning behind school choice. The majority of parents indicated that schools generally encouraged their involvement in managerial interests rather than curriculum issues. Parental feedback indicated that:

In terms of the inter-relationship between schools and the wider community, parents are least likely to agree that schools are in touch with the business community but most likely to agree that the school links with local community support services (That is, links to support in-need students) but not as likely to be thinking about linkages that will relate students to a world outside school. (pp. 12–13)

In all of these approaches to the relationships between community and school, the logic of separation of school from community largely maps the physical separation between the two. It is commonly found in approaches to addressing problems that are
not easily confined to the physical boundaries of a school. For example, Smyth (2006c, p. 292), approaching this issue from a different angle, identifies an important notion, that of the relational power of students, a term developed by Warren (2005).

Creating schools as “learning organizations”, to borrow from the current popular vernacular, is to have schools that invest students with “relational power” (Warren, 2005). Relational power refers to the building of trust within and across a range of groups in schools in ways that enable the development and pursuit of a common vision about how schooling can work for all, including those most marginalized and excluded. It is about using the capacity that inheres in relationships to begin to address and re-dress social and structural inequality in terms of who succeeds and who fails. Relational power is a “set of resources”, in that it draws upon “trust and cooperation between and among people” (p. 136), and acknowledges that learning involves “the power to get things done collectively” (p. 138) by confronting rather than denying power inequalities.

This observation is important in terms of the argument I am exploring, but it is still located in school. If this logic is extended, in the context of knowledge production, to spaces, places and people outside the boundaries of a school, Warren’s (2005) notion of relational power takes on interesting characteristics. School, a place that is deliberately hived off from “life”, has to work out how to manage, work and cooperate with a potentially very large set of people and things. Lankshear and Knobel (2006b) capture this separation well:

If, on the other hand, we believe that school-based Discourses of learning (school projects, school history, school science, physical education, etc.) should contract significant relationships to “mature” Discourses beyond the school, we have an issue of major proportions. This is because schools “separate learning from participation in mature Discourses and . . . render the connection entirely mysterious”. (p. 200)

In this argument, Lankshear and Knobel suggest that much school Discourse is very much school specific and does not bear resemblance to real-world Discourses. They suggest an alternative way of thinking about school learning in their account of the KPS approach. They suggest it provides:

a view of education as a “whole of community responsibility”. It contracts deep and committed relationships between school and their communities. These relationships go multiple ways. It is not simply a matter of community

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13 After Gee (2000).
groups having the role of being the source of problems and demand for projects. On the contrary, the community provides an essential source of relevant expertise: the expertise that is needed for the student work to approximate to proficient performance in “mature” Discourses. (p. 203)

Decades before KPS work began to be developed, Shirley Brice Heath’s (1983) ethnographic studies of literacy development in disadvantaged communities in the US offered important parallels and lessons for KPS work. She researched students’ learning within their communities and, through research conducted by students, the participation of parents and community in student projects.

With imagination, initiative and the help of some outsiders, teachers were able to create interest and motivation in the students and involve them in reading and writing tasks. . . . When being right, neat, clear, and not appearing “dumb” mattered to them in environments they cared about . . . they were not hesitant to be rough judges on themselves. (p. 314).

In related work, Beecher and Arthur (2001) point to the value of tapping into “community funds of knowledge” for forging partnerships between home and school. They describe funds of knowledge as “language skills valued in the homes and work sites, and the ways in which families engage with diverse oral, written and visual texts in their everyday lives”.

Heath (1983, pp. 316–327) too focuses on language in her account of a Year 5 science class. She highlights the use of both practical and theoretical knowledge development within real-world contexts. Heath’s interest was in the development of literacy. During a science project, students became engaged in their science investigations by developing practical knowledge about agricultural practices in their community. They assembled a “book” of best farming practices and the life stories of good, local farmers. They then compared what they had found with the knowledge they found in textbooks and classroom science. The students needed to research, gather data, and then apply and compare local, practical knowledge with abstract, textbook knowledge.

Another important aspect of Heath’s (1983) study with the Year 5 unit was that the role of the teacher changed. There was a shift in how the teacher taught and how she perceived her role in the learning process. With the students directing their own research, as junior ethnographers, the teacher’s job was to ensure that the curriculum planning and links to relevant subject-specific textbooks or syllabus requirements...
were met. The teacher listed a number of tangible and intangible results for the experiment in having students act as junior ethnographers. Tangible elements included improvements in standardised tests, a student-developed science book for use with other classes and an increase in the quantity and quality of written work by students. Intangible elements included enthusiasm and motivation, parental involvement, improved self-image, and increased diversity of opportunities for displaying knowledge and skills: “The collectiveness of the student-community-teacher knowledge was a radical deviation from the formerly independent individual-student and teacher-dominated approaches to learning” (p. 327).

Heath’s (1983) study also described another junior primary teacher who developed ways for her students to become ethnographers or detectives focusing on language learning. This approach is now used in many classrooms worldwide as a way of engaging students in explorations of the features of language and the way it works. In all of Heath’s work, the initial expertise came from Heath as an experienced ethnographer, which allowed the students to draw upon local as well as formal or school sources of expertise.

Along similar lines, a more recent project, which, as I have noted, was an important contributor to my thinking about KPS work, were the attempts to promote enterprise education in Australian schools. The agenda can take various forms, but at its core is a notion that students should/can learn to become enterprising, or take risks in learning, although the expression of risk-taking is rarely mentioned in formal documents that describe enterprise education. Risk-taking in the classroom is usually somewhat contrived. It is tightly controlled and managed whenever it occurs. But, as any mother knows, a child needs to take risks to learn how to survive in the physical space of the home and beyond. Unlike in the home, risk-taking in the classroom, when it occurs, tends to result in a successful outcome or a soft failure. What students learn about being enterprising or taking risks in the classroom bears little relation to taking risks in the world outside. Ironically, there has been a strong interest in developing resilience in students in recent years (see, for example, Brooks & Goldstein, 2008), that is, to help them cope with failure, other than that associated with assessment practices of classrooms.

Findings from a national study of enterprise education (Erebus Consulting Partners, 2003, p. 3) describe enterprise education as motivated by a concentration on “making
schooling and learning more relevant and engaging for students, irrespective of ability or background”. The focus of the work is on creating authentic learning opportunities for students. The report defines authentic learning as more than off-site learning or real-world learning and suggests a “concept of personal and shared responsibility, accountability, ownership of processes and outcomes, and maximising opportunities for students to make decisions that matter to them and their community” (p. 4).

Being accountable, making decisions and being responsible necessarily involve risk. In the literature I have considered, learning partnerships appear to fall across a spectrum of risk. At one end, risk does not exist or is made minimal—the partnership is simply a matter of the classroom being moved to another physical location, or off-site learning. At the other end, the involvement of other adults and materials generates an environment that is most un-classroomlike. The teacher no longer has control. In tackling a problem, students first have to formulate what the problem is rather than have that work done for them by a teacher. Each step along the way to tackling a problem involves risks of various kinds in a manner not dissimilar to what a student experiences when playing a computer game (see, for example, Gee, 2003, 2005, 2006, 2010; Shaffer, Squire, & Gee, 2005). In such circumstances, the teacher has to learn to manage situations that have few of the predictable attributes of a classroom. Experiences of this kind are recorded in a report of research into enterprise education in Australian schools. The report notes that:

Teachers working in enterprise education value the opportunities to work in new and different relationships with their colleagues, students and community partners. . . . In a number of initiatives, teachers explicitly stated that they had no particular knowledge about or skills in the enterprising activities. Some perceived this as a strength, as the approach required them to engage with their students outside traditional relationships of knowledge provider and receiver. (Erebus Consulting Partners, 2003, p. 5)

Here, the role of the teacher is marked as crucial in the managed disruption of the traditional teacher–student relationship. The teacher remains the lynchpin of the pedagogical approach but with the additional requirements of being able to organise, negotiate, develop, coordinate and orchestrate curriculum and pedagogy. No simple matter!
It is odd; when you look at KPS work from the top down, so to speak, or via existing literature, it comes across as extremely difficult, but when you see it playing out it looks almost easy, simple. A pedagogy based upon KPS ideas is underpinned by some important notions. In order to produce knowledge that is meaningful to both students and the community for which it is produced, new relationships and partnerships with the local community are necessary. The work has to be taken seriously. It has to move beyond the *pretend* logics of school (Bigum, 2004) and it has to be evaluated against a criterion that would be applied to adult-produced products or performances (Lankshear & Knobel, 2006b).

In later explorations and promotion of KPS ideas, Graham (2009) points to the reaction to the quality of work done by students in KPS projects: “Wow! Did kids do that?” It can be traced back to her initial click moment (Johansson, 2012) when she was working in a rural school. She had a barbecue to organise and, like most principals, was doing a dozen other things. In desperation, she asked a group of students, who happened to be Indigenous, for help. She roughly mapped out what had to be done. To her amazement at the time, they organised everything: the delivery of food, the cooking facilities, and so on. The moment clicked for her. Here was a task that would routinely be given to adults to do. The “Wow! Did kids do that?” reaction came from her initial question, “Can kids do that?” This is a difficult thing to ask, given the long history in schools that has enshrined what kids do and what adults do. The mindset that Graham adopted enabled a large number of KPS projects to flourish over many years in a number of schools. This critical point is absent in the small amount of formal literature that exists. Taken seriously, this simple question requires a permission to think differently about the roles of teacher, student, expert, how school is done and so on. I mention this point here because it underlines another gap in the formal literature, the filling of which would be critical for teachers in making sense of what KPS work is all about. The logic of the question flows into thinking about partnerships. Most groups and organisations that have partnerships with schools assume students are only capable of so much and require adult support and guidance to carry out projects that are different from those that routinely occur in schools.

Coming at this point from a different angle, Bigum (2002, August) concurs with Saffo (1994), who argues that what matters most in an age of information overload is expertise—a point of view. Bigum (2002b) takes this idea to develop the notion of a
community building knowledge about itself—in a sense, becoming expert in itself. He argues that what is needed is “the production, accumulation and dissemination of local knowledge (that) will become increasingly more valuable to communities” (p. 5). Schools, he argues, can have a role to play in the community production of knowledge. To achieve such an outcome, new kinds of relationships beyond school are required, and therefore, “schools have to move from the relatively safe ‘pretend’ space of conventional curriculum to doing work that is judged by local community as useful and valuable” (p. 5).

In this way and through this work, Bigum (2002c) believes:

Schools would have to be at least partially remade in the minds of the local community. It would not require wholesale change, but project-by-project it would be possible to build up a repertoire of research skills and products in consultation with local needs and interests. (p. 7)

**Conclusion**

In this chapter, I examined literature concerned with knowledge, curriculum and pedagogy. Notable researchers from Vygotsky (1978a) to Young (2008) argue for the importance of social interaction among more capable peers or adults in progressing the learning and development of all students. Later, the work of Newmann et al. (1996) and Heath (1983), among others, were influential in promoting the importance of acknowledging and understanding learning that builds on the intellectual and social resources of students in order to address the mismatch between “ways of school” and “ways of home”.

Heath’s (1983) ethnographic study, conducted in black communities in the southern US, used the strategy of “students as ethnographers”. The teachers aimed to (1) provide a foundation of familiar knowledge, (2) engage students in collecting and analysing familiar ways of knowing and translating these into scientific or school-accepted concepts and language, and (3) provide students with meaningful learning contexts. Through their active role as participant observers moving from the familiar to the unfamiliar, students improved in many areas, including standardised tests, attendance and attitudes to school, and positive teacher-parent contacts increased (p. 340).

School knowledge in this research is understood to be not taken-for-granted knowledge that is static and simply transmitted from teacher to student. Young
(2008) argues that students need a curriculum that addressed both the “knowledge of power” and “powerful knowledge”. The knowledge of power acknowledges the Marxist notion that the “ruling ideas of any time are the ideas of the ruling class” (p. 14) and, in relation to powerful knowledge, that students need to be explicitly taught “what knowledge can do and what intellectual power gives to those who have access to it” (p. 14).

The three key principles that derive from the research led by Fred Newmann (Newmann & Associates, 1996; Wehlage et al., 1996) from Wisconsin were highly influential internationally and largely informed the Queensland longitudinal study (Lingard, Ladwig, Mills, Bahr, et al., 2001), from which the productive pedagogies were developed. The important notions coming from the research Newmann led were authentic pedagogy, authentic learning and high intellectual quality. In Queensland, these ideas materialised in the well-known trial known in Queensland as the New Basics.

In relation to KPS work, Newmann et al. (1996, pp. 24–27) draw on Wehlage, Newmann and Secada (1996) to argue that authentic student achievement includes:

1. construction of knowledge;
2. disciplined inquiry;
3. value beyond school.

Later in the chapter, I reviewed the elements in pedagogy that were argued to be highly influential in fostering student achievement for all students. Newmann’s measures for authentic pedagogy were detailed, as well as the dimensions of the Queensland Productive Pedagogies. I used these as subheadings to explore literature that related to areas of intellectual quality, connectedness, supportive classroom environment and recognition of difference. It was pertinent that the study conducted by Lingard et al. (2001) found that, while Queensland primary classrooms were generally supportive of student well-being and behaviour, there was a greater need to address increased intellectual rigour and diversity within all classrooms.

All of these studies pre-empt or perhaps anticipate developments like a KPS. If I ignore what I know about KPS work, the literature is consistent with a view that any educational agenda concerned with supporting learning in all students needs a focus
on real learning tasks within community situations; has the potential to link abstract and practical knowledge; builds on prior experiences and promotes scaffolded learning; and develops through student engagement in tasks in which students work in heterogeneous groupings that include expert adults.

I then touched on literature associated with my two interests: student engagement and learning partnerships.

I considered a number of theories about motivation, including attribution theory, goal orientation theory and self-worth theory that pertain to student engagement. The literature suggests that the main element of understanding engagement is about the links between the domains of feelings (emotional), thinking (cognitive) and acting (behavioural). Finn’s (1989) participation-identification model underlined the importance of student participation in a range of in- and out-of-school activities in order to develop greater positive self-image. He also argued that such activities were crucial for the student to develop an involvement, identification and sense of belonging with school. Zyngier (2008) also argued for the importance of students developing a sense of worth and belonging through pedagogy that recognised and valued different social and cultural backgrounds of students and families. With all of these pointers from previous studies, the research of Murray et al. (2004) on the middle phase of learning in Australian schools posits that there is no single approach or innovation that is easily transferrable across all sites. Their argument, which is echoed in many case studies of schooling, highlights the importance of crafting out individual approaches to best cater for the specific needs of local school communities.

In the final section of this chapter, I sampled a range of literature and studies that derived from a particular approach to thinking about the relationship between school and local communities. This literature suggests that a more curriculum and learning focused partnership between home and school can lead to greater levels of student engagement, and significant knowledge production within local communities. A number of researchers (Bigum, 2002a; Christie, 2005; Heath, 1983; Lankshear & Knobel, 2006b; Sergiovanni, 1994) highlighted the value of students being involved in learning activities that were judged at industry standards. Adults are involved as experts in knowledge production. They do not sugarcoat their judgements of the product or processes that students create. From a handful of studies, it seems that
when learning went beyond the classroom, students took their work seriously and achieved to a high standard.

Interestingly, the literature about KPS is short on specific details concerning the establishment and negotiation of partnerships between school and community. We read of how well things turn out but little of the moves and perhaps mistakes that were made along the way, and thus there is a significant gap in developing a professional understanding of this work.

Engagement and learning partnerships when considered in the context of KPS require some rethinking. As Moore and Young (2001) put it, it means “reorienting debates about standards and knowledge in the curriculum from attempts to specify learning outcomes and extend testing to the role of specialist communities, networks and codes of practice” (p. 459).

It means, as Ken Robinson (2013) in a recent TED talk argued, an acknowledgement that:

- Human beings are naturally different and diverse.
- If you can light the spark of curiosity in children, they will learn without any further assistance, very often.
- We all create our own lives through this restless process of imagining alternatives and possibilities, and one of the roles of education is to awaken and develop these powers of creativity.

The KPS work I have seen has all of these values. My problem now is how to study what goes on in this work and communicate it in a way that is useful to my fellow professionals.
Chapter 3: Studying a knowledge producing school

Introduction

John Law (2004) suggests that the topic of research methods is “is loved by some and hated by many!” I suspect he is right.

I do not presume to be able to explain why research methods are so loved or hated by others, but I do know that from my experience with my research, terms such as methodology, epistemology and ontology were not at the forefront of any of my thinking for some time. Instead, my interest and passion were about my questions and the intent of my research.

As principal in my school, the site of my research, I have been fortunate to be part of the development of KPS work, participating in professional development work in my own school and at conferences, promoting the ideas to colleagues, and negotiating projects with the local community. This is where I spent the majority of the time, establishing, trialling, reintroducing and reading in and around this phenomenon.

In what I thought was peripheral reading I came across a paper by Jonathan Grix (2002) that was written to introduce students to important generic terminology in social science research. When I read the paper, I must admit to thinking that maybe I had done it all the wrong way around. Maybe I should have spent more time being clearer about “the interrelationship between core components of the research process: ontology, epistemology, methodology, methods and sources” (p. 175) and, of course, how these related to my research question and me as researcher. However, after further consideration, I realised that I had been thinking and worrying about these issues prior to and during my entire involvement with the research. I was not using the terms outlined earlier; nor was I thinking as categorically as Grix, but, as my notebooks would attest, I was thinking about these matters.

Through some of the reading my supervisor was sending my way and by following some of the trails from those sources, I came across Law’s (2004) book After Method: Mess in Social Science Research. This happened at a time when I was still coming to terms with the kind of logic espoused by Grix. Law (2010), in a later paper, develops what was a nagging idea from his book—that methods do not just measure or describe things; they also help make them:
I want to argue that it’s helpful to think of methods as having a double social life. I want to suggest that 1) methods are social because they are shaped by the social world in which they are located. And 2) they are also social because they in turn help to shape that social world. (p. 1)

I want to leave this point hanging for a moment and continue with my account of me doing battle, as it were, with these ideas. What I hope to do in this chapter is draw together what for me at the time was a set of barely coherent ideas.

So the issue here for me, and hopefully for other research students to know and take heart from, is that you can, by reading, writing, discussing something many times over, eventually get to a point where the ideas you have been drawn to begin to make sense in a meaningful and common-sense way to you as a professional. That has always been an important consideration in all of my postgraduate work. What I found, and will elaborate later in the thesis, was that the path I took challenged my thinking about the fixity of a term such as professionalism and using it as a kind of criterion to think about the value and significance of what I was doing. The longstanding binary of theory and practice is another instance in which I found myself in unfamiliar territory.

All of which is to say that I found that, the more I read and wrote, the more these ideas slowly became a part of my emerging repertoire of heuristics for doing research, and ANT. For me, the most challenging part of the whole study has been the thinking or headwork. My doctoral work, in essence, has been about me, as a student, formulating my own thinking in relation to what else has been done, said and known before. I know that many times I have thought, “Great. That’s what I want to say. That’s a great point”, only to read something a day or so later in which that same great point has already been made. It is hard to be original—to make the contribution to professional knowledge required in a degree such as this. Although, as I came to realise, drawing upon an ANT sensibility, the phenomena I studied and my “doing” or enacting of ANT are in themselves a small contribution to the development of these ideas, at least in education.

While I could easily say that I simply thought my way through how I understood reality, what is out there (ontology), how it can be known (epistemology), how I can go about knowing what is out there (methodology), what I actually need to do to get “the knowledge” (methods), and what I can actually collect (data sources), it would totally misrepresent my engagement with these ideas. The linear approach is
reminiscent of the large mining industry in the town in which the school is located; that is, it is only a matter of following the logic (of mining or social science research) and digging up what is there. I soon realised, as Law (2004) has argued, these matters are a lot messier than first imagined. More importantly, the process of my making sense of all of this was iterative, and often “aha moments” came about accidentally, which is something I have known for a long time as a teacher but, as an apprentice researcher, had assumed would not be the case when doing research.

The idea that had unsettled what I thought I might carry out, some form of case study, was Law’s notion of methods having a double social life; that is, not only are they shaped by the social world in which they are deployed but, he argues, they also shape that world. As I tracked back and forth around John Law’s work and others who align under the colloquial banner of ANT or material semiotics, I found some resonances with how researchers in this tradition worked to develop detailed accounts of “what was going on” and my own work as principal of a school.

One of Latour’s pieces of advice about how to study things was to “follow the actors” (Latour, 1996, p. 243). In a very real sense, this is what I spend much of my time as principal doing. I follow leads. I chase down problems that may come from parents, students, teachers or administrators of the education system in which I work. What I do not do, though, is follow through as much as an ANT-informed researcher would. And I do not keep as detailed a record as Latour advocates. I simply do not have the time and I always have many leads on my plate, so to speak. What I am trying to suggest is that my initial, primitive understandings of ANT resonated with what to me was routine practice as a principal. A related point was made by Latour (1996, p. 47) in his account of a failed electrical vehicle project in France, in which he likens innovation studies to detective stories. Many moments of detection punctuate a principal’s day. Slivers of ideas like this continued to resonate with me.

The other early resonance for me and ANT, or ANTie as one of my PhD colleague students used to call it/her, was concerned with how to talk/think about the different settings in which some of the trial KPS work took place. Students moved from the familiar layout of their classroom to new spaces and places. Things literally changed. I have always wondered about what has been called learning in context. The work that Lave and her colleagues (Lave, 1988, 1990; Lave & Wenger, 1991) have done makes clear that learning is or can be strongly situated. The things and space in
which students work are important elements of what takes place. It took me a while to make the connections, but I came to see that a major focus of ANT and similar research traditions is that the material matters (see, for example, Barad, 2003).

As I made my way further into the extant ANT-related literature, I found myself drawn to the rich, detailed accounts of studies that ranged across a broad spectrum of human activity. In many respects, it was daunting. Were these the kinds of accounts I needed to produce for this thesis?

I have done a great deal of thinking about ANT since then, and I would make no claim to a great fluency or understanding, so my doing of ANT\textsuperscript{14} remains just that, an enactment\textsuperscript{15} by me, in this text, as a principal and a novice researcher. I came to understand that ANT can be understood not as a single thing—a well-defined entity—but rather as something that is multiple—that is done or enacted in many ways and places. I will make this point in more detail below, but it also signals how tricky it actually is to come to terms with the set of ideas and practices that, taken together, gets labelled as ANT.

I used to worry that I might have carried out my study better if I had come to a better understanding of ANT much earlier. On reflection, I suspect that, like other social science research students, it was quite usual to grapple with how to get started in the study and then how to think about the problem or develop the question itself. These two aspects, as I came to realise, were inextricably interwoven. The research question takes on different nuances as you make use of different ways of thinking about it. The dilemma often appears as the now infamous theory–practice divide, something which, as Edwards (2011) argues, marks a division of labour between researchers in universities and education practitioners in other institutions.\textsuperscript{16} As I was later to realise, working within an ANT sensibility means that the tricky separation of theory and practice is recast. As Law (2008) puts it:

On the one hand sociology has a vital empirical tradition. On the other hand it tends to distinguish between empirical research and social theory. This division makes little sense in STS, which develops its theoretical arguments

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\textsuperscript{14} An argument I will make further in the chapter.

\textsuperscript{15} Mol (2002) chose the term. She wanted a word that did not suggest too much, one without much academic history (p. 32).

\textsuperscript{16} This is not to dismiss the now long tradition of practitioner research in all of its various manifestations in education.
through case studies. This implies questions for sociology. Instead of “applying” social theory or imagining that it is describing the world, would it be better for empirical sociology to reconceive of itself as a case-study mode of carrying and constituting theory? And, a complementary move, what would sociology lose if it were to jettison its propensity to grand narrative? (pp. 638–639)

While the notion of developing theoretical arguments through case studies was daunting, I continued my exploration of ANT, in an, I hope, ANT-like manner17 (Latour, 2005). What follows, then, is an attempt to provide the reader with some sense of the trails I pursued and, at the same time, a helicopter view of what I did and where this thesis is going.

**Working towards an actor-network sensibility**

Where to begin this account? I do not want to represent my moves towards these ideas as some kind of logical, step-by-step approach in which I began at the beginning of the ANT literature18 and then slowly worked my way through each case, each example, until I arrived at a sensibility that appeared to bear some relationship to what is represented19 in the literature. Scholars who have a greater familiarity with the ideas with which I was working are adept at succinctly capturing important notions. For example, an account of what ANT is and is not was written by Law (2009):

> Actor network theory is a disparate family of material-semiotic tools, sensibilities, and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located. It assumes that nothing has reality or form outside the enactment of those relations. (p. 141)

This is, as Law suggests, a textbook-like account, definitional, which as he goes on to argue, is misleading. It is an account that would sit comfortably alongside other accounts of methods and methodologies employed in educational research.

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17 Slowly, and keeping as good a record of my progress as I could manage in my trusty notebooks. John Law (2004) pointed me to David Appelbaum’s *The Stop* (1995), in which Appelbaum contrasts the quickness of seeing with the groping of the blind person. For most of my engagement with ANT, I was able to relate to the groping of a sightless person.

18 Although where that might be exactly is a moot point.

19 I use the word *represented* to gesture to the difficulty of working across two ontological positions: the representational and non-representational.
I became familiar with the relational argument that is at the heart of ANT-informed work but was drawn more to a notion that appears in the writings of Latour, Law and others. Latour (2005, p. 122) writes about slowciology. Law (2004, p. 10), drawing on Appelbaum’s (1995) notion of poised perception in his examination of blindness, puts it this way:

The stop slows us up. It takes longer to do things. It takes longer to understand, to make sense of things. It dissolves the idea, the hope, the belief, that we can see to the horizon, that we can see long distances. It erodes the idea that by taking in the distance at a glance we can get an overview of a single reality. So the stop has its costs. We will learn less about certain kinds of things. But we will learn a lot more about a far wider range of realities. And we will, or so I also argue, participate in the making of those realities. (p. 10)

Slowing down is something of a luxury for a principal, but the sense that I was not after the definitive account, the god’s eye view of what was going on in each of the small experiments around knowledge production, and that I should take my time was reassuring. Law, continuing, argues:

What we’re dealing with here is not, of course, just method. It is not just a set of techniques. It is not just a philosophy of method, a methodology. It is not even simply about the kinds of realities that we want to recognise or the kinds of worlds we might hope to make. It is also, and most fundamentally, about a way of being. It is about what kinds of social science we want to practise. (p. 10)

So, for me, this was an opening, a way in to think about my work as both principal and researcher. For me, the purpose of education revolves around “the kinds of worlds we might hope to make” through the children with whom we work. I was reassured but also still had to work through the notion of making realities and the ontological claim that, in this particular approach to doing social science, I was talking about realities, plural, not reality, singular. This position is a crude end point of my travels in ANT-related thinking. I want to now briefly touch on some of the stepping stones that helped me get to this point.

The terms methods and methodology, as I have noted, can be both confusing and intimidating to the beginning researcher. While I appreciate the importance of maintaining a logic and consistency through the relationship between the ontology, epistemology, methodology and methods of any approach to conducting research, I
found that the attention to mess, slowness and detail as they appear in some of the canonical ANT texts offered me a less formulaic approach to the classroom work I was studying. I was also drawn to the prospect of not having to work with the conventional categories that are in common use in education. Yes, I had to map some of these as part of the study, but in relation to coming to terms with what took place in each of the instances I studied, I was freed up, as it were. I came to understand that thinking about people and things relationally opens up ways of thinking differently about the issues that this research attempts to address.

This is how I came to understand what happened as I worked my way through the notions of an ANT sensibility. Labels like methods and methodology evoke accounts of properties and formal descriptions. The categories we live with and by in schooling are both useful and limiting. I wanted, somehow, to be able to think differently about what I had seen in the early KPS projects. During my coming to terms with ANT ideas, I came across Howard Becker’s (1998) *Tricks of the Trade*. He draws explicitly and implicitly on Latour in part, but generally this is an account of asking many of the questions I had been asking about what I was doing and why. Further, he offered simple heuristics, or tricks, to help disconnect from the patterns of thinking about schooling that a person like me has developed over a long period of time. Alongside the strong advice from scholars such as Law (2012), which I will examine later, here were some heuristics that helped me think differently about how to study the phenomena of interest. I will use Becker’s work at the end of this chapter to organise how I began to think about “the how” of my research, what is commonly labelled methods.

At this point, I want to make use of a device Latour (2005) used in *Reassembling the Social*:

In some ways this book resembles a travel guide through a terrain that is at once completely banal—it’s nothing but the social world we are used to—and completely exotic—we will have to learn how to slow down at each step. If earnest scholars do not find it dignifying to compare an introduction of a science to a travel guide, be they kindly reminded that “where to travel” and “what is worth seeing there” is nothing but a way of saying in plain English what is usually said under the pompous Greek name of “method” or, even worse, “methodology”. The advantage of a travel book approach over a “discourse on method” is that it cannot be confused with the territory on which it simply overlays. A guide can be put to use as well as forgotten, placed in a backpack, stained with grease and coffee, scribbled all over, its
pages torn apart to light a fire under a barbecue. In brief, it offers suggestions rather than imposing itself on the reader. That said, this is not a coffee table book offering glossy views of the landscape to the eyes of the visitor too lazy to travel. It is directed at practitioners as a how-to book, helping them to find their bearings once they are bogged down in the territory. (p. 17)

Similarly, what follows is something of a travel guide for the reader describing my journey through a set of ideas that were rarely banal, most often exotic and made me work very slowly.

**Labels, actors and hyphens**

So, what is ANT? Or perhaps the question should be, what is it not? When contemplating this question of what ANT is and is not, Bruno Latour (1999) argued that “there are four things that do not work with actor-network theory; the word actor, the word network, the word theory and the hyphen!” (p. 15). Annemarie Mol (2010), writing 10 years after the publication of the book *Actor Network Theory and After*, in which the above quote appears, notes that in the same book, Michel Callon writes, “ANT is not a theory. It is this that gives it both its strength and its adaptability” (p. 253). She continues: “Callon should know. In the early eighties, in an article in French, he was the first to speak of acteur-reseau. A short while later this term was translated and transformed to become actor-network in English” (p. 253).

She notes that the earliest form of the term she could find in English was Callon (1986a). Mol’s account carefully traces the almost accidental naming and subsequent coining of the acronym ANT. She further observes that Latour, a name so commonly associated with ANT, hardly used the term up to the late 1990s. The anxiety over what turned out to be a runaway name, one that the manufacturers could not recall, was a useful opening for me because the initial ideas were re-examined and debated in the edited collection of Law and Hassard (1999) and then later in Mol’s (2010) paper.

The term actor is a key notion in ANT, largely because—and here I will use the invention of my PhD colleague and use the term ANTie to gesture to the mangle of people, papers and related materials that cannot be collapsed into a single thing—ANTie is interested in how things change, how things move across time and space. At its very simplest, ANT says that actors are simply things that do things, things that change other things. For example, a window keeps the wind out, lets the sunshine in and so on. The work a human would have to do to replicate what a
window does is considerable! ANT is not concerned about the separation of actors who have language (humans) and those things that do not (things). Even though we can write about actors as single entities, when we inspect them more closely, we find that they too are made up of a collection or network of material and things. We tend not to notice such associations unless the actor fails in some way; for example, the window is broken. We then see part of the network appearing to restore things. A glazier will arrive, cut glass from a larger sheet and replace the broken glass in the window. The glass itself can be traced back to its manufacture, and back further to the time when it was discovered or invented and so on. ANT sees things as both a network and a single thing—actor-network for short. I will use the term actor to refer to this sense of actor, that is, as both human and non-human and a summing up, a single thing as well as a network.

In passing, it is worth noting Latour’s (1999) argument that the social sciences:

have alternated between two types of equally powerful dissatisfactions: when social scientists concentrate on what could be called the micro level, that is face to face interactions, local sites, they quickly realise that many of the elements necessary to make sense of the situation are already in place or are coming from far away; hence, this urge to look for something else, some other level, and to concentrate on what is not directly visible in the situation but has made the situation what it is. (pp. 16–17)

Latour (1999) posits that the social sciences tend to oscillate between the two positions. On arrival at a micro-level analysis, it is realised that something is missing and that it can be found by moving to a larger scale. Then, at the larger scale, it is realised too much is missing from the local and a movement back to the local occurs. The hyphen, then, for Latour is less an “unfortunate reminder” of these debates and more an indicator of the “summing up of interactions through various kinds of devices, inscriptions, forms and formulae, into a very local, very practical, very tiny locus” (p. 17). So, at this highly local focus, what does the ANT-informed researcher do? Here, Latour is quite explicit:

For us, ANT was simply another way of being faithful to the insights of ethnomethodology: actors know what they do and we have to learn from them not only what they do, but how they do and why they do it. It is us, the social scientists, who lack knowledge of what they do, and not they who are missing the explanation of why they are unwittingly manipulated by forces exterior to themselves and known to the social scientist’s powerful gaze and methods. . . it always was . . . a very crude method to learn from the actors without
imposing on them an a priori definition of their world-building capacities. (pp. 19–20)

ANT researchers also continue to use both the term and acronym as placeholders that gesture back to its origins and in this case the term ANT is used in lieu of coming up with anything less awkward. Given all of this, what about the use of theory in the label?

**Theory and amateurs**

In keeping with its ethnomethodological roots, ANT is best seen as one of a number of anti-essentialist movements. Latour and others have been clear that ANT-informed work does not engage in looking for essences, defining properties, attributes or entities. As Mol (2010) puts it:

> ANT is not a theory. It offers no causal explanations and no consistent method. It rather takes the form of a repertoire. If you link up with it you learn sensitising terms, ways of asking questions and techniques for turning issues inside out or upside down. . . . In “linking up with ANT” the art is not to repeat and confirm, but to seek out cases that contrast with those that came earlier. A contribution to ANT gently shifts the existing theoretical repertoire. And then, as the theoretical repertoire shifts, it becomes possible to describe further, different cases . . . The point is not to fight until a single pattern holds, but to add on ever more layers, and enrich the repertoire. One might say that, in analogy with amateurs of music, drugs or wine, researchers involved in ANT are amateurs of reality. Their theoretical repertoires allow them to attune themselves to the world, to learn to be affected by it. (p. 261)

I began to reflect upon how I could somehow remake my sensibilities that have become entrenched in the various protocols of formal schooling to those of an amateur of reality, particularly in the specific cases that interested me.

There is already a lot on the table, so to speak, that both attracts me and makes me nervous. I still struggle with the notion of what is and is not a theory. Mol eventually came down on the side of ANT being a theory but a theory of a very different sort than what is generally understood as theory. The notion is well captured by Nespor (1994), citing Latour (1988):

> Theory does not subsume or explain “empirical” work, it’s simply a way of moving it, or as Latour (1988) suggests, of connecting different networks of knowledge-work:
Theories are never found alone, just as in open country there are no clover leaf intersections without freeways to connect and redirect . . . When a series of locations has been mastered and joined together in a network, it is possible to move from one place to another without noticing the work that links them together. One location seems “potentially” to contain all the others. I am happy to call the jargon used to get by inside these networks “theory”, as long as it is understood that this is like the signposts and labels that we use to find our way back . . . What we call “theory” is no more and no less real than a subway map in the subway (pp. 178–220).

(Nespor, 1994, p. 2)

Maps and movement relationally convey, at least to me, the amateur in this space, a sense of avoiding the large explanatory devices available to the social scientist and instead pursuing a path of description, seeking to learn from the accounts of human and non-human actors. It seems more like a tradition, but one that evolves and is enriched with each study. The notion of an ANT sensibility seems then to make some sense.

Here, I think, it is useful to briefly consider a handful of stories from the ANT repertoire that I came across to further explore the ideas I have been trying to map. My ANT repertoire was not built by working through all of the classical papers but by allowing papers that made connections for me at the time to receive more attention. Even so, I cannot include them all here. I hope the choices I have made help the reader make sense of the map I have slowly assembled. I use the word stories deliberately. Law (2000) puts it succinctly: “Donna Haraway and Sharon Traweek teach us that when we tell stories these are performative. This is because they also make a difference, or at any rate might make a difference, or hope to make a difference” (p. 2). Here, I simply want to leave a placeholder for stories and their performativity. I will draw on ANT-informed stories in which performativity is done to elaborate this point further. But I begin with stories from what is regarded as the early or classical period of ANT.

Latour’s (1988) now famous account of the work of Louis Pasteur in discovering and producing a cure for anthrax is something of a touchstone for the field. Pasteur is regarded by the French as one of that country’s great men of science. Latour, taking a material-semiotic view, sees all actions, including those of Pasteur, as relational. Here connections are not just made between humans but also made between cows,
bugs, farms, petri dishes, blood, and so on. In a detailed account, Latour (1983) traces these relationships and illustrates that Pasteur’s success was not the achievement of one great man but of a veritable army of people and things that were brought together. Farms were domesticated, translated, in effect, into laboratories. Vaccines were produced from bacteria. Cattle stopped dying from anthrax. No actor ever acts alone. Latour (1983) traces how Pasteur captures the interests of indifferent groups using a technique he has used with success previously in other fields of his research: “He transfers himself and his laboratory into the midst of a world untouched by laboratory science” (p. 145)—the farm. In effect, he turns or translates the farm into a laboratory. He brings back to his laboratory in Paris one element, leaving the rest of the farm behind. In his laboratory, under conditions it has never experienced before, the anthrax bacillus grows rapidly, exponentially. The bacillus is made visible. I have edited the many traces and relations that enabled this event to occur. Pasteur the actor is also Pasteur the network. Latour goes on to articulate Pasteur’s study of the bacillus: it is trained and domesticated. The final move is the translation of the laboratory back to a farm\textsuperscript{20} where he can publicly show what he has been rehearsing in his laboratory: infected animals that receive the vaccine live, those that do not die. Pasteur now has a lever to translate all of the farms of France into laboratories:

But after Pouilly le Fort, everyone is convinced that the translation is now: “If you want to save your animals from anthrax, order a vaccine flask from Pasteur’s laboratory, Ecole Normale Superieure, rue d’Ulm, Paris.” In other words, on the condition that you respect a limited set of laboratory practices—disinfection, cleanliness, conservation, inoculation gesture, timing and recording—you can extend to every French farm a laboratory product made at Pasteur’s lab. (p. 152)

While it is tempting at this point to map this kind of account onto my small experiments with KPS, I will leave that to the following chapter.

Perhaps the most famous and controversial papers from early ANT research is Michel Callon’s (2007) “Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St. Brieuc Bay”.\textsuperscript{21} Callon tells the story of scallops and fishermen in St. Brieuc Bay in the 1970s. The demand for

\textsuperscript{20} Pouilly le Fort.

\textsuperscript{21} The original paper was published 10 years earlier (Callon, 1986b).
scallops had increased, and due to a combination of conditions exacerbated by fishermen who were not allowing the scallops time to reproduce, the scallop population in the bay was in decline. It seemed inevitable that they would disappear completely from the bay, as had happened elsewhere in France. Callon coins the phrase sociology of translation to tell a story of “the simultaneous production of knowledge and construction of a network of relationships in which social and natural entities mutually control who they are and what they want” (p. 59).

His story begins with researchers who had travelled to Japan and seen scallop larvae anchor themselves to collectors and develop free of predation. When they reached a particular size, they were distributed across the ocean floor to grow “normally”.

Callon’s story is one of making relationships. Initially, the fishermen know nothing of scallop larvae. They had never seen them. There is no connection between them and the larvae. The scallops studied by the researchers in Japan were a different species, so the question remained, would the species in St Brieuc bay behave in a similar manner, that is, attach themselves to collectors and so be safe from predators and able to grow to a size that allows them to survive on the ocean floor?

Callon develops his account around what he terms the four moments of translation. He is interested in the scientists’ attempt to domesticate the scallop larvae, the fishermen and other actors. Callon posits that the researchers bring three other actors into the story: the species of scallop native to the bay, the fishermen who work the bay and scientific colleagues.

The key questions, around which the scientists position the various actors, are:

Does Pecten maximus anchor itself during the first moments of its existence? Other questions which are just as important accompany the first. When does the metamorphosis of the larvae occur? At what rate do the young grow? Can enough larvae be anchored to the collectors in order to justify the project of restocking the bay? (p. 59)

Problematisation, as Callon calls it, is a move in which an actor redefines other actors’ problems in their own terms. The larvae want to survive. The fishermen want to have a viable scallop industry and their scientific colleagues want to advance knowledge about the species. All three problems are drawn to the researchers’ question, does the larvae attach itself? The question is a statement of the research project the researchers want to conduct, to study the behaviour of the larvae and
Callon, need to interrupt or weaken other associations or relationships that the other actors have. Identities and goals are formed relationally, he argues. Problematisation is a redefining by the establishment of new relationships. The problem of interest is placed between each actor and all other entities who would define them otherwise.

To achieve this outcome, the actors have to be persuaded or enrolled. As Callon argues, he is not making a case for the anthropomorphisation of scallops but rather for their action of attaching themselves to the containers or not. The alliance only works if all the actors are willing to have their relationships realigned. It is not as simple as it sounds:

If the scallops are to be enrolled, they must first be willing to anchor themselves to the collectors. But this anchorage is not easy to achieve. In fact the three researchers will have to lead their longest and most difficult negotiations with the scallops. Like in a fairy tale, there are many enemy forces, which attempt to thwart the researchers’ project and divert the larvae before they are captured. First the currents: of the six towlines, four functioned correctly before different variables intervened. It appears that the larvae anchor themselves better in the innermost parts of the bay where the tidal currents are the weakest. (p. 64)

Callon’s account goes on to trace complication after complication, all of which have to be dealt with in order to obtain the cooperation of the scallop larvae. The arrangements between researchers, fishermen and scallop larvae remain precarious and always open to disruption.

This early style of ANT story has been criticised by giving too much attention to the researchers, or whoever is deemed to be doing the recruiting or managing the alliance (Star, 1991). There were other criticisms, as detailed by Law (2009) in his tracing of the history of the development of these ideas:

It was suggested that the approach effaced whatever could not be translated into network terms, so failing to recognize its own role as an intellectual technology of Othering (Lee and Brown, 1994). And third, it was argued that it was not very aware of its own politics, and in particular of the political agendas of its own stories (Haraway, 1997). (pp. 149–150)

At this point, ANT takes a performative turn. While elements of the performative are evident in some of the early ANT writing, in the late 1990s, the performative became a more visible part of ANT’s repertoire, in what Law (2009, p. 151) calls a “seismic
It is clear that the shift to “the performative” continued to grow in importance in ANT-informed research and scholarship from the period:

Crucial to the new material semiotics is performativity. We are no longer dealing with construction, social or otherwise: there is no stable prime-mover, social or individual, to construct anything, no builder, no puppeteer. . . . Rather we are dealing with enactment or performance. In this heterogeneous world everything plays its part, relationally . . . [all the actors] assemble and together enact a set of practices that make a more or less precarious reality. (pp. 150–151)

The move, as Law (2009) notes, has strange consequences. He draws on Annemarie Mol’s (2002) case study of lower limb atherosclerosis. The condition appears in different forms in different locations in the hospital in which she conducted her study:

In the surgery it presents as pain on walking; in radiography as [sic] appears as an X-ray photo of narrowed or blocked blood vessels; in the ultrasound department it takes the form of Doppler readings which detect increases in blood speeds at narrowed sections of vessels; and in the operating theater it manifests itself as a white paste scraped out of blood vessels by the surgeon (Mol, 2002). It is tempting to say that these are different perspectives on a single disease. This, however, is precisely what Mol rejects. In material-semiotic mode, she argues that each practice generates its own material reality. This means that for atherosclerosis there are four actor networks or realities rather than one. Then she says that how these relate together, if they do so at all, is itself a practical matter. Sometimes, and for a time, they may be coordinated into a single reality, but often this does not happen. So Mol’s claim is simple but counterintuitive. In theory the body may be single but in practice it is multiple because there are many body practices and therefore many bodies. (Law, 2009, p. 152)

The version of material semiotics is at the heart of ANT, which brings Mol’s ethnography of a disease to the point where, she argues, not being drawn into a perspectival account allows each manifestation to be treated as something that derives from various practices in different locations in the hospital. If, instead of bracketing the practices out, the practices are foregrounded, reality multiplies. Rather, a single object, the disease, is seen via different perspectives (attending to the practices that produce Doppler readings, white paste or pain on walking), the reality of the disease multiplies. Not just the disease, but all of the other actors, human and not—doctors, patients, X-ray machines, ultrasound devices and so on—are produced
through various practices. As Mol (2002, p. 5) puts it, “all of these are more than one”.

Ontological arguments are tricky. These are claims about the nature of reality. So instead of a single cohering network, as the earlier ANT work suggests as a way of accounting for the various changes that were studied, Mol’s work points to an explicitly precarious arrangement in which some realities cohere at some times and at others, they do not. This brings me to the performativity of this thesis, or any depiction, account or narrative. They all interfere, some successfully, others less so, in other realities. Law (2009) again puts it well:

There is nowhere to hide beyond the performativity of the webs. But since our own stories weave further webs, it is never the case that they simply describe. They too enact realities and versions of the better and the worse, the right and the wrong, the appealing and the unappealing. There is no innocence. The good is being done as well as the epistemological and the ontological. (p. 154)

Instead of seeing what took place in terms of the different settings or contexts of each KPS event, I found myself puzzling about the practices that produced the various elements that had drawn me to KPS work in the first place.

Before turning to the accounts, the stories of this thesis, I want to consider briefly two more cases, two more studies, that have added to my ANT repertoire. I opted to include these two, not for the specificities of what they report, but because, to me, they were useful interferences in my doing of ANT.

The first of these is a study informed by ANT conducted by Dianne Mulcahy (2010). She undertook an exploration of professional teaching standards in Australia. She asks the interesting question, “Where are standards?” Following Moser (2008), she argues that, if teaching standards are enacted or done differently in different practices, then it is important to look at the politics of these practices. Her position is that “standards do not simply describe pre-existing realities such as accomplished teaching practice or accomplished teachers; they actively produce them” (p. 3).

When I first read her paper, I took a long time to think about her proposition. Later, I recall that Law, Savage and Ruppert (2011, p. 8) had made a similar argument about methods in social science, which is “they don’t just represent reality out there; but they are also performative of the social”. The more I read around the performative in ANT, the more I realised that it opened up, in a way that I had not imagined, a kind
of thinking differently about the practices of schooling that was one of the shaping influences of my study.

Mulcahy’s argument draws attention to what some refer to as the problem of representation: that there is a reality and we can represent it in a variety of ways. Representations have, as Karen Barad (2007, p. 48) suggests, taken on a commonsense appeal. It seems so obvious that it may appear odd to raise the fact that there is a reality “out there” and we represent that reality in words, images, measurements and so on. What the ontological move that “the performative” does is draw attention to representationalism: “the idea that representations and the objects (subjects, events, or states of affairs) they purport to represent are independent of one another” (p. 28).

Barad, Mulcahy, Law and many others argue that, in paying attention to representations, we tend to ignore the practices that produce them. Mulcahy (2010) explores the practices associated with what she describes as the representational and performative idioms of teaching standards. She makes a case for seeing standards as “performative knowledge and identity practices” (p. 1), which leads to a recognition of the multiple knowledge practices in the enactment of standards, a position that highlights the limits of standards in a representational idiom. Mulcahy’s position in the paper echoes an argument that David Turnbull (1997) makes about knowledge spaces: that there needs to be a balance between the representational and the performative:

This overly representational view of knowledge can be balanced by recognising that scientific knowledge production is a social activity. Indeed all knowledge is both performative and representational. It is historical, contingent and is coproduced with society. This means we can reconceive the social history of knowledge in a variety of intersecting and overlapping ways, which move beyond simple contextualisation. Science may be seen as a history of visualisation or as a history of measurement and rational calculation. However, I would like to argue that a particularly perspicuous cross-cultural history of knowledge production is as a social history of space. That is as a history of the contingent processes of making assemblages and linkages, of creating spaces in which knowledge is possible. (p. 553)

22 The ontological move that is commonly referred to as “the performative” or the performative turn can be traced back to the work of Judith Butler (2006).
I will return to Turnbull’s point about “creating spaces in which knowledge is possible” later in the thesis. At this point, in tracing my ANT repertoire and having moved, albeit nervously, to include “the performative”, I want to acknowledge a final case: Anthea Nicholls’s (2009) study of the social life of the computer in Ramingining. In a paper (Nicholls, 2013) that draws on her thesis, she gives an account of a family in Ramingining, a remote Indigenous town in northern Australia, endeavouring to get access to money in their bank accounts. At the time of this story, Nicholls was living in a caravan in the town and running an internet cafe as well as supporting a library/computer access facility called the Knowledge Centre. The paper describes the successful transfer of money from the account of Glen, an Indigenous Yolŋu, to the account of his daughter, Wamuttjan. His daughter’s account is with the Traditional Credit Union and there is an outlet in the town. Money can be withdrawn. All works well. Nicholls then steps back in time to recount the month-long process that preceded the smooth transfer. It is a story of negotiating with banking systems, humans and computer systems, of suspended access to telephone banking, of establishing access to internet banking, of paper accounts, of juggling identity confirmation protocols, of doing things quickly, of delays resulting in being logged out, of negotiating by telephone, of misdirected mail, of pieces of paper with codes and passwords.

Nicholls deploys classical ANT notions—obligatory passage points, translation, immutable mobiles, black boxes, intermediaries and so on—in enacting the experience of the Yolŋu family in establishing a process by which they can move digital money between accounts to gain access to physical money for their day-to-day purchases. It is the story of a family whose knowledge practices are traditionally performative coming to terms with a Western system of knowledge practices that are almost invariably representational (Verran, Christie, Anbins-King, Van Weeren, & Yunupingu, 2007). It is also a story of finding a way to go on in places where being able to access money from your bank account can take a month. It is an account in which the material, the non-human elements of the networks Nicholls describes, are, as in Sørensen’s (2009) study, very much to the fore.

It is from this eclectic collection of ANT stories that I now want to consider what I did in the two studies reported in the next chapter.
Methods

As I hope I have conveyed, I came to this work with what I thought was a fairly good understanding of what method was. The more I worked through the ANT literature, the more I came to realise that my initial thinking was close to what Mol (2002) describes as the first genre of method, the legislative kind:

It discusses how method should be shaped in such a way that the knowledge it helps to generate is valid. Valid knowledge should not contain the traces of the subjects who engage in knowing, nor of the situation in which the knowledge is articulated. It must be pure. No biases, no noise, should spoil a science’s clear mirror image of the object. (p. 152)

But, from earlier engagements with various research methods through coursework many years earlier, it seemed that my thinking might have also belonged to her second genre:

The second genre in the literature is critical. It undermines the first. It tells that those who join the quest after a sound method have so far not found it. Along the way the main effect of their attempts at legislation has been to demarcate science from other kinds of knowledge. (p. 152)

And now, with the arguments of Mulcahy, Law and others still fresh in my mind, the third genre looms large in my thinking:

The third genre in the literature not only abandons the quest for a sound method, but also the critical campaign against it; instead, “method” is turned into an object of inquiry. A variety of questions are being asked about it—in empirical mode. (p. 153)

The three genres are of course not so easily separated in practice(s). You have to do things to “collect data”. You have to listen to what is said. You observe, make notes, take photographs, make use of collected artefacts and so on. But in doing these things, I have to keep reminding myself that, as Mol (2002) puts it:

knowledge should not be understood as a mirror image of objects that lie there waiting to be referred to. Methods are not a way of opening a window on the world, but a way of interfering with it. They act; they mediate between an object and its representations. (p. 155)

So I list here the ways I interfered, my mediations between the practices in which I was interested and their representations.
Attaching a label to what was a diverse set of practices that seemed to adjust and adapt to the particular circumstances I encountered conveys more than I intend. I was still the principal but I was also the researcher. I was carrying out what Marcus (1995) describes as a multi-sited ethnography. It is an approach that allows an ethnographer to move from a single site to one in which day-to-day practices can be traced across space and time. It allows for an expansion of “what is ethnographically ‘in the picture’” (p. 102).

As principal, I visited classrooms regularly. My role as principal was, to me, to provide support and encouragement to teachers, students and their parents. In a sense, my routine practices, the things I did in most classrooms, were extended when I visited the classrooms in which KPS projects were being undertaken. This style of work, perhaps less informed by the formal accounts referred to in this thesis, was nonetheless acutely sensitive to my role as a figure of authority in the school. I had begun to explore KPS projects long before I undertook this formal study. As I have noted, it was the promise of this work that drew me to the point of wanting to study it more formally. At least, that was how I felt at the time. The early explorations were done on an entirely voluntary basis. Conversations between teachers meant that I had teachers approaching me to do work based on KPS ideas. I had no shortage of willing participants. I took teachers with me to visit schools and attend conferences in which experiences from other schools were being shared.

So when I began the formal study, KPS was not something new to the school. It was something new to those who were new to the school, however, which is why I prepared materials to introduce teachers, and other interested schools, to these ideas.

For me, it was difficult to separate out my role as principal, the person who had supported and encouraged KPS work in the school, and my role as researcher, someone trying to make sense of what was happening but also resisting the urge to initially locate what I experienced into well-established categories and ways of thinking about formal schooling. KPS was different. I did not want to distort what was going on into clarity, as John Law (2004, p. 2) put it.

Nevertheless, I had at my disposal the usual toolkit of an ethnographer. I had notebooks, tape recorders, cameras and methods to label collected artefacts so I could find them relatively easily when I began to write the stories. I kept a journal to track my own thoughts as I began to build a large collection of notes, transcribed
audiotapes of interviews, group discussions, and lessons, took photographs of participants, places and items pertaining to each situation throughout the various projects and, where possible, collected copies of classroom artefacts.

I was able to spend some of my time each day simply watching and making notes. My principal’s routine was not very different from my researcher routines. I followed leads as they appeared. Latour’s account in Aramis (1996) of acting much like a detective was a reassuring aside when I came to assemble this account of my methods. I also made use of short interview conversations consistent with the style and approach that Latour adopted in his study of the electrical vehicle project in France (Aramis). I interviewed students, teachers, parents and members of the community who had become associated with particular projects. Both of the stories in the next chapter involve off-site activity. I made every effort to attend as much of these as I could. The times when I could not participate, I arranged for tape recordings and photographs to be taken. I negotiated with each project a briefing role for students and staff in which they would keep me up to date with developments via email, brief face-to-face meetings or brief notes.

Of the KPS projects undertaken, I have selected two particular projects that highlight the study focus areas of “learning partnerships” and “student engagement”. The “Indigenous Story Writing” story highlights the powerful relational networks that emerged throughout the course of this project. In the early stages of the project, the teacher believed that he was “losing control” of the project because the local Indigenous elders began making decisions about who would and would not be involved, where the stories would be told and what else would need to be included for the event, such as food and which other elders would need to be invited. Transcripts of the talk from both the day of storytelling and the work back in the classroom revealed significant differences in what was important in learning about “storytelling” and how the various participants interacted with one another. The second data story, “Valley Visuals”, was selected because it highlights the stories of a number of students who were described as being disengaged from learning and schooling. During the course of the project, changes in the students’ engagement were evidenced through their increased involvement in schoolwork, in the project production, in their learning achievements and as reported to me by students, staff and parents.
Participants in the two studies described in Chapter 4 included students aged 8–13 years old, teachers in the middle and upper primary classes, other education personnel and a range of parents and community personnel. The names of project participants have been altered for reasons of confidentiality. In some stories, the titles of participants’ roles have been included to help the reader make sense of the accounts. The location of the study, as I mentioned in the introductory chapter, is a remote urban primary school site in North West Queensland.

The beginnings of projects typically did not conform to what you might call routine school projects. The opportunities to do projects that involved people from the local community and that ended up producing useful knowledge for the community did not appear in a regular or patterned manner. The early, pilot projects taught me that once your mind had a grasp of the nature of KPS work you were better able to pick up on opportunities as they appeared. Without the sensitising from the early KPS work, I imagine that many of the opportunities that popped up would have been ignored or not noticed.

Some of the projects came from teachers, some from student interest, but generally, these origins were only available to teachers and students who had had some prior experience of doing KPS work. In many respects, once a class or teacher comes to understand how such work operates, projects tend to flow.

As I noted in the literature review, projects similar to KPS work have an almost accidental beginning. Seeing how opportunities might be played out as informed by a KPS mindset allowed me and teachers to explore opportunities that, otherwise, if framed by normal classroom thinking, would not have eventuated. The data stories illustrate these ideas. Working like this made my note taking and record keeping important both for my research and for my role as principal in supporting this style of work.

As principal and promoter of these ideas, teachers would generally bring their ideas to me or, if I had picked up on an opportunity, I would toss the idea to them. Teachers who became involved in KPS work did so voluntarily. The involvement of first-timers was probably motivated by curiosity, perhaps supported by conversations with colleagues who had led a KPS project. However they arose, I was inevitably involved from the early stages.
At the beginning of each project, I tended to work with the teachers who had either initiated the project or responded to an often vaguely presented opportunity. For example, students developed a DVD of our school and local community in response to transferring teachers requesting more information and reassurance about moving to a remote location. The product they developed offered teachers being transferred into the region a very localised view of various aspects, such as sporting and leisure activities, business and services and the school, its students and staff. Community involvement happened in a variety of ways. For example, in the case of a local causeway project, initial concerns and interest were driven by students because they were concerned about the dangers of travelling to and from school during certain weather conditions. They engaged with local government officials to investigate what could be done to improve or change the roadway. In the case of the Japanese garden project, the teacher worked with students to research Japanese gardens and build their own replica in the disused library courtyard. In the case of the SES project, the students and teachers liaised with the SES staff to investigate local knowledge of its service, which would be presented at its state council forum.

At the starting point of each project, I tended to work initially with teachers, then, depending upon the project, would work on drawing in community participants as determined by the nature of the project. In a number of projects, students, with teacher support, took the initiative in engaging with members of the community.

When I came to document each case, I used my notes to construct a time base as an outline. I then compiled all data gathered throughout, including photos, journal notes, lesson transcripts, lesson artefacts and interview transcripts. I searched for evidence of changes that occurred throughout the project; for example, when a student had been described throughout as making positive changes, I would search back through the data, try to retrace the student’s engagement and then continue to monitor that student throughout. For example, in the Valley Visuals art exhibition project, a number of students were highlighted to me by the teacher throughout because of the positive changes noted in their participation and achievement in the project and beyond.

**In the very beginning**

When I began to explore these ideas for the first time, I started with teachers. I talked to them about the KPS agenda and I then began to talk to community groups as well.
The ideas behind KPS work can be a little tricky to communicate in that both teachers and members of the community are well versed in routine school projects. The notion that students could do useful work took a little time and perseverance on my part. Once we got a few projects off the ground, word of mouth and experience from the first couple of projects helped spread the message in the town. I found the work to be really enjoyable, particularly when the community group came back to the school full of praise for the quality and value of the knowledge the students had produced.

Here is a brief timeline of KPS work that took place at the school. The early projects served as pilot studies in terms of seeding ideas for KPS work in the school.

2002–2003 I had discussions with local business and community groups to explore the involvement of students in community projects. The SES project emerged from these discussions. I also explored with colleagues the enterprise education initiative that was being promoted by the federal government.

From these early explorations, a range of projects were undertaken: a welcome to Mt Isa package for new teachers to our school, a tie-dying project, the Healthy Breakfast Cafe, a rubbish and recycling project in the school, a school graduation and leadership package, an analysis of the local causeway problem, a Mardi Gras involvement project, a rock pop dance group performance and a local resources mining project.

Later, once I had received ethics approval to conduct my research, I approached and interviewed two teachers who had earlier undertaken the SES project and the local resources projects to gain an understanding of their reflections on the early KPS project work.23

2004 I took maternity leave, which, coupled with the usual turnover of staff in the school, meant there were no new projects initiated in that year.

2005–2007 Projects included a Japanese garden and a school garden.

2008–2010 This was the period of my data gathering. Projects included the Indigenous storytelling project, the Valley Visuals art project (both of these are

23 There is an account of the impact of this project on a student, Jordie, in the second professional article.
recounted in the next chapter); the Cowboys in the Classroom online project, the Waterways project, and a memorabilia project that was commenced and continued past the ethics approval window.

Conclusion

In conclusion, I present a summary of this chapter with a view to setting the scene for how my research findings will be detailed. In this chapter, I have attempted to trace the trajectory of my thinking as I came to terms with the ideas and sensibilities of ANT. The path followed was twisting, often tricky and at times wound back on itself as I struggled with early notions of ANT through to those associated with performativity. I kept to my initial inclination that to make the difference I wanted to make, I had to resist ways of thinking about KPS ideas that simply moved the work back into familiar, comfortable territory for me as a teacher and principal.

As I outlined in Chapters 1 and 2, my initial interest in conducting this research was to explore learning that was beyond the physical and/or logical constraints of a classroom. I had seen something of what students, given the opportunity, could do in carrying out tasks and producing outcomes that were valued by the community. I wanted to better understand just what went on when students were placed in circumstances in which their expertise and interests could shape and influence knowledge production with adults, their teachers and other members of the community. My outlook was clearly one of optimism and promise. What began to emerge from early pilot studies in 2003 was that this kind of work seemed to engage students who had been judged to be disengaged from schooling. Something was happening and I wanted to examine it more closely. This then led to a shift in my focus. I wanted to see if involvement in KPS work improved student outcomes and had an impact on student engagement.

I was drawn to ANT as a way to think about how to do this research because, as I examined the literature, ANT appeared to offer a robust way to look beyond the things and ways of thinking I had grown accustomed to in my work as a teacher and principal. I wanted to think differently about the taken-for-granted accounts of what is going on when students learn, what happens when students work in teams to tackle a problem, what happens when members of the community become substantially involved in the work of students and so on. While KPS work clearly disrupts the routine ways in which routine classrooms operate, I did not want to produce tidy
accounts that simply “explained” what happened in terms of the prevailing wisdom about work of this kind in schools.

As I worked towards developing an ANT sensibility, at the same time, I was thinking about the various collections of “data” I was accumulating. I found myself thinking a good deal about what I was doing and, more importantly, the significance of how I enacted my doings in a document such as this. Rimpiläinen and Edwards (2009) offer a useful account of the complexity of drawing on an ANT sensibility and the supposedly simple act of collecting data:

Observation, which can be seen as a purposeful sensory activity—seeing, hearing, touching, sensing, noticing, feeling—is being translated into a record of some description (a written note, audio file, a photo, video, drawing etc), usually into field notes. The act of writing observation notes is not only about documenting a situation and materialising the observed by creating an inscription that can then be moved from one place to another and shared with others, but they also need to make events “more available to thought” (Coffey & Atkinson, 1996, p. 153). The way in which these notes were taken and are made sense of is entangled with a larger set of assumptions and practices of making sense of the world as a whole. Thus the observation notes can also be taken in part as an enactment of the researchers’ professional practice, the hinterland of research practices. (Law, 2004) (Rimpiläinen and Edwards, 2009, p.6)

There is much more to be said about my data, which will be developed in the next chapter.
Chapter 4: Interfering in stories about school

Introduction

For a long time, perhaps since the inception of compulsory schooling in Australia, debate has reigned about what to teach and how to teach it in order to achieve the best educational outcomes for our young people. In this sense, my study has joined the debate, but with my amateur ANT sensibility, I am also interfering not just in these debates but also in the many practices that enact schooling, as many understand it.

What follow are two stories, two enactments of KPS projects that took place during my research. As I hope to show, the stories act; they interfere with conventional readings of these accounts. To recount my aim. I am interested in what happens when students in a primary school are given the opportunity to do knowledge work, to produce knowledge that has value in the community beyond school. I have used two place holders: one that reflects my initial curiosity about this work, the engagement of students that otherwise had been disengaged, and one that concerns the relationships, commonly called partnerships, that are a necessary component of KPS work. My main consideration, though, is to examine this work in a way that does not simply fold the familiar labels, terms and logics of schooling around this work. I was not interested in domesticating KPS work. I wanted to follow, within the limitations of my role as principal and researcher, the traces, entanglements and associations of the two stories.

When reflecting on the interesting and, at times, provocative findings from other KPS studies, it appeared they had received only passing research interest, however we find thoughtful accounts such as Lankshear and Knobel’s (2006) description of the KPS approach, as a “different pedagogy that is neither wholly ‘conventional’ nor wholly ‘new’: yet it bears visible traces of both tendencies” (p. 255). Other, similar accounts are recorded in an earlier chapter. In the same chapter, I examined the various literatures that inform the notions of student engagement and community partnerships. All of these approaches to my placeholders act. They do engagement.
They do community partnerships. They do KPS in schools. In this chapter, I want to interfere with these doings as I do or enact the two data stories\textsuperscript{24} of this chapter.

Armed with my emerging ANT sensibility, I wanted to take Law’s (2012) advice seriously:

First attend to practices. Look to see what is being done. In particular, attend empirically to how it is being done: how the relations are being assembled and ordered to produce objects, subjects and appropriate locations. Second, wash away the assumption that there is a reality out there beyond practice that is independent, definite, singular, coherent, and prior to that practice. Ask, instead, how it is that such a world is done in practice, and how it manages to hold steady. Third, ask how this process works to delete the way in which this sense of a definite exterior world is being done, to wash away the practices and turn representations into windows on the world. Four, remember that wherever you look whether this is a meeting hall, a talk, a laboratory, or a survey, there is no escape from practice. It is practices all the way down, contested or otherwise. Five, look for the gaps, the aporias and the tensions between the practices and their realities—for if you go looking for differences you will discover them. (p. 169)

The two data stories of this chapter have their beginnings in 2002, when, as a principal, I became curious about the notion of schools as sites of serious knowledge production. Projects that were conducted prior to ethics approval in early 2008 have not been included as part of my research. However, experience with these pre-ethics projects has influenced my thinking about KPS work. In many respects, they helped frame the questions of this study.

The two data stories reported in this chapter are the Indigenous writers’ project and the local arts project. Other projects I researched include an online football project and a local environmental project, which I have written about in the professional writing components of my folio. All of these stories have contributed to professional development resources, also part of my folio, that enable other educators to come to terms with the ideas and practices of KPS work. In particular, I have placed an emphasis on how KPS work can engage students, teachers and community, build local networks and foster meaningful knowledge production within their own communities.

\textsuperscript{24} After a lot of agonising, I opted for this term. In one sense, the stories contain “data” in the conventional sense, but I was particularly conscious that these stories were not simply bits of text that had no capacity to act.
The timeline of pilot and exploratory projects I worked on are detailed at the end of the previous chapter. What characterised them all were opportunism, good will and curiosity about what happens when these kinds of projects are undertaken. I used to think that all research was carefully controlled and planned. I came to understand that, unlike the reality of schooling, which is enacted by the practices of state and federal government bureaucracies that produce planned realities characterised by term dates, set curricula, timetables, resource planning and so on, KPS works while having to mesh with some of these practices, and has commonly had an opportunistic, unplanned character, particularly at the beginning.

The materiality of schools reflects planning practices. Classrooms of a particular size and with particular sets of materials support the timetabled comings and goings of students and teachers. Corridors, doors, windows, fans, desks, blocks of rooms, recreational spaces, and so on, all contribute to the enactment of school for each student and teacher (see, for example, Sørensen, 2009).

The stories that follow have been written from notes and interviews, and draw on collected artefacts from each project. Like each project, the collection of data as I have mentioned was, at times, opportunistic, reflecting the mesh of my two roles of principal and researcher.

**The Indigenous stories writing project: telling tales out of school**

A brochure about an Indigenous writers’ competition titled “Me, Myself, I” arrived in my in-tray at school. I read it and wrote on the top corner “Lit committee” and tossed it into my out-tray. I thought it seemed like a worthwhile idea but referred it to the literacy committee to share with other teachers to gauge interest. From the out-tray, the office assistant sorted the mail and placed the brochure into the relevant literacy coordinator’s pigeonhole. I looked at my journal notes of that day and my first thoughts: “Interesting but is it core business? Will teachers have time for this with other curriculum and assessment requirements?” With so much demanded of the teachers, I decided to leave discussion of the competition to the literacy committee to share and determine if there was any interest.

The role of a principal in most schools is something akin to Callon’s (2007) notion of obligatory passage points. At some point or other, literally everything that wants to find its way into the school has to find its way across the principal’s desk. Most of
the material of this ilk can be described as immutable mobiles, a term coined by Latour (1987). Perhaps not as grand as Latour’s charts, tables, maps and figures, these inscriptions of any kind facilitate travel over time and space while retaining their form and shape. They are aimed at allowing the centre to act at a distance. Education Queensland, the state government bureaucracy that manages Queensland schools, makes considerable use of such devices. The other point about immutable mobiles is that they are also combinable; they have a tendency to become detached from their origins.

The brochure, an almost\textsuperscript{25} immutable mobile, was looking for recruits. It invited participation in a competition. As a genre, competitions have become a frequent component of my in-tray. I let the brochure fend for itself. In a later staff meeting, teachers from the literacy committee shared the information about the competition and showed the brochure to teachers at the meeting. There seemed to be some interest from teachers: questions were asked and one teacher took a copy of the brochure. The brochure now had a small, loosely coupled network of interest. The interest came from enthusiasm to support the writing skill development of Indigenous students in the school. To enrol allies, or add to its precarious network, the idea has to move, to adapt. It was now a brochure that held a promise of helping Indigenous students in the school with their writing.

A week or so later, when I assumed the interest in the competition had waned, I took a phone call from the organiser of the competition, who encouraged interest and involvement in the competition. The woman, who knew me from my work in other remote schools, asked me to follow up on the matter and encouraged me to talk to some local families and to my Indigenous staff, who she also knew well from her work in our school as well as through family networks. I found myself somewhat more attached to the brochure/project.

Following the telephone conversation, I held an informal meeting with an Indigenous staff member and the teacher who had expressed interest at the meeting. It seemed they were both keen to get involved with the competition. The teacher suggested children could listen to the stories of elders to give the students a sense of what this part of the world was like when the elders were growing up in the area.

\textsuperscript{25} After my scribbling, which is, in Latour’s terms, evidence of its combinability.
They (the teacher and Indigenous staff member) decided the children could write narratives based on these stories. It was decided that the Indigenous education worker (IEW) would liaise with Aunty M., a local Indigenous elder, and then meet with the teacher to decide on the details of the visit. The project continued to add allies. The project was imagined as taking place in a similar manner to other projects like it, that is, bringing expertise into a classroom to provide students with source material they otherwise would not access.

From the initial meeting between the IEW and Aunty M., the Indigenous students and families were identified for involvement. The project shifted significantly in order to recruit the cooperation of the Indigenous storytellers. Only some students would attend the activity. Following negotiations with Aunty M., the IEW told the project teacher which students could be invited to the storytelling day.

I met with some of our Indigenous community to discuss the selection of students and the arrangements for the storytelling day. I made notes and mapped out a socio-gram of the family connections. My mappings made it clear that the elders attending the day had family connections with the children in the writers group and were eager to share their knowledge of local cultural histories with the students.

I remember the teacher recalling that he had quickly lost control of the unit. He told me how he had envisaged the elders coming to school, telling some stories and getting the students started on their writing. But, as it happened, in the first meeting with elders, they would not hear of storytelling taking place at school. Stories can only be told in storytelling places. A visit to a significant local storytelling place was organised. The organisation of the event was done by the elders. The logistical aspects, such as permission slips and risk assessment, were done by the teacher and school administrative staff.

The project shifted further and further. Some students were excluded. The location of the event moved outside school boundaries. More allies were brought into place. They were well rehearsed in managing activities outside of school. Teacher release time from class activities, arrangements for attending the excursion, timetabling for teaching the specific Indigenous group and release for planning with the advisor occurred more or less routinely. Timetables and memos regarding arrangements were emailed out to other teachers affected by the event. Each week at staff meetings, the project class teacher kept staff up to date with what was happening. Maintenance of a
network of associations had to be policed, looked after and kept up or the project would fail.

Other, almost incidental associations emerged as the project developed. Prior to the excursion, the teacher was involved in a curriculum-planning day with the advisor. The plan was detailed but broad enough to allow for student and community input and negotiation. It used “essential learning statements” to plan or at least document the learning that would follow. Following the planning session, the advisor told me she had known this teacher but not realised how good he was. She told me that she had already heard from some of the elders, known through her work in other school communities, that this teacher was doing some good work with their kids.

I came to think about what was happening as a kind of mesh or entanglement of what Law (2004) calls hinterlands. On the one hand, there is the hinterland of the school and, on the other, the hinterland of Indigenous storytelling. The term hinterland derives from Law’s discussion of Latour and Woolgar’s (1986) ethnographic study of a scientific laboratory. A hinterland, as he puts it is:

a bundle of indefinitely extending and more or less routinised and costly literary and material relations that include statements about reality and the realities themselves; a hinterland includes inscription devices, and enacts a topography of reality possibilities, impossibilities, and probabilities. A concrete metaphor for absence and presence. (p. 160)

I will develop this notion of Law’s through this chapter. The term is a useful device to draw attention to the bundle of relations we call school or schooling and, to me, the much less familiar hinterland of Indigenous storytelling. The teacher working on the writers project came face to face with one of the impossibilities of the storytelling hinterland: place, as he discovered, matters. He described it like this:

Aunty M thought we should go out to Sybella Creek, they came up with who would tell the stories ... Aunty M wants us to sit under a gidgee tree\textsuperscript{26} and boil a billy ... Go to a place, see a waterhole that never dries up and she says this place is the life blood of the people that were living there. I think Aunty M is really keen to take our kids out ... I think she considers our kids ... are removed from their culture. They want to tell stories about droving days or ... their childhood days. Aunty M worked out the kids and when I rang the

\textsuperscript{26} A member of the Acacia family with a characteristic odour that vaguely resembles the odour of boiled cabbage.
families they also asked who was going and would be telling the stories before they gave approval. ...

(Teacher transcript)

Who tells the stories, who can listen to the stories, where the stories can be told and how the stories are told are all markers of the possibles and impossibles of what I have tentatively called the Indigenous storytelling hinterland. In dealing with these considerations, the teacher looked to articulate what was going to happen on the storytelling day to the hinterland of the school. The teacher told me he was keen to plan the work, trialling the Queensland syllabus essentials, and asked for some curriculum support. I spoke to the curriculum coordinator and she sought help for the planning session from one of the district advisors, who had received professional development in relation to the QSA’s Indigenous perspectives strategy, specifically, *Embedding Aboriginal and Torres Strait Perspectives*.28

**Hinterlands and storytelling**

The excursion to Sybella Creek happened.29 The day was a mix of oral storytelling about childhood experiences, storytelling from rock paintings, storytelling about the children’s families and experiences while walking among the rocks of the creek bed and eating bush tucker prepared by the elders. The materiality of the event could be easily dismissed as just another excursion site in the bush, somewhat analogous to Pasteur’s relocation of his laboratory to the farms with which he was working (Latour, 1988). Similar enactments that position Indigenous practices as variations of Western practices with allowances or adjustments to cater for Indigeneity are now common in education. Enacting the Western classroom in the bush is a good example and one to which many of the non-Indigenous actors contributed. I do not want to judge the rights and wrongs here; rather, I want to tease out the complexity and messiness when different realities come together at a particular site.

As Law (2004), drawing on the work of Helen Verran and David Turnbull, argues:

> few Euro-American assumptions about representation and reality hold in Aboriginal cosmology. There is no universal reality. Realities are not secure but instead they have to be practised. And the world is not passive, waiting to

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29 I was unable to attend and had to rely on notes from the teacher, interviews after the event and photographs.
There is little in the hinterland of schooling that comes close to this. When I look over the notes, transcripts and photographs of the day, I see representations of practices that might be said to enact classroom realities juxtaposed with, what I take to be, representations of Indigenous realities. I am particularly conscious of my limits in approaching an issue that has been at the heart of Australia’s attempts to support/deal with the country’s Indigenous peoples. Here, the notion of knowledge making or production helps contrast the two positions. Much of the educational engagement with the Indigenous peoples has been enacted as knowledge about Aborigines. Thinking about the Indigenous as knowledge makers, however, opens up a complexity, something Verran (1998) calls the imaginary. She writes:

Aboriginal Australian peoples generally understand themselves as having a vast repertoire by which the world can be re-imagined, and in being re-imagined be re-made. In English this usually goes under the title of “the dreaming”. I think a more helpful name for this conceptual resource is “the ontic/epistemic imaginary” of Aboriginal knowledge systems. (p. 242)

A common, Western enactment of the dreaming is to locate it with folk tales, perhaps even within the realm of fairy stories. Representations of the imaginary can be found in art forms that range from paintings to “tourist art” such as tea towels, coffee mugs and decorated boomerangs. Western enactments of Indigenous knowledge systems and their stories work to effectively domesticate and render harmless the knowledge repertoire that Verran points to. Telling stories, as Turnbull (2005) argues, a primary means of meaning making and identity creation: “To tell a story is to organise things in space and time and vice versa; to reference or factor events and people temporally and spatially is to construct a narrative” (p. 767).

Turnbull (1997) argues that all knowledge traditions are spatial in that they link people, sites and skills. I am so rehearsed in the knowledge traditions of “normal” schooling that it requires effort to remain open to knowledge traditions that are different. As the day unfolded, the elders’ knowledge of the site and their skills in teaching students how to read rock paintings and participate in the practices associated with storytelling became apparent, even through the limitations of notes, photographs and participant recall.
I recall the teacher reflected that when he talked to the families and elders about planning the storytelling day, the grandfather said, “That’s good because I can show ’em the rock paintings. They tell stories too.” I come back to Turnbull’s (1997) point about local knowledge:

In addition to the obvious moral about the desirability of recognising the power of local knowledge, what the previous stories show is that we need to rethink what knowledge is. In no case does it come out looking like the standard Western notion of information. In all the examples considered here it is a complex heterogeneous blend of knowledge, practice, trusted authority, spiritual values and local social and cultural organisation: a knowledge space. What this suggests is that the salient difference between the orthodox account of science and that of comparative knowledge traditions is that the former is couched solely in the representationalist idiom while the latter insists on the inclusion of performative idiom. (p. 560)

What, in a schooled account of the day would have been simply categorised as an excursion was an enactment of a knowledge space, something that would not have been possible in the knowledge spaces of a school. Bringing together the two, different repertoires of storytelling produced interesting moments, as the following photograph indicates.
The teacher lends a hand and finds a seat for the students.

It is difficult to write about the modest blurring of boundaries that took place on the day. I am reminded of teachers and helping parents moving seats in assembly rooms for meetings but, here, the materiality went beyond the utilitarian. I did not know what the protocols were. I did not know if the teacher did either. The hinterland of Indigenous storytelling had already shaped a good deal of the day. I had to rely on accounts from the participants.

I asked some of the students about what they learned from the storytelling day. I asked them how they shared what happened with their family and what they thought of this type of learning. I was puzzled by the way they were able to negotiate the two hinterlands of formal schooling and Indigenous storytelling.

_Researcher: How did you get the idea for your story?_

_Student 1 (S1): When we went out bush out to Sybella I starting thinking about the Willie Wagtail\(^{30}\) and it just came up in my head. Well, when Grandad said the Willie Wagtail said that the last trough (water trough) is leaking, so we better go and fix it. And so we drove and went all the way to the last trough and it was leaking and we had to fix it. Grandad just told me but I didn’t really believe him but it was._

_Researcher: So this is how you got the idea for your Willie Wagtail story?_

_S1: Yep._

_Researcher: Have you been talking to anyone at home about your stories?_

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\(^{30}\) A perching songbird native to Australia and countries to its north.
S1: Nup, but Grandad said “it was a little smart bird” and, he said, “it was a nice story”.

I am aware that Willie Wagtail, like most of the fauna native to Australia, is part of “the imaginary”. It is difficult for me to write about how these children negotiated the doing of the imaginary and the writing task that was part of the hinterland of schooling with all of the rules and dos and don’ts of good writing: what can and cannot be written in a grammatical world compared with what can and cannot be written and shared in an Indigenous ontology.

Student 2 (S2): Yeah with my aunty, and I told her about my story, and then she gave me some ideas and then I told her about my idea about some kids going hunting out bush.

R: Is this sort of work different to other things you have done?

S2: Yeah a lot different because back in (named another place) we never got a chance to go out bush. Yeah I really enjoyed it.

Researcher: What else would you like to do?

S2: I’d actually like to go and hunt something and then we could cook something and sit around and tell stories.

(Student transcript)

The boys get the billy out for lunchtime.
Aunty gets the fire set up while the boys watch on.

Aunty makes johnnycakes over hot ashes.
My captions for each photo sit squarely within the domesticated accounts of an excursion that takes place outside a school. I have little access to the complexity or rules, customs and protocols that operate in the enactment of any Indigenous imaginary.

As they prepared food, the students, family members and the teacher sat and listened while the elders talked about their memories of growing up in the local and surrounding region.

_Elders 1 (E1): You kid lucky you got education now. Our mob manager used to keep us for work, to look after the house. You kid (directing talk to the students) lucky you got education now. We used to go hunting every day for our food. We went bush, hunting every day. Kangaroo, fish, goanna. We would go out in the bush hunting... our grandparents to make grass for bed and cover us up with tea tree, we never had blanket. And live in humpy. And we would work for white men. Today I look at my kid and they got education and I thank God for what they got. They go to ... school.

We used to hunt and go up the river, fish. ..._

_Teacher (T): What sort of fish?_

_Elders 2 (E2): Catfish, Barramundi, Diramindi (own language to describe a black and white fish), cod, turtle (I still eat turtle out the dam). I used to get up in the morning and my boss, the manager, he would whistle to me. I would get on my horse and away I’d go. If we didn’t listen we’d get flogg’n from white man and our mum. ... We never got pay but 3 meal a day. But we didn’t know people got paid. I don’t worry about money._
T1: Did you ever have any accidents on the horse?

E2: No you got know how to ride the horse. You gotta fix yourself with the bush medicine.

E1: We don’t own the land. God put us in the land to look after the land. That what I always tell my kids. We don’t own the land.

T1: Did the managers that came did they teacher you about the bible?

E2: No the missionary they would travel and teach us. Then we came to know what the lord can change you. But we used to live like that, you know, no clothes,… use the leaves for clothes. You know cover the (traditional language word).

E: all laugh.

E1: My grandchildren can’t even cook turtle, goanna. They don’t know how to clean it, you gotta eat that. ...

T1: How would you cook it? What would you do with a kangaroo?

E1: You can make a big hole like...

E2: make a big fire. ... If you wanna skin it you can ... Old people used to put it in the ground for us. You can cook 'em on the coal anyhow you want. How you wanna cook it, you know. The tail that the best part.

T1: What would you do now like with a sheep or whatever?

E1: See that gidgee there, that gidgee leaf, chuck that leaf on the coal there and that kangaroo, bit a kangaroo meat. That’s the flavour. That’s the gidgee leaf.

T1: So put the green leaf on top of the coal and then...

E1: Yeah but not that green pod there, that’s poison.

E4: You’ll smell it?

T1: Oh yeah yeah. I can smell it.

E2: Yeah it kill a bullock that one.

T1: Oh ...

Elder 1 (E1): See this ground here this was our medicine.
Elder 2 (E2): Never got sick in the bush, never. Used to live on bush medicine. ...

E2: See this little girl here (referring to a student), grandmother used to live on the Georgina (River), ... all ’em old people used to live all along that river, big camp there.

...

E1: West End and Snake Gully, that’s where your mother was brought up.

Parent: Yeah in the old tin shed.

(Transcript)

Everyone listened to the “aunties” tell about their history, their families, and the importance of these local places.

When I read the transcript of the account of the history of this Indigenous clan over the years of engagement with non-Indigenous people, I resisted the urge to domesticate the account and left it more or less hanging, in a kind of ontological tension with the myriad published accounts of events like this that took place all over Australia and that continue, in muted forms, to this day. I am drawn to try and think along the lines Verran (1999) did when faced with a similar ontological clash, and try to learn to laugh at certainty. Her experience of the teaching of mathematics and science in Nigerian (Yoruba) classrooms led her to a position in which she argued that bilingual Yoruba children were able to work with the ontics of the two different knowledge systems of English and Yoruba. She went on to posit that the opposing ontologies are not necessarily hostile to the other:
In subverting both English and Yoruba in working them together, blending accepted routines of collective acting in ways that both retain the certainty and reveal the origins of that certainty as located in routines, repetitions and rituals, Mr. Ojo’s lesson is a revelation. We experience the certainty at the same time as we experience something else: the amazing hoax of certainty. This laughter, the disconcertment, is vital for it is in that that we can know ourselves as participants who tell stories as part of our participation. Staying true to that laughter will give us better ways of telling true stories in responsible ways. (p. 151)

I return to my data. One student recalled the day in this way:

_In the morning on the 4th of June Annie, Ellie, Jake and I were waiting for Ms A to arrive so we could drive to Sybella Creek._

_I was so excited to be going there, I just couldn’t wait._

_When we got to the creek everybody walked around looking for firewood, and once we had collected enough we helped Aunty M start a fire. While we were starting the fire Mr P had found a log for us to sit on._

_Then we sat down and listened to Aunties’ stories._

_They told us of when they were slaves of the white men, and that they did all of the cleaning, and how they had to wash the man’s feet and face, and how they had to do all of those things with nothing in return._

_They also told us of when they were children and they had lived out bush._

_They told us how they had found medicine plants and food._

_While we were listening to our aunties’ stories, Aunty M had cooked rib bones, bread and damper over the fire._

_Then everybody ate, the food was delicious._

_Then Aunty M asked everyone the name of their parents and she knew every single one of our families._

(Student journal)

The teacher’s account of the day includes the articulation of the activities of the day with planned activities to follow at school:

_We wanted to make some recordings of the elders and we wanted to use those recordings to use as inspiration for their own stories, but the recording didn’t work so we had to rely on our memories of the experience. But we got a fair few photos and I’ll put them on G/Drive and so then we came back we did some brainstorming of what we remembered or experienced. Then we did a basic narrative plan—like introduction, complication and resolution._
students were familiar with this structure and then the students wrote a first draft. .... Most of the students have chosen to do a narrative but one student did a recount of the day. .... They (elders) told a lot of stories and then Aunty M turned it back on the kids and got them to tell stories. That’s when Brandon told his story of the “Willie Wagtail” on the day, because they were talking about their connections with land and animals. And now he’s going to write that as his story. Another student, whose family has just moved back to the area, is trying to reconnect with her family and was asking lots of questions on the day. Her mum came on the visit too. Her story will be one about her visit to her relatives for a funeral, being told as a narrative.

(Transcript of conversation with the teacher)

The rules, the protocols of the hinterland of schooling begin to enact “the day”. The events are cast as resources for the writing of the students who participated. A different kind of story that draws upon the storytelling practices and protocols of Western education is to be told. Of course, there are overlaps between the two traditions of storytelling, but they are different. They have different ontologies. No amount of domestication in the classroom can change that.

What also struck me was the different materiality of the two hinterlands. What is necessary in order to do school is a large collection of rooms, walkways, black and white boards, books, computers, desks, chairs, and so on: a very large amount of stuff, all of which we simply take for granted as school, but all of which shapes, limits, allows and constrains what is done. I do not have access to an equivalent sense of the materiality of the Indigenous storytelling place. On the face of it, it seems to have a lot less stuff. Such an observation, however, renders the land, the place of storytelling, to just nature when, in the Indigenous storytelling hinterland, every component of the land, the rocks, trees, flora and fauna, the creeks and so on, all shape, limit, allow and constrain what is done. The two hinterlands have a different set of logics in play. A useful distinction is made by Turnbull (2007) who, in addressing the issue of Indigenous and Western knowledge practices, posits that:

All processes of knowledge generation are based in the dynamics of movement through space, and of change over time, but how those dynamics are conceived, lived and represented vary between traditions, cultures and eras. In many of the western scientific traditions such spatiotemporal dynamics are largely rendered invisible by the ways that knowledge is conceived, in objectivist, representational terms, as abstracted and unified. (p. 141)
The knowledge that is worked with in school, in the main, may be seen to be of this form. The data and observations that follow from the work that took place in the classroom might be said to conform to the Western traditions Turnbull describes. He continues to usefully elaborate the notion of knowing as movement. The association of learning with following a path is reflected in the common use of terms such as learning journey.

Knowing is a form of travelling, of moving through space; and travelling, like knowledge, is also a form of narrative. . . . These terms, which are central to knowledge and to the dynamics of its generation, indicate that they all had their basis in the idea of active work, and of moving through space, cognitively and physically. The elements of activity, work and movement are now almost absent and invisible, as evidenced in our constant use of terms like “method” or “way” without realising they literally mean paths or trails. (p. 142)

While it is easy to become enmeshed in particular metaphors, particularly those associated with knowing and learning, I note that, from my limited knowledge of Indigenous knowledge practices, movement, trails and paths are an intimate part of how knowledge is enacted. In contrast, the notion of learning as a journey is more of a descriptor, a label to hang on the various practices that are associated with the enactment of knowing in classrooms.

What follows is an account of what took place in the classroom after “the day”. The production of knowledge in a classroom, as in a laboratory, follows a given set of protocols. There are things that can be said and thought about and things that cannot. For this work, the classroom, like the laboratory, is geared to produce an end product, a story, a paper, a performance, a picture or, more recently, some kind of digital artefact.

Back at school, the students met up with the project teacher and shared their experiences of the day, discussing what ideas or experience they might use to write their narratives. The first drafts were done quickly. From here, the teacher used his teaching plan and an analysis of their written drafts to decide what elements would improve the student writing, such as grammatical features and skills of expanding description through nominal groups.
A student works on extending nominal groups within his narrative.

The teacher who worked on the project enjoys teaching English and has done a good deal of professional learning about grammar and the teaching of writing. He told me that sometimes these lessons could be a little boring for students, but that “the day” meant they all had a lot to use and talk about during these lessons.

Students work on extending nominal groups.

The teacher was very explicit with his instruction and the lessons were challenging. However, the students responded in good humour and engaged with the teacher and with the content. The lesson transcript below illustrates his approach, his use of humour and references to the experiences at Sybella Creek, all the while keeping a focus on grammar.
Teacher (T): If you’re reading a story and it just says the tree, you’re not really giving the reader much information are you, whereas if you can write the “Last great gumtree” it sort of gives it a bit more feeling, doesn’t it J?

Student (S): Like you want its autograph Sir.

T: Ok so you want to go out and get its autograph (laughing together)

Yeah, or the “three tall gumtrees”, we know now there is a group or trees or that

S: They’re thin gumtrees

T: Yeah so it invites the reader into your story a bit more and into what you’re imagining but if we can’t always give our participants (noun groups) these descriptives, for example, if our participant is “Brandon” it’s hard to add it in to these things (referring to the work sheet) like “The very tall Brandon” but it doesn’t always work.

Ss: All laugh

T: So we don’t always need all these descriptors every time because it can get too wordy. Now look down at these examples (refers to a work sheet)

(Teacher reads from the sheet). An extremely dangerous alpine routine...(teacher looks up as student raises hand—gesture to ask a question) Jake?

S: What’s qualifier?

T: That’s interesting we were just about to get to that. The first one and last (referring to exercises on the worksheet) both have a qualifier at the end of it. OK Brandon can you read the first one. ... “The car which came flying down the road. ...” The thing is the most important part so the stuff that’s coming before the thing is the pre-modifier and the part that comes after is the post-modifier. Annie can you read what it says about what a qualifier is.

S: Reading the sentence, the qualifier uses a clause to give more detail about the “thing”.

T: We could say that “which came flying down the road” is a clause on its own because it has a process (verb group) but we don’t call these clauses on their own because they’re embedded clauses they are part of the participant (noun group) and that adds more information into the “thing”.

(Teacher transcript)

Later they returned to the description activity of the gumtrees, which drew on the students’ experience of the day at Sybella Creek. As I reread these pieces of transcript of classroom conversations, I have a general sense of inadequacy in being
able to bring to the account the complex, nuanced, path/space-dependent stories that the children listened to on that day. Drawing on David Turnbull (2007) again to emphasise the point:

What nearly every culture seems to share, in one form or another, is the recognition and celebration of the hodological or topokinetic in their mythologies, ontologies or epistemologies, and especially in their stories, songs and maps. This commonality is based in the connectivity of trails—the creation of meaning through marking and linking . . . Telling a story and following a path are cognate activities, telling a story is ordering events and actions in space and time—it is a form of knowledge making. (p. 143)

The sense of knowledge production that Turnbull brings to my account was unexpected. The knowledge of which he writes is largely unfamiliar, only accessible via his and the work of other scholars who work in the field. A different set of understandings of reality underlines what takes place in the classroom. The emphasis here is on the correct use of written language to generate correct, engaging and interesting stories. In the hinterland of the classroom, you have to work on making the story come to life. I have a sense that, in the hinterland of Indigenous storytelling, the prompts and cues for each story come from the materiality of the place where stories can be told. It is not a matter of equivalence that I am grappling with here, but one of difference—difference that only appears when days like the trip to Sybella Creek occur.

T: You guys are awesome at adding good description. So let’s have a look at the gumtree again. So we started with the tree, I’ve got “three gumtrees”, remember we were talking about post-modifiers . . . “wind moving” so you’ve got “The last great gumtree down by the creek”. ...

S: I’ve got one but I don’t know if it makes sense.

T: Go on just tell me

S: (Gestured head down—unsure—but trying to write on the worksheet)

T: No you don’t have to write it. Give us some ideas.

S: The last great gumtree was swaying from side to side

T: Fantastic. You got a great one but you’ve missed a really important word “which”

S: (writes it into the worksheet with “which”)
T: Remember “The fast race car which came flying down the hill...” because the word, which meant you embedded that clause and then you could add the rest of the sentence after, so what could it do now?

S: crashed.

T: yep (waiting for more answers)

S: rolled

T: yeah rolled, it could have rolled into something. We don’t want it to roll into that “last great gumtree down by the creek”.

Ss: No (laugh)

(Teacher transcript)

There were, however, moments when students had to negotiate between both hinterlands. The student who wrote “Willie Wagtail” was encouraged by an elder to tell his story. He told his grandad about it and then he wrote it at school. This is his work:

**Willie Wagtail**

*Back when I was a little child, my Grandad was cooking up eggs when my Grandad woke me up and said, “We have to go to the last trough and fix it or the trough will keep leaking and it will break.” When the trough breaks Mavis will be angry at me because this is her land.*

So Grandad and I were trying to fix it. As we were trying to fix it all the cows were watching us fixing it because I could see them real thirsty. All the pigs, the horses and the cows were lying down watching us trying to fix the trough. It took us about an hour but we still had fixed it.

Then I told my Grandad that I was going to get a drink of water from the clean big tank we had. After my hand was full of water I told my Grandad that I was finished getting a drink. So Grandad and I were heading back home to Rocky Glen. While we were heading there, we saw the Willie Wagtail was flying next to us the whole way back.

That next day when Grandad was packing up to go, we saw the Willie Wagtail again. So my Grandad went up to give the Willie Wagtail a piece of meat that we had cooked last night. Then we cruised back to town and we saw the cows and pigs and horses drinking out of the trough that we first fixed while on the way to Rocky Glen. We then moved to town and we saw him again just before we hit the road. I said “Grandad, I reckon that little Willie Wagtail is smart.” And now every time we go out to the Rocky Glen we always see a little bird next to us. And that’s where we met the Wagtail.
Some of the stories the children wrote were drawn from the elders’ memories of their childhood experiences, stories that were not known by the children until the day at Sybella Creek.

Here are two further extracts of stories that students wrote, drawing on the stories of the elders:

**The Story of Wayne**

*Back a long time ago there were three kids Monty, George and Wayne. They were sitting around the campfire telling stories and their grandmother told them to go and hunt for food. Monty tells them to be quiet and listen for food and George says “Ober there big goanna”. Wayne chases him into a bit of land they have never been before. Monty tells them to stop but Wayne keeps chasing the goanna and he runs into a man that he had never seen before. His skin was different to his; he thought it was a ghost.*

*Monty and George looked for hours, after a while their grandmother sang out to them. George said, “We can’t find Wayne.” Their grandmother said, “Go look for him.” But they said they already did.*

*Wayne was scared of the white man and he tried to run but the white man was too fast. He took him in his car and drove away. The white man drove for hours until he got to a town. Wayne didn’t know what to do when they got there. Wayne could see through a crack in the car. There were two white men on the balcony. One of them said, “How are you doing Michel?” and shook his hand. Michel forced Wayne out of the car and two ladies grabbed Wayne and took him into a small house.*

**The Lost Life…**

*“Let’s go kids” said my pop as he was loading up the car. My 3 sister were coming too with my 2 brother. Vanessa, Jasmine and Sarah are my sisters my brothers Ben and Sam are all older then me. “Let’s go Ashley” Ben yelled. Ashley came running down the stairs. When they got into pop’s car her pop started to sing old songs as he drove.*

*It was getting darker by the minute. When they got to the camp Ben and Sam went to go get wood for a fire. Sarah, Jasmine, and Ashley went into the car to find the Billy water. When Sam and Ben got back with a lot of wood their pop said to make a fire. Sam got wood stick in his finger, then it was started her pop said ‘now Sam at your age we had to go out bush and hunt for ourselves.’*
It would be simple to draw attention to the stories and their quality or the standard of writing as an indication of how well the day at Sybella Creek had worked as a resource for students’ writing and knowledge production. I want to note in passing that, within the sensibility with which I am working, writing in a classroom is an ordered practice (Law, 2012). Writing generates stories—representations that depict realities. The putative realities are being assembled in a manner constrained by the protocols of the writing classroom. If they were being written in an Indigenous classroom, they would be assembled in other ways. Of course, there are many ways in which these realities might have been assembled. The next section of this chapter explores the notion further. At this point, though, it is as if there is a kind of shadow hinterland that is always present but rarely visible, the one with which I am least familiar and which is so easily hidden by the day-to-day practices of doing school.

News of the student-writing project spread informally through the staff. There was a good deal of interest in the stories and the quality of the writing. Among those whose interest was piqued was a beginning teacher at the school. She asked if she could work-shadow the project teacher during one of the writing lessons.

During the work shadowing, the two teachers discussed planning and scoping of the teaching. The following transcript is an extract from a conversation between the project teacher and the beginning teacher that emerged from the beginning teacher trying to clarify how the project teacher got the students to that particular point. She wanted to know about organisation and planning, and use of resources within the school—all the practical aspects. I have included this sub-story to emphasise the ways in which storytelling/writing in the classroom is enacted. The account that follows would not be unusual in many schools.

This is a copy of the functional grammar work sheet referred to in the following discussion. It lists the grammatical features of a nominal group.

**Nominal Groups**

(Participants or Noun Groups)

<table>
<thead>
<tr>
<th>Pointer</th>
<th>Numerative</th>
<th>Descriptor</th>
<th>Classifier</th>
<th>Thing</th>
<th>Qualifier</th>
</tr>
</thead>
</table>

31 Like that at Sybella Creek.
While watching the project teacher work with individual students during this lesson, the beginning teacher used the sheet to clarify her understanding.

*Beginning Teacher (T2):* If I said the black humpback whale that would be describer and classifier?

*Project T (T1):* That’s right yeah.

And later, after observing the teaching and talking with the students, the beginning teacher asked the project teacher about the teaching processes and organisation around planning and practice.

*Project Teacher 1 (T1):* Do you have a copy of this (nominal working sheet as in photo above) because it’s a pretty good way of smashing (meaning achieving) it? But they have to be able to identify all the parts of the story first.

*Beginning Teacher (T2):* Yeah. So they (referring to students) have to write their story first don’t they?

*T1: Yeah, yeah and that, see and that’s what, in those writing processes… Have you got a copy of the writing process or whatever? From the literacy team?

*T2: Yeah it’s up on the … (both looking at the computer with gestures to G/Drive for staff curriculum materials.)

*T2: Yeah it’s up on the blackboard.

*T1: And there’s a part where it says proof reading.

*T2: Oh yeah.

(Teacher transcript)

Not long after this, the organiser of the competition rang asking about progress on the story writing. At the time, the stories were not completed to the satisfaction of the students! This attitude to quality, particularly when students know their work is going to be seen or used by people outside the classroom, was a common attribute of each KPS project. What impressed me was the pride each student showed in not wanting versions of their stories with which they were not completely happy to be made public.

The teacher and the Indigenous staff talked to the students. The students were very clear that they did not want to send them until they were finished properly. The organiser remained persistent and seemed most anxious to have some pieces of
writing submitted for the contest. That did not happen. The students continued to work on their drafts. When they were happy with what they had done, they invited the elders to school to hear their stories.

I want to return to the notion of hinterlands, of the hinterland of classroom storytelling/writing and that of the hinterland of Indigenous storytelling. The students involved in the story-writing work appeared to negotiate both sets of protocols comfortably, much more so than the adults with whom they worked. Importantly, when students and teacher move from one hinterland to the other, the transition, I suspect, is a crucial part of what I have observed with all of the KPS projects. Put simply, the rules, ways of working and protocols change. In some cases, the change is not dramatic, but it is sufficient for students to realise that the constraints are now different. In this case, the two hinterlands are significantly different. The teacher’s observation of feeling a loss of control reflects the difference. The two bundles of “indefinitely extending and more or less routinised and costly literary and material relations that include statements about reality and the realities themselves” (Law, 2007b, p. 160) offer a stark contrast in their different modes of knowledge production and reproduction. What is clearly apparent is that the students in this and other KPS projects navigate somewhat seamlessly between both spaces. They are well rehearsed in the hinterland of the classroom/school and appear comfortable in exploring the options in new hinterlands. This appears to be the case because new hinterlands do not have the same constraints and restrictions that they encounter in the classroom.

The second characteristic of these new spaces, if I can use the term space generically, is that the different hinterlands give students access to adult judgements that are often absent in the classroom. Student work in a classroom tends to have an audience of the teacher, occasionally their parents, and their peers. KPS projects, by design, generate new, different adult audiences. In my experience, the judgements they make about the quality of a piece of work has been different from those made by teachers. It appears that the combination of working in a new, different hinterland, which is linked to the judgements/appraisals of other adults, can be a potent mix, particularly for students who are disengaged a lot or even somewhat.

In the following section, I build on this approach to thinking about KPS work through an examination of another KPS project: the design, development and
production of a community art exhibition. Here, I will argue that students will work across a number of hinterlands, perhaps not as dramatically different as in the previous case but sufficiently so to produce high levels of student engagement and high-quality learning outcomes.

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**Valley Visuals art project: tales of engagement**

All the KPS projects I have observed tend to have almost accidental beginnings. They also have to negotiate the planning instinct of teachers, which at times can be strong. In August of 2009, a teacher and I attended a two-day KPS conference in Brisbane called Beyond the Fridge Door. It was a gathering of teachers from schools across Queensland who had been working with KPS ideas, developing projects and participating in research. We listened to other teachers and school administrators talk about the type of KPS projects they were trialling in their schools. I had chosen the teacher to accompany me because she had been curious about and interested in the KPS work we had been doing at the school. We began to have a conversation about projects she had been thinking about as a result of the conference conversations. The teacher had a strong background in the visual arts, and I was not surprised when she began to discuss the possibility of a project in which she could make use of her expertise.

When it came to any KPS project in the school, my mantra was always “all attempts are accepted”. We began to discuss some of her ideas. She suggested organising an art exhibition and the project went from there.

In primary schools, the arts can be perceived as fringe work—not core business. However, there is also much to support the argument that the arts are very much an integral part of developing higher-order thinking. Richard Dreyfuss,32 for instance, argues that involvement in the arts creates:

> a well rounded mind. Dreyfuss suggests that when embedded in a task, students learn from the inside out rather than from the outside in. Such figuring out requires critical thinking, analysis, and judgement; students tend to stay on task because they are creating their own world, not replicating someone else’s. Being able to think independently is the basis of creativity. It

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32 In a speech at the 38th Annual Grammy Awards February 29, 1996.
is also an engaging way to learn. The arts invites students to be active participants in their world rather than mere observers of it.

(as cited in Jeanneret, 2009, p. 17)

In my mind, the project was a combination of two fringe categories, KPS and the arts. I noted that it would be interesting to see how it developed. What follows is an account of the development. As was the case for the previous account, it is assembled from my notes, transcripts of recorded conversations and classroom observations. From these more or less ordered practices, I generate a representation that depicts a putative reality of the project. Like the Indigenous storytelling project, the art project brought together a number of hinterlands, which, as will be clear from the data, opened up opportunities for students to demonstrate skills and take initiatives that were not typically available in the hinterland of the classroom.

The first notes in my journal about project planning were taken at a meeting with the project teacher about how to get started:

*Art Exhibition*

- Looking for people, contacts in community
- Who can help
- Annette, Aunty M, Axxx business, Rxxx Arts,
- Community Art Exhibition
- Not just a product but a process
- Artists we know?
- Input important—so students can remember / learn / ownership
- Which staff? Which classes?
- Fundraiser?

(Journal entry)

After our discussion, the teacher met with her students to discuss the project. She said they were excited about the idea but wanted to promote the exhibition as a fund raiser for a local charity.

My next journal notes were headed “Shopping”. I remember the project teacher coming up to me in the shopping centre to tell me that she had been to the tourist
centre and was talking to their management staff about the project. She noticed that they did not have any brochures of their business available to the public. They said they would be interested in the students producing one for them.

I recorded “Very excited!” to describe the teacher during our conversation. Although production of a brochure was never part of the project, it was clear to me that she had developed a good sense of spotting potential KPS projects for her classes.

Back at school, the teacher had a planning session in which she wrote a unit overview that included a set genre for the term. The set genre had been predetermined through the district year program and was to be taught to all same-year-level students in the local area during this particular term. The purpose of the set genre was to provide consistency in teaching and assessment in a location that experiences high levels of both teacher and student mobility. Teachers moderated the student work from the set genre twice a year at a moderation day, which all teachers attended. This process was developed among local schools as a way to provide opportunities for teachers to gain greater understanding of standards and bring consistency to school program.

I recall that the project teacher was concerned about whether certain assessable items from the syllabus were meaningful or were required to be included in the term’s work. The teacher was troubled by the tension between following the leads of the project with student and community, and following the set unit of the district schools. During the course of the project, the issue came up several times. This is not a new phenomenon in schools that conduct KPS work. Deviations from set curricula can be difficult for some teachers to manage.

In the early days of the project, the teacher invited a local artist to visit the class to talk about what is involved in putting on an art exhibition. She shared her experiences about an upcoming art and craft show that she had organised.

The teacher created a PowerPoint presentation as a way to share information about the project with other staff and visitors. The teacher used the presentation to introduce the concept of the KPS art project and to prompt interest and invite involvement among colleagues. The teacher was keen for other classes to contribute to the exhibition but left the option of involvement voluntary. During the PowerPoint presentation to other staff, the teacher described the aim of the project and invited
teachers to become involved. She showed sample ideas of artwork suitable for different age levels for teachers to consider.

This information session was followed up by class visits and information sharing by the students from the project class. The project students visited other classes from across the school and, in small groups, talked about what they wanted to achieve in the project and what involvement other classes could have.

A few days later, the project teacher told me that other teachers were impressed with how the children from her class had talked about the art project to them and their students. The project teacher then nominated some students to be specific class liaison personnel. The liaison students were responsible for sharing information with other students, helping with class artwork, ensuring resources were available to teachers and students, and monitoring the progress of work to ensure time lines were met.

The following transcript is from a class discussion about engaging the community with the art exhibition:

Teacher (T): (Tell me) What the community can gain from it (the art exhibition)? Did anybody come up with a purpose for our exhibition?

Student (S1): Raising some money for the community, a charity, like the RSPCA.

T: Yes what did you think?

S2: That’s it entertaining, interesting for all ages

T: Like for all ages?

S2: Yeah

T: Ok so there needs to be something for Nana, if Nana comes along she will like it, or for a little 3 year old.

S3: Or the hospital, we could give some money for sick children, games or something.

T: Wow! So some of you guys are really interested in putting some money in for the community. ...

S1: Actually I just got an idea. I reckon for the community cos it will help the community realise that art is more than just a painting, it’s what people express.
T: Yeah, and you people said it doesn’t always make you happy it can show sadness. Ok that’s a good one.

(Teacher transcript)

Just prior to this discussion, I overheard one of the students talking in her group about the role of children, but I missed it on tape. After the lesson, I asked the student what she was telling her group about the role of students. This is what she told me:

S1: Kids can, the community will realise that kids don’t just play around being silly, they can do things and if they put their mind to it. Like grown-ups can do it but kids can do it too. ... The purpose would be that kids will have feelings and they’ll put it all into a painting, it’s not just a normal painting it’s what they’re feeling, an emotion.

(Student transcript)

During the project, the class worked as a whole during some planning and updates, and at other times, the students worked on specific tasks. They undertook various roles and responsibilities, including participating on the fund raising committee, acting as liaison person, negotiating with outside groups and organisations and so on. Each group of students would report back to the whole class during the project, inviting discussion and elaboration of their work.

One group of students looked at examples of art exhibitions put on by other children from other schools. They gleaned ideas from websites. Their task was to create an “art plaque” for each piece exhibited. The same group of students, in consultation with the class, also created the exhibition’s advertising poster. The exhibition was originally titled “Art Attack” but was later renamed “Valley Visuals”.

I am conscious of recounting “marker moments” of the project. I have left out some of the negotiations because I did not have access to them.
One student talked about the work to his mother, who worked in public relations and was experienced in organising large-scale community events. This student and another classmate asked the “events coordinator-mum” to come and help. The students rang the events coordinator, asked her about her availability and told the teacher what time they had arranged for her to visit the class. The students asked her to talk to the class about her ideas and experiences with organising events.

A public relations manager and events coordinator shares ideas with the project class about how to organise a successful public event.
There was some discussion in the class about assessment. The students were conscious of the fact that, in the different groups, students were doing different things, learning different things and demonstrating different skills.

*T: We talked about assessment. One of the kids said I should get an A, because I’m going to do a good job faxing and getting my posters out to community... I explained that these aren’t going to be on the report card. I won’t be there observing all these things. ... So I think that had a lot of the kids saying why are we doing it? I think one of the kids said but we’re doing it for ourselves too. They want to do a good product, they want to achieve something. They’re at that point. ... We are working a lot as a team, on our purpose, so that’s the reason for today. I’m hoping that they gain, there are learning experiences that aren’t formal, that we’re learning all the time, that we are lifelong learners.

(Teacher transcript)

As the project started to take shape, the students were making more contacts in the community. The project teacher, however, had other concerns. She returned to her unit to redraft it. The curriculum coordinator worked with her to help find a balance between the project and the set unit for the term. The result was that the topic and ways of working were able to be included, but they did not match the set unit. The teacher did feel compelled to leave in the set genre so that she could take sample
work to the district moderation session. This was an uneasy fit and continued to be the cause of tension for the teacher during the project.

The events coordinator visited the class again. There was discussion about the venue, date and the organisational considerations of holding an exhibition.

T: *In your experience how many weeks in advance would you contact or book?*

P: *Yeah definitely if we’re organising stuff, we usually organise things months, but in this case you don’t have months so you have only 5 weeks so that would be a phone call that you would need to make very soon.*

T: *So we need 2 people who would be that point of contact, would L like to be that person and what about P?*

S5: *Yep*

T: *And P? Would you like to do that as well?*

S6: *Yes*

... *(The discussion then went on to talking about what is available at the venue)*

P: *We’ve done lots of events there. There is a bar so you can have that open, they don’t do catering but you can bring your own in. ... So you need to ring them, ring J and if she’s not here ask for S. ... Now because it is a public venue, they normally charge for the hire. But you could write a letter to the council and ask for “in-kind” support to waive the fee. If they waive the fee that’s good but if they don’t that cost will come off anything you earn in the auction, so you have to weigh it up.*

T: *Ok so we’d need to look at a formal letter.*

P: *So the next thing is the “who”? If you want the community members to attend, tourists, parents, schools... special guests, you need to send an invitation to let them know what is happening. But before you send the invitation you need to decide your date and your venue. You need to look at venues, decide on availability. That will determine your date, and go from there. The best thing to do when you’re organising big events is to split into smaller teams.... So that everyone is responsible for each area. So a group or the whole class would be responsible for issuing invitations. If you have any special guests, would you want anyone be required to make a speech? Who would that be? Are they available on the date? K?*

S: *Could we go around to houses and put invitations in letterboxes to invite them?*
P: That’s a lot of work. There are probably easier ways. What else could you do?

S: Big cardboard signs

P: yeah posters

S: Newsletters, notice boards….

P: if you have special guests you could write special invitations. What about tourists? You could do a flyer up ready to put at places like Tourist Centre. What about other school newsletters?

S: Oh yeah!

T: … I know Ms L (local artist) said they’re having a exhibition at xxxx and there’s an arts and crafts thing that’s coming up at the end of the month and they offered us a table if we wanted it so if we prepared our flyers, … so we could promote it there…. So it’s just a matter of us getting our advertising and promotion stuff ready… and if the table’s who’s available to man it on a Saturday to be there to hand out information.

P: and lots of the shops have notice boards, or the xxxx (large employer in the town). You could ask your mums and dads to put the information out.

S: Could you do it on the supermarket noticeboard? …

P: There’s lots of ways to get the info… but first you need to get the date and venue pinned down. Ok so how are you going to sell the work?

S: Auction, putting a price on it?

P: Auction or fixed price.

S: To book it we have to pay so how would we pay for it cos we don’t get our money till we sell our art on the night?

P: Usually you can pay after you hire, so you could pay after but food you would have to pay for upfront. What normally happens in an auction is that you would normally have some information out.

S: like a brochure

P: Yeah you could do a brochure with photographs, it would all be numbered, people need to register, I think you have to be over 18…

S: like parents

P: yeah, it’s a lot of work in an auction.

S: We could write a letter to a real estate
P: yeah you could because they do it all the time and they might be willing to help.

S: We could have it for two days, so they could look on the first day and then buy on the second day.

P: Yeah, you could do that, ... or have the brochure so long as they can see the work prior to the purchase on the night. How would you know what price?

S: We could ask Mrs L (local artist).

P: Yeah that’s a good idea—she is your art consultant so she would be best to ask on that.

P: yes that is a good idea. What do you think is the best way? Remember what I said auction is a lot of work. There may be regulations about auctions, so maybe you can ask and then come back to the class and decide. .... I know you have other classes doing art for the exhibition.

T: Was there someone who said they knew a real estate agent?

S: put hand up.

T: ok it’s you P.

P: ok so maybe you can talk to that person and they could come in or give you some idea.

... (Other discussion about the exhibition included furniture, details of auctions, what other KPS schools had done in selling things, what art pieces would be included)

S: We have different people who are looking after the different classes.

S: We have a designated class.

... (Discussion of the types of artwork, information to include on the flyer)

P: Ok so we’ve probably done all we can cover now. Maybe you need to go away and do some of these things and then I can come back once you got all that we can go further.

T: Ok so let’s make a time line.

S: Where

T: what else

S: Date

T: Let’s say by next Friday we lock in our venue, our date, what charity we will support. So do you think they are the main things?
P: Yep

T: So with the invites we’re not sure they should look like, Mrs M have you got any examples? That you could bring to show us?

P: yep sure I will bring some. ...

T: Do you have a working board or anything like that up when you are working?

P: Yep you probably need a couple of whiteboards and then write up all the jobs and then write the task, then break them into smaller tasks and assign the people to the tasks and a time. ... Then tick them off as you do them. That’s easy way to track. ...  

S: Miss could we use one of those boards in there?

T: Yeah ...

T: What do you call that a working board?

P: yeah we call it a work in progress board. A WIP board.

T / Ss: Laughed. Wow A WIP board.

S: It’s like a whip, whip, whip. (Gesturing cracking a whip)

P: yep it makes you accountable (laughs)

S: Yeah and if you don’t get it done you don’t get paid.

P: Yeah that’s right.

(Discussion transcript)

It is not uncommon to bring visitors to a school for guest appearances—some show and tell or performance. The work in a KPS project like this engages outside experts in ways that go beyond the usual domesticated routine of a visiting expert. As is evident from the transcripts, the expert is working with students and teacher in helping to formulate the problem and plan approaches to tackling it. The hinterland from which the events coordinator comes appears, on the surface, to have some family resemblance to that of the classroom, but unlike the classroom, the consequences of the practices in which an events coordinator is involved entails a great deal more risk—a property that is typically minimised in schools.

During another visit, the events coordinator worked with the fund raising committee. They talked about businesses that may sponsor or support the event. The main
concern in this discussion was ensuring that the venue would be able to house all of the art pieces that were produced in the school.

Students show their draft letters to the events coordinator.

P: Normally big business has a budget for sponsoring community groups. So maybe we can write a few more names of businesses. … (brainstorming and clarifying a list of businesses) Another thing is that they may not be able to donate money but they may have some goods they can give you, so we can add this sentence in here (referring to their draft letter) “in-kind support” …

P: When are you hoping to send these letters out?

S: Next week.

S: No we should try to get it out today.

P: I think that’s a really good idea because they don’t automatically look at these letters every day, especially if they have to issue a cheque. …

P: I think you’re doing really well. You need to get your letters finished

P: Ok so you need to change the flyers, there’s letters going home to parents for donations and then out to businesses. I think your spider day is a really good idea … do you know how much money you need to raise?

S: Yeah, $180. …(Further talk about advertising for the fund raising day)
P: What you need to do is change this letter around, probably get it out as soon as possible; finish off your list of people there? Do you think you get it out to more than 10 people?

S: Yeah ...

P: Ok so notice in newsletter, flyers, finish off letters. (re the spider day) Do you know how much soft drink you need?

S: Yeah we worked that out.

P: Did you do this in maths?

S: No we did it at one of our lunchtimes.

(Discussion transcript)

Later that week, I asked the teacher about the “spider stall” that the students working on fund raising had planned. She commented on the maths in the activity:

T: They (the students) have a more invested interest. They are staying in at lunch, finishing off things. Like the “spider stall”, which was maths but the kids wanted to stay and finish it. They were really motivated.

(Teacher transcript)

The teacher told me that she wished she could have used the KPS genre for their assessment because the quality had been so good. She showed me the difference between the writing for the class set genre and the letters done for the project. The letters were the ones actually sent out to various business and community groups. The events coordinator said the quality of their letters was “really professional”. She gave students feedback on their first drafts and was impressed with what they changed and how much they had improved. She said they really took the job seriously.

The events coordinator and students’ promotion committee sat around the computer to view drafts of the students’ work. Here is one of the discussions that took place while they were reviewing the drafts and other plans:

Teacher (T): Do you want to show the paper copy while you’re waiting (for the computer to start up)? ...

S1: (Talking to the events coordinator) Miss we’re going to have to show you over here (on the computer). This is our brochure; the blue bits will be where the photos will go.
Parent (P): So this is the brochure you’ll give out at the exhibition.

S1: Yep, (reads out what they have written about the designated charity)

P: That’s good, excellent. ... Ok so Year 1 weaving. So you’re just going to have pictures...

S1: And the pictures of the artwork... and like a paragraph about it.

P: Ok so these brochures you’re just going to be handing these out to people on the night? Are you going to have anywhere else for people?

S2: Yeah they’re going to get put into these brochures as well. And this is the invitation.

P: Ok so are these the invitations? (looking at the next screen and reads text) ...

S2: I can’t really read that.

S3: Yeah, I reckon this should be bigger.

S1: Yeah it can’t be bigger.

P: How big are these going to be printed out? Are these going to be posted out?

S: Yeah

P: (Reads invitation details aloud.)

S: Can you (to student at keyboard) go for 100% first?

P: So is there a time for your official launch?

Ss: yeah 10:30–12.

P: Ok so what I would probably do is move this time up under the date?

S: How do we do that?

P: Because the things that people what to know are what, when, where... So they’re your most important things.

S: How do we do that?

P: Can you cut and paste? You should be able to cut and paste...

S: Here (another student leans over and takes mouse from S1 and makes the changes)

P: Go yes and see where it comes out
I noted in my journal that all four were touching the keys as they discussed the edits and changes.

A representative from the local charity that would receive the proceeds of the exhibition came to visit the students. The students presented an update of the project to him. They used a PowerPoint presentation to explain what the project was about. After the session, the charity representative told the teacher, “I know exactly what’s happening”. He said the students were very organised and presented well. He told the teacher the students had asked “good, genuine questions” of him.

The teacher said the representative from the charity was very patient with the students and the visit was very informative. She said to me:

_The students made up some really good questions on the spot, they were genuine questions because I didn’t give them anything. I didn’t know myself anything about this charity, so I was learning and I was interested ..._

Later, when I caught up with the teacher to check on progress, she told me:

_It’s been going. I imagine it as a locomotive that I can’t stop, I’m just trying to stay on a track. That’s how I like it. Like Harry, Harry did the (fundraising) posters, I can never get him to sit for more than half an hour..._

(Lesson transcript)

Later that week, I visited the class. The teacher spoke to me about what was happening:
Teacher (T): I wish their genre was letter writing because all my kids have done so much on letters this term. That’s been a struggle.

Researcher (R): What was it (referring to the set genre)?

T: Art review.…

R: You can use the letter for English (assessment) though?

T: Yeah, can I?

R: Oh definitely.

T: That’s the thing I can grade them on the letter, they understand the idea of it.

R: M (referring to the events coordinator) was saying what a professional job they’ve done too.

T: Oh that’s terrific.

(Teacher transcript)

During the project, I met with the teacher in my role as principal to discuss her class data in the areas of literacy and numeracy. These talks are held each term as a school-wide system for analysis of student data, identifying strengths and weaknesses and developing a plan for teacher professional support and specific student intervention or program modification. The following transcript is part of that talk.

In discussion about reading:

Principal (P): Across the board it looks like everybody has made progress.

Teacher (T): Yeah but there’s still a group (names them) Like Peter he’s reading at home more now. …

P: What happened with Peter?

T: All of a sudden probably about 2 months ago Peter has started reading novels. Mum was so surprised … he has the interest now but needs more work with his oral reading and comprehension. … Mum doesn’t force him so she’s been asking me.

In discussion about writing:

T: In this particular term 3 (genre) there wasn’t enough research or details on the topic.

P: So the field knowledge?
T: Yeah ....

P: How did your focus with your middle to upper students go with our NAPLAN goal?

T: My focus was a group of students just below benchmark. They didn’t edit their work well enough. My teacher aide worked with these students.

In discussion about spelling:

T: This has been a big focus in our room... You know how much I’ve been doing. Big improvers were Peter, Sam, David and ...

In discussion about maths:

T: These are the kids who have made significant progress jump: Peter, Carly, Sam.

... They were very proud of themselves

R: There were a couple of kids who are standing out as applying themselves, Peter, David...

T: Yeah Peter loves maths, he got one of the highest in the NAPLAN maths test...For him I just push the fact that you’re not up there with the rest of class yet because you don’t check your work.... The other kids in Year 6 do better than him just because they check their work but he is one of my highest.

(Teacher transcript)

The interesting observation was that the student enthusiasm for the project appeared to be having an influence on their engagement with routine classroom work. Individual students who previously had found classroom work difficult and were struggling almost across the board suddenly found themselves in positions of influence and respect. A case in point was a student I will call John.

I asked him about the collage of Mount Fuji the class was preparing. John told me that he was the director of the piece. He explained that his job was to help others with their artwork. He pointed out that the piece was a mosaic. He said they had first worked on small mosaics to understand the style of art and how it could be used. John showed me how he had traced the basic outline of Mount Fuji as a basis for the piece. He proudly told me that his role in the project was artistic director.
I asked the teacher if any students in particular had surprised her during the KPS project. The extract below captures some of her thoughts:

*T: I think the children have a respect for John, John is always needing learning support in the classroom.*

*R: Are you saying a new-found respect?*

*T: There’s an acknowledgement of the fact that John knows some things and has the skills that the others don’t… it’s great for him.*

*R: What do you think those skills are?*

*T: Just on an artistic level, he’s got a great sense of composition and colour knowledge. And just the process of doing all those fine cuts and gluing them down, and that with me just saying one thing and then John goes and does it all and directs all the others. Communicatively, it’s helped him because he’s had to be clear on what he’s saying and he has this real product he needs to get to, and he’s got to get it done. And that’s really improved since term 1 or 2 if you asked him to repeat himself he would just go “ah” and get someone else to say it for him. So he’s been more expressive. It’s little things, with this KPS. It’s such a shame that there’s so many little things (changing) that you’re not noticing everything.*
T: The students chose their own committees.

R: What are you trying to say?

T: Normally I would select the groups but for this I let them choose their own groups. ...I think I’m surprised by the groups because I wouldn’t have grouped them like that, like I would balance boy, girl and ability but for this I didn’t.

(Teacher transcript)

A teacher aide with an interest in art was invited to speak to the class. She suggested a different, possible venue for the art exhibition. She explained that the open space of the alternative site would be good for the kind of exhibition being planned. The aide was full of praise for the students after she spoke with them. She told me how impressed she was with their attentiveness and the quality of the questions they asked.

This teacher aide also asked the project teacher if she could include some photography from another student she was working with in Year 4. This student was currently on an alternative program, was a poor attender, had low achievement in all areas and displayed regular inappropriate behaviours. The teacher aide introduced the photography work to Glen as part of his alternative program. For the most part, Glen was a complex and challenging student, parental involvement was very limited, and school and national test results indicated very low literacy and numeracy results. He had attended various schools in town and did not have a “good reputation”.

As part of his alternative education program, the teacher aide introduced Glen to photography and provided him with some opportunities to create nature images from around the school. The teacher aide showed the project teacher, his class teacher and other staff some of Glen’s grass and nature photographs. The project teacher showed the photos to students in the Year 4–7 classes. There was a great deal of interest in Glen’s photos among the students. Many were impressed with the quality of the photos. The students who were the class liaison students for the project selected Glen’s photos to be displayed as part of the exhibition. The teacher aide said Glen had a real talent in photography. While in the playground, students initiated conversation with me about Glen’s photographs of the grass. One student said, ‘Yeah Glen was really good with the grass (photo).’ (See nature and outback display photograph in the following section.) This work provided Glen with an opportunity to develop skills in photography, and through this work, his attitude and engagement
with other students and his class teacher became more positive. Glen’s time on task in class increased and the number of inappropriate behaviour referrals decreased during and after the project. Glen’s staff support network also increased as he became more comfortable with some key personnel, such as the project teacher, the teacher aide and his class teacher. These relationships were a significant step for Glen, as his background was both sensitive and complex, involving numerous changes in both home and school situations.

The flow of different people and materials into the class, the new practices the students developed, particularly in relation to liaison with other classes, and the growing number of community groups and businesses produced, temporarily, a hinterland with different “reality possibilities and impossibilities” (Law, 2004, p. 160). Instead of writing for pretend or practice purposes, the students wrote to ask, to communicate, and to thank people and organisations that were contributing to the project.

The teacher involved in the project reported that students readily saw a purpose for letter writing and this resulted in a commitment to quality and professionalism of a kind she had not seen in this class previously. For example, the students wanted to write a letter to someone who had helped them out. The girls wanted to write to Ms G, who had helped them on the photography work. The teacher observed, “They’re a lot more keen. They’ve got an invested interest. And it’s like, ‘I’m just going to write a letter. I’ve got things I want to write about.’ So for me that’s been helpful because sometimes it’s difficult for them to have ideas or know what they’re going to write about.”

The teacher noticed a significant change in one particular student’s attitude to writing. She said that Peter had become more positive; he was doing project and other class work without teacher prompting. He was now writing at length, compared with previously when the teacher had to keep prompting Peter for “each paragraph” at writing time. I asked Peter about whether his interest in writing had changed during this project, and he said, “Yeah I’ve got something I can write about”.

On other visits to the class, the teacher told me that Peter had started to initiate work for the project without teacher prompts or suggestions. He started getting on the computer each day to review project work. He started going to the other classes to see how they were progressing with their artwork and began helping with his own
class mosaic, which was not specifically his job. When I visited the class to take a photo of the class mosaic, Peter was the one who wanted his photo taken with the mosaic. I noticed that Peter was smiling when he was talking to me about the class project, which was something I had not seen during my regular visits to his class.

On their own initiative, two students, John and Peter, began to visit me in my office to keep me up to date on the project. On one of these visits, I asked them to tell me about what they had learned from the project. The following is an extract of our conversation:

*John (J):* Now I help others and I’m confident.

*Researcher (R):* What has helped you feel more confident?

*Peter (P):* Most of us haven’t done this sort of work before.

*R:* How is it different to other work?

*J:* Communicating with the public.

*P:* Not so boring, hopping on the computer every day, helping with the mosaic.

*R:* What else?

*P:* You get to help other classes too, it’s not just working in your own class.

*J:* Raising money for the charity was good.

*R:* I see you are very interested.

*P:* It’s a lot easier and fun to work with other people.

*R:* Tell me about the different people you’ve worked with.

*P:* We worked with other classes, parents, the charity person, the venue person, artists, and Ms T (teacher).

*R:* Has the work of other people in your class surprised you?

*J:* They were helping out more, working on their own. The whole class were giving us ideas.

*R:* You were in charge?

*J:* I used to do nothing and now I do work in the class and help other people. I never did that before and now I do.

*R:* You feel more confident?
J: Yes I do

R: Have you been sharing this with you parents?

J: No

P: I have.

J: I changed.

R: Do you think you've (addressing Peter) changed?

P: No

J: You're (looking at Peter) not so angry.

R: When I see you down there in class now you seem happy and ... doing work

P: (laughed)

J: Yeah and out of the school grounds (referring to P's more relaxed attitude)

P: Mum's been asking me (what's going on).

(Student transcript)

Not long after my conversation with the two boys, a local artist rang to invite the students and teacher to a local art show. She thought it would help them with their exhibition. A large number of students and parents visited this artist’s show on the following weekend. They came back with many insights and ideas about how to present art works. Back in class, they had lively discussions about what they saw that worked well. The ideas they brought back ranged from catering, to the use of space and the relationship between different pieces of art.

The local artist visited the class and suggested to them that their show “ought to be about children”. Like the many members of the community who came to visit this class, she was impressed by the students’ interest and professionalism. She said to me, “It’s very apparent that this is their project”.

146
In one of the last visits by students to my office, they gave me an update on their final organisation prior to the exhibition:

S1: We are wondering if you were able to come to our exhibition and say something at the start and then me and Mary will take it from there.

R: Yes definitely. How’s it all going? Is all the artwork finished?

S1: Not yet but it’s coming in.

S2: Coping, we’ve got to run through sheet and everything. At the moment we’re trying to figure out the catering.

R: I saw the photography by the Year 4 / 5 and it looks great.

S1: Yeah Glen was really good with the grass (photo images of grass).

Just before the exhibition, I heard from the class teacher that John would not be attending the event. I rang his father to explain John’s role in the art project and asked if there was anything I could do to support him attending. John’s father did not go into detail but restated that John was not permitted to attend. I accepted the decision and wondered whether the decision would have an impact on John’s work.
in the final days before the exhibition. I noted that John accepted his father’s decision and the teacher also told me that, despite not attending, John was still going in at lunchtimes finishing off artwork and directing others with the final hanging of pictures.

Pictures from an exhibition

![Image of Year 1 “Wonderful Weaving”

Year 1 “Wonderful Weaving”

![Image of Year 2 Ink wash “Charcoal Faces”

Year 2 Ink wash “Charcoal Faces”

148
Year 4 Variety of crayon and watercolour paintings.

Year 4 “Yellow Beauties”
Visitors look at the Year 5 nature and outback photography display.

The exhibition turned out to be a great success according to students, parents and the local community who attended. For me, it was less the final event and more the little wins and victories along the way for students like John, Peter and Glen that defines its success. The student success in this work spilled over into other schoolwork and continued to do so during the time of writing this thesis.

My sampling of the progress of the project did not allow the detail I would have liked but I was able to record a useful set of interviews, which, from my conversations with the teacher and students, allowed me to trace some of the interplay of the new as well as the well-established practices that, taken together, might be said to have enacted the project. Somewhat reassuringly, Law (2007a) notes that realities are multiple and messy and will always surpass our capacity to represent them. That said, through most of the project, I had a nagging sense that I had missed this or that of real importance. I take up Law and Latour’s advice about a modest approach to doing work such as I have undertaken: small, careful steps to trace associations, to make space in this document for the actors, language bearing and not, that were enacted in the practices I have tried to represent. Importantly, I am reminded that the writing I am doing, my representations of the realities of this research, make me no different from the things I have been studying. My writing practices and your reading practices, as Law also keeps reminding me, assemble a putative reality of KPS work. As Law (2007a) puts it, our accounts, our descriptions,
will always be incomplete and provisional, and we do a lot more than simply represent when we carry out research:

It is never the case that they simply describe. They too enact realities and versions of the better and the worse, the right and the wrong, the appealing and the unappealing. There is no innocence. The good is being done as well as the epistemological and the ontological. (p. 15)

I now want to consider further the practices I have been attempting to describe.

**It’s practices all the way down**

In this thesis, I have drawn on an actor-network sensibility to think about what went on in KPS projects. The notion of a KPS project is only realised in the myriad practices that come together, or do not, to produce the different realities that we call classrooms, projects and so on. The classroom multiple, to borrow a line from Mol (2002), is enacted through the coming together of a set of socio-material practices that are not limited to those in which a teacher and her students are involved but also include the many other practices that enact the realities of the school from within and beyond.

I draw on Law’s argument (2007b, pp. 32–35) about the significance of a routinised hinterland that is a key part of the making and unmaking of definite realities. His argument draws on observations made by Latour and Woolgar (1986) in their study of Roger Guillemin’s laboratory at the Salk Institute. Asking questions of schools and schooling similar to those of Latour and Woolgar about the relative stability of scientific realities offers a different and, I argue, useful way to think about the stability of the realities of schools, schooling and the practices that enact them. What Latour and Woolgar suggest is that thinking in terms of *cost* offers a way to think about the fate of practices and ideas that might undermine the *status quo*. As they put it, writing about the stability of scientific reality,

the set of statements considered too costly to modify constitute what is referred to as reality. Scientific activity is not “about nature,” it is a fierce fight to construct reality. The laboratory is the workplace and the set of productive forces, which makes construction possible. Every time a statement stabilises, it is reintroduced into the laboratory (in the guise of a machine, inscription device, skill, routine, prejudice, deduction, programme, and so on), and it is used to increase the difference between statements. The cost of challenging the reified statement is impossibly high. Reality is secreted. (p. 243)
It is worth pursuing this line of argument in relation to schools in order to open up the KPS phenomenon in terms other than that it being enacted as just another innovation in schooling. Doing a crude mapping of the argument of Latour and Woolgar, if statements about KPS can be stabilised—and I have spent a good deal of the past few years working to achieve that end, even if not thinking about it in quite these terms—they get reintroduced into the school as a logic or routine that has, at least for some teachers, particular attractions. The “Induction Presentation”\textsuperscript{33} can be seen as one such reintroduction. My interest in and encouragement of projects of all kinds that were informed by the notions of KPS remind me how difficult it is to establish new ideas in the routinised hinterland also known as school.

There are, of course, other costs associated with doing KPS. The teacher who worked on the art project was deeply concerned about how to articulate all of the excellent work she witnessed into existing curriculum assessment frameworks. Some students expressed surprise at the seeming disconnect between what they were doing and their grades. KPS work is not routine. Much of it does not mesh easily with the day-to-day practices we call schooling. If it does overlap then it has been made to do so by teachers, parents, students and outside experts. While I have focused on the two cases described in this chapter, there have been a good number of other KPS projects in the school, many of which have influenced the practices of students, teachers and some members of the community who were involved. The challenge, as is so often the case with any shift in curriculum, is how to interfere and strengthen what, to me, are desirable realities of doing school.

If the experimental, risky or innovative qualifiers associated with a curriculum change like KPS can, over time, have those qualifications removed—what Law (2007b) calls being demodalised—then “yesterday’s modalities become tomorrow’s hinterland” (p 32). Further, as Law continues, “The hinterland produces specific more or less routinised realities and statements about those realities” (p. 33).

While there has been a large amount of work done under the KPS banner at the school, the regular flow of early career teachers in and out of the school\textsuperscript{34} means that the work of demodalising is ongoing.

\textsuperscript{33} One of the pieces of published work in this folio.
\textsuperscript{34} Not unusual for remote Queensland schools.
Getting to the point of removing the modalities of statements about KPS, as this case and the previous one traced in this chapter have illustrated, is no simple matter. It is, however, important to examine how the new practices associated with doing KPS move from an idea, to various practices and, finally, at least in the cases that work, to realities. Some of this is captured in the accounts above, and now I want to work through the two foci of this thesis: the role of local community and what happens to disengaged students when they take on KPS work. As I do this, I want to take advice from Law (2008) concerning the enactment of realities:

There are different realities being enacted in more or less power-saturated practices. The question becomes: how to interfere in and diffract realities in particular locations to generate more respectful and less dominatory alternatives. How to trope, to bend versions of the real, to strengthen desirable realities that would otherwise be weak. (p. 637)

When I first read that passage, I wondered what on earth he was writing about, but as I look back over the many KPS projects and the two cases represented in this chapter, I have come to think of KPS ideas as a kind of playbook that offers ways to interfere with the highly routinised hinterland of the classroom. Interference works in a number of ways, it seems. Clearly, taking on knowledge work that is at the edges or outside the planned agenda of a classroom teacher counts as an interference. But, it is worth attending to the other interferences or disruptions that, as we have seen in these two cases, relatively modest changes in the materiality and practices of a classroom can allow.

Students who have been routinely enacted as disengaged, uninterested or perhaps incapable of doing routine school work are, in KPS work, enacted as capable, skilled, knowing and thoughtful contributors to projects. Happily, these enactments appear to have carried beyond each KPS project. Those who perhaps are more invested in the routinised hinterland of the classroom—teachers and to some degree principals—are enacted in ways that can be quite unsettling, often expressed as a loss of control, a marker commonly associated with poor classroom management. It is a fine, almost fragile balance. It clearly costs to maintain KPS work in the routinised hinterland of the classroom. It would seem, however, that there are always teachers curious enough or committed enough to explore these possibilities.

A common feature of KPS projects is the involvement of outsiders, generally people from the community with a particular expertise, be it Indigenous storytelling or
organising a public event. Despite the willingness of some to self-domesticate the classroom, people from other more or less routinised hinterlands bring with them different materialities, different ways of working and different ways of thinking about problems. Although willing to contribute—to bring much needed expertise—they cannot easily step out of the familiar hinterland in which their practices have been nurtured and quickly take on the practices of the classroom hinterland. Modest interferences emerge that prove difficult to mesh with the hinterland of the classroom yet are deemed critical to the progress of a KPS project.

Following this performative line disrupts the enactment of KPS work as just another curriculum experiment—something that combines many things that are familiar but in an uncommon manner, as has been suggested (Lankshear & Knobel, 2006b). I think it is important to resist the enactment of KPS as a curriculum change or reform because such a move privileges an already highly privileged and routinised way to do school. Moreover, enacting KPS as something that is at the edges, an add-on, similarly enacts the involvement of the community and the impact on disengaged students, that is, as unusual, uncommon, that might happen in out-of-the-ordinary circumstances. In other words, all of this work amounts to little more than a revalorisation of the status quo. The performative line I have inexpertly tried to develop works directly against enactments such as that. It allows KPS work to be enacted in and on its own terms.

There is a tidiness to domesticating KPS work, to locating it somehow within the routinised hinterland of the classroom. Again, I take my cue from Law (2008) who posits that:

If the materially post-structuralist and performative vision of the world offered by contemporary STS [Science and Technology Studies] and some of its cognate disciplines makes sense, then reality is complex: it is a reality multiple. . . . It seems to me that methods that imagine the world to be relatively neat and tidy and try enact it in that way, are missing the point. Worse, they are seeking to stipulate and so to enact an order that is epistemologically mistaken, ontologically unrealistic, and politically obnoxious. I sense this every time I have to fill in a questionnaire. Usually, almost always, it seems that the questions do not quite fit. And I feel it, too, when I have to respond to social science inquiries about the rigour of my approach to research, to research methods, and to research hypotheses. Usually, for instance, I cannot tell beforehand how the data will be analysed. Often, indeed, I have no idea what will and what will not count as data. The
forms of ordering implied in such inquiries do not match the social realities with which I wrestle. (pp. 640–641)

So many of the practices that enact schooling are concerned with order, tidiness and fitting the unruly bodies and materials that are found in all schools into their allocated positions, be it in a seat in a classroom, a time slot on a class schedule or an order of merit in terms of performance on tests. It is not unreasonable to suggest that the students who are judged to be disengaged fall into the catch-all category of not quite fitting. As a KPS project is developed, it is apparent that students get a sense more quickly than their teachers that this new space/place does not have the same locating mechanisms, the same protocols that have successfully pigeonholed them since the early days of their time at school. Any attempt to tidy such a space in the way that spaces are tidied in a classroom would cause the KPS work to fail. When you bring in people and materials from different hinterlands, you generate unpredictable (“I feel I have lost control”) and unruly practices. What is most interesting to me is that it appears that students, compared with the older people charged with their care, seem far more adept at navigating their way in the new circumstances generated by KPS work.

This also appears to work to support and favour community involvement. Everyone in the community has had a long experience of doing school. I suspect that their views and anticipation of working in KPS projects were initially framed by their histories and recollections of school. When they realise that they are not part of the routinised hinterland—however they recall or imagine it—and they have opportunities or are encouraged to bring the practices from their hinterland, interesting new practices emerge, as we saw in the case of the art project and the Indigenous storytelling project. In the case of the Indigenous storytelling project, the expert community members had a firm commitment to when, where, how and who could take part in the day at Sybella Creek.

What I have just written are not explanations; they are my attempts at enacting differently both the patterns of re-engagement I found with disengaged students and a different involvement by people from the community who lent their support to various KPS projects. It would have been simpler to domesticate the KPS stories—to locate the outcomes within the extant research literature that I have mapped in earlier chapters. However, that, to me, would have contributed to a hinterland that is in no need of further strengthening.
Chapter 5: Learning to make professional use of mess: a modest interference

As I noted in the previous chapter, my writing practices and your reading practices of this folio assemble a *putative* reality of my research and the KPS work that was its focus. In the folio, I have traced the development of my thinking from the early days of having my curiosity piqued through to carrying out a formal research study and the subsequent development of an ANT sensibility. Coming to terms with ANT ideas opened to me the intellectually challenging and counterintuitive notions of performativity. Through this, my interest in student engagement and the learning partnerships that can be formed between students, teachers and experts in the local community has, if anything, been heightened. When I began this work, I had assumed that my findings would be of the kind commonly reported in case study work and would constitute a useful contribution to professional knowledge. That concern has not altered. What can I now usefully say that will be of value to other teachers and principals?

I can make no claims about the reproducibility of KPS work or its ease of implementation. I do know, however, that in all of the KPS work I have witnessed and in the stories of teachers and principals from other schools, there is something interesting and important about the *messiness*, the apparent *unruliness* of these projects. At times, they do not easily fit into the routines of the classroom. Indeed, most of them are characterised by work outside the classroom. In itself, that is not unusual. But when you combine the shift in materiality—the new spaces and places—with a focus or task that also does not fit easily into the hinterland of the school, then it seems that interesting practices emerge. You could say that this interplay of changed spaces and an undomesticated or feral task generates a set of practices that might be called an interference, a *good* interference in the routines of doing school. To me, and the other participants in KPS projects, the practices I have described did what I judged to be *good* things, for the students, for their teachers and for those of the community who were involved. Some of these goods are easily labelled: the engagement of students who were previously disengaged; the professional growth of teachers who, when faced with an interference to their well-rehearsed routines and despite expressing considerable discomfort at what they often
called a loss of control, were able to adapt and adjust and enact; and the practices of experts from the community that resisted domestication to various degrees.

This is, to me, the significant outcome of this work. Yes, it is the case that KPS resembles a lot of other project-based work that takes place in schools. However, it is the unique combination of two requirements—drawing upon community expertise, which often requires a relocation, a change in place and materiality of the classroom, and a task that is only partially able to be accommodated within the hinterland of school—that generates the conditions for new practices to emerge.

That is not the way I wrote about KPS work in the pieces for professional journals and the book chapter that are part of this folio. I wrote those in much the same way that KPS ideas had been written about previously by others. The difference, which is due to a shift in the way I have come to think about realities and their enactments, poses an interesting problem: how to contribute to professional knowledge knowing what I now know? It is a long way back to those early days of experimenting with KPS projects and learning how to negotiate with community groups that had a largely predictable understanding of how to relate to schools and their projects. It would be relatively simple to list the implications of what I have documented in the two case studies traced in the previous chapter. I will do that in what follows, but first, I want to attend to what to me now is the complex nature of contributing to professional knowledge.

When I think back to the earliest experiences of KPS work in the school, I realise I had an untutored eye and mind. What I saw tended to be framed in the commonplace reality (singular as it was then) of school. As I have noted, my interest was in an odd/interesting phenomenon: that when students who had been labelled as disengaged had experiences that were somewhat out of the ordinary, they began to re-engage. It also seemed that their experience of the out of the ordinary carried over into other school routines to which they had become disaffected; that is, they became engaged in routine classroom work.

I saw this again in the two cases traced in the previous chapter. I was looking for it but did not or could not set up some kind of experiment in which I could treat the disengaged and look to see what happened. I could watch, listen and make notes, but how student practices developed in the new conditions was beyond my and, indeed, most participants’ control. KPS work is too unruly to plan in the way that a teacher
might conduct an experiment of altering the curriculum experience for some students in her class. KPS work has a riskiness to it that derives from the two interferences: the changed materiality of the classroom\(^{35}\) and the additional source of expertise in the classroom.

I want to explore these ideas a little further. If I step back from each KPS project, it becomes clear that they are each a kind of experiment—an experiment in doing school a little differently. It almost always generates a sense of unease in the teacher(s) involved, which seems to be mirrored in an inverse manner by new-found enthusiasm in some students. But—and this is an important idea that arose for me in reading ANT-informed material—in this research, the projects are messy, which may in part contribute to the unease expressed by teachers. Mess and disorder tend to be intuitively linked to negativities in education. Tidy minds and tidy (and quiet) classrooms are, in the mindsets of many, hallmarks of good teaching, classrooms and learning. My experience, at least of KPS projects, suggests otherwise.

Disorder is sometimes associated with making mistakes. In conducting this research, I know that I was much better at noticing, keeping records, making notes, reading, thinking about my questions and writing at the end than I was at the beginning. There is only so much you can learn and imagine by reading. Doing, I have always found, brings a different dimension to ideas. You have to make mistakes, hopefully small ones, to progress. There is a similar pattern in each KPS project I have observed. Each takes the teacher and students into unchartered waters. There is an aim or purpose, but there is no map. There is no set of instructions to follow. There are no correct answers at the back of the book. KPS projects, like some project-based work in schools, have similarities with the way Gladwin (1964), cited by Berreman (1966) and subsequently by Suchman (2007), writes about Trukese navigation:

> Thomas Gladwin (1964) has written a brilliant article contrasting the method by which the Trukese navigate the open sea, with that by which Europeans navigate. He points out that the European navigator begins with a plan—a course—which he has charted according to certain universal principles, and he carries out his voyage by relating his every move to that plan. His effort throughout his voyage is directed to remaining “on course.” If unexpected events occur he must first alter the plan, then respond accordingly. The

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\(^{35}\) Here, I am referring to the classroom as any space or place in which the students and their teacher are working.
Trukese navigator begins with an objective rather than a plan. He sets off toward the objective and responds to conditions as they arise in an *ad hoc* fashion. He utilizes information provided by the wind, the waves, the tide and current, the fauna, the stars, the clouds, the sound of the water on the side of the boat, and he steers accordingly. His effort is directed to doing whatever is necessary to reach the objective. If asked, he can point to his objective at any moment, but he cannot describe his course.

(Berreman, 1966, p. 347)

In comparison, European navigation has resonances with the conventional curriculum. There are objectives, things to achieve and ways to achieve them, almost regardless of what else happens. I do not want to argue a stark or sharp distinction here because good teachers always improvise and adapt as things change in the classroom, but it is inevitably around a plan: the lesson plan.

Plans are designed to keep things on track, to avoid distractions and possible mistakes. In KPS work, there is an inevitable amount of fumbling and mistake making, which, in the spirit of this kind of work, of knowledge production, does not have the same significance as mistakes made in formal classroom settings. In the formal setting, mistakes tend to be corrected. What matters is getting back on course. In a KPS project, mistakes are things to learn *from*. What is interesting is that mistakes in KPS projects seem to be more at home, more a part of the practices that enact the various realities of each project. Nassim Taleb (2012) writes of things that *gain* from disorder, making mistakes and so on as being *antifragile*. He makes a useful observation that contributes to one of the dilemmas I am trying to map in this chapter:

The important difference between theory and practice lies precisely in the detection of the sequence of events and retaining the sequence in memory. If life is lived forward but remembered backward, as Kierkegaard observed, then books exacerbate this effect—our own memories, learning, and instinct have sequences in them. Someone standing today looking at events without having lived them would be inclined to develop illusions of causality, mostly from being mixed-up by the sequence of events. In real life, in spite of all the biases, we do not have the same number of asynchronies that appear to the student of history. Nasty history, full of lies, full of biases! (p. 199)

While I will not be distracted here by the gesture to the theory and practice binary, except to note Edwards’s (2011) argument that theory can be re-enacted as a *mattering* practice, the distinction Taleb makes between lived experience and its
recollection is germane to the problem of passing on the insights and knowledge I have gained. How to convey what I have learned when I am now in an experienced, knowing position to colleagues who may come to these ideas with much the same naïveté as I did? This document traces something of my experience as a newcomer to KPS, as a novice researcher, all the way through to trying to represent all of what has happened in this folio. The entire document could have been reworked so there was more order and logic to it—so that the end point was more or less anticipated by the very first steps. To me, such enactments are unhelpful.

This is a dilemma for all kinds of research that rely upon some form of experimentation. The dilemma can be traced back at least to the origins of modern science: the seventeenth-century dispute between Hobbes and Boyle that was concerned with how to establish scientific knowledge. Shapin and Schaffer (2011) offer a detailed ethnography of the dispute and trace how scientific experimentation was made possible through the protocols established by practitioners in which they could witness and report the outcomes and details of experiments. Law (2008) helpfully offers an account of their analysis:

The argument was that this trust depended on the simultaneous creation of three technologies (Shapin, 1984): literary (the creation of a modest style of writing about matters of fact, with no expression of personal opinion), technical (the creation of specific forms of appropriate laboratory experimentation in specific locations), and social (the designation of a class of people taken to be reliable because they were “independent” witnesses of those experiments and able to write about this—which in the seventeenth century excluded women and servants, and was essentially restricted to men of independent means). Shapin and Schaffer argue that this was a crucial moment in the creation of science and its indirect “modest witnessing”. Indeed, they plausibly suggest that this set of technologies, with variations, still frames much twenty-first century science, and helps to explain why in scientific papers the voice is passive, the figure of the author tends to disappear, and nature appears to speak for itself. (p. 633)

When I read those words of Law and chased down a copy of Shapin and Schaffer’s book, it helped crystallise for me what I think is a generic problem in the sharing of new professional knowledge in teaching. Typically, a lot of professional knowledge is only available to teachers in literary form. In this folio, I have used the usual array of professional and academic literary publications to communicate what I discovered

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36 Even, I suspect, thought experiments.
as I became more and more enmeshed in the various KPS projects taking place in the school. From the early days of academic publishing and peer review, the style of writing has mercifully moved from author-free writing about matters of fact to writing in which the author/researcher is an integral part of the practices that enact research.37

Today, the first and third of Shapin and Shaffer’s technologies of trust are merged into the familiar processes of writing academic and professional papers, chapters and books and their review by peers and subsequent publication. The second technology, following Shapin and Shaffer’s analysis, the technical, is in much of classroom-based research reliant upon a familiarity with the materiality and practices that enact classrooms. Every attempt is made to convey the details of the classroom, but classrooms are not like the airpump, the apparatus that was a focus in Shapin and Shaffer’s research. They cannot be described with the detail and precision that is typically associated with descriptions of apparatuses used to conduct experiments in science. I am not suggesting that reproducibility in science is perfect;38 I want to simply point to the difficulty of relying upon accounts and descriptions when it comes to classroom-related research.

I know from my own experience that when I visited a school that was doing KPS projects, I was much better placed to make professional sense of what was going on. This was also the case with the conference I attended and at which I was able to share the experiences from our school. The professional conversations gave the work a dimension that most practising teachers immediately recognise and trust. I am not sure it is reassuring that my unease in making a case for my contribution to professional knowledge resonates with the debates between Hobbes and Boyle so long ago, but I think it is important to be clear about the limitations of a solely literary contribution, particularly in the case of projects that tend to be positioned on the edge of the routinised hinterland of school. The second element, the creation of specific forms of KPS experimentation in specific locations, is, as I hope the two cases illustrate, an important component of the professional knowledge generated in this research. The teachers in the two cases described in the previous chapter came to realise the importance of the particular materialities of the spaces outside school.

37 See, for example, Helen Sword’s (2012) entertaining analysis of contemporary academic writing.
38 Debates and concerns about reproducibility in scientific research have recently been to the fore (Ioannidis, Nosek, & Iorns, 2012).
You can mock up Indigenous storytelling in a classroom just as you can mock up an art exhibition, but all you are doing then is a theme or a project in school. It is predictable. It is orderly and is easily made to conform to the hinterland of the school. The final component of Shapin and Shaffer’s three technologies is the social—the independent witnesses. While it is the case that all KPS projects, by virtue of community participation had others witness what occurred, it is also the case that a folio, as a component of contemporary academic witnessing, positions you, the reader of this thesis, as an independent witness of the enactment of the cases in this research.

So, keeping these qualifications in mind, I want to return to what I see as the contribution my work makes to professional knowledge. As both of the cases traced in the previous chapter illustrate, KPS work tends to have a disorderliness or unruliness about it. As practices, I often thought they were feral compared with the tidy and ordered practices of the quotidian classroom. While the students, to my knowledge, did not explicitly acknowledge the changes they experienced in KPS work, the teachers did on a number of occasions.

I am not lauding mess and disorder for their own sakes, but this appears to me to be a key characteristic of KPS work, particularly as it applies to student engagement and participation by community groups and experts. To put it another way, if somehow you were able to eliminate the disorder, the mess, I suspect the project would no longer be a KPS project. It would revert to the familiar classroom-based projects with which teachers are particularly familiar. The project would be domesticated; it would fit comfortably into the accepted and acceptable practices with which teachers are familiar.

Enacting KPS projects in this way draws attention to the practices that are less easily assimilated in the ordered hinterland of school. These are, I suspect, the practices that are important in the enactments of engagement of students and community participation. Can I make a demodalised statement about these practices? I doubt it. Somehow attempting to describe these practices in anything other than the cases in which they occur would be an empty gesture. As Law (2008), writing about Kuhn, argues,

this means that how Kuhn describes science resonates with his theory of science. Theory, he is telling us, cannot be detached from its instances. The
parroting of formalisms is empty. The latter only become significant if we know what they mean in practice by being able to link them to, and see them at work in, different specific circumstances. Of course Kuhn cannot take us into Lavoisier’s laboratory, but he does the next best thing. He describes it in its material and theoretical complexity, and asks us to see that the formal articulations of science are about seeing, manipulating, and noticing—even perhaps creating—systematic similarities and differences between otherwise diverse sets of circumstances. (p. 629)

So my two dilemmas are interwoven. I am enacting the mess, the disorder, of KPS projects because mess is enacted by practices, which also enact student engagement and participation by community, either as valuers of the KPS product or as expert input to this work. What I am trying to do is to hold in place practices that are more or less orphans in the hinterland of school. They survive because they interfere with the routine practices of school, but not in a way that makes them unacceptable, although at times, from the teacher’s point of view, they get close to that.

So the interference is gentle enough to survive, albeit with the label and importance attached to a way of working in which the principal is particularly interested. It survives long enough for teachers to see that the interference is good. The students had worked that much out a good deal earlier in both, and probably all, KPS projects at the school.

This, then, is my contribution to professional knowledge: that interference of the kind that occurs within a KPS rubric can generate new realities of school for teachers, students and participants from outside school, the community. Some of these realities manifest as engagement for otherwise disengaged students, others as productive learning partnerships with members of the community with particular expertise and yet others as realities in which student knowledge production is genuinely valued by people outside the usual judging panel of student work. My hope is that the set of experiments that are enacted in this folio goes some small way to encouraging those interested in putting in place modest interferences in the classroom. I hope, in Law’s (2008) terms, this work does not count as part of the problem.

How to interfere in the non-coherent structures of domination? For me this is the great challenge for sociology in the 21st century. I have no answers. But of this I am certain. Research methods that describe and try to enact coherence by imagining domination as a structured whole count as part of the problem rather than as part of the solution. (p. 641)
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The folio: professional contributions

Part 1: The articles

In the first article I wrote ‘Leading A Knowledge Producing School’ (McGrath, 2011), which was published in Leadership In Focus: The Journal for Australasian School Leaders, I introduce the research agenda to other school principals and educational leaders. Having been immersed in the study for so long, it was important for me to take stock of how I got there and reflect on what I did as a principal to introduce and then support the KPS innovation in our school community. The article discusses the origins of the KPS notion and provides a succinct definition of the approach.

I used this article to describe a range of KPS projects that had occurred in our school and categorised them under the headings of (1) product or process, (2) real life problem and (3) community development project. In each of the areas I emphasised the key themes, student engagement, school knowledge and learning partnerships, and highlighted the way students took the KPS work so seriously and showed higher levels of motivation and engagement than in other classroom learning. Each of the stories also showed the different ways in which the teachers willingly moved beyond their ‘regular’ ways of teaching and interacting with students and community. I also emphasised the importance of learning in subjects or disciplines and then in applied knowledge construction that goes beyond the classroom or school knowledge.

The second article ‘Getting the Balance Right: Understanding Student Performance Measures In Context’ (McGrath, 2010), which was published in The Queensland Principal, allowed me as principal to discuss how I have gained some sort of balance between a focus on delivering quality curriculum while ensuring the systemic requirements and priorities are achieved in a meaningful manner. No easy task.

As principal I see my role as instructional leader within the school. I want to inspire my teaching staff to do the very best they can for all their students. This isn’t airy-fairy stuff, this means I must be very clear on the direction for our curriculum delivery and ensure systems are in place to support and guide this. Teachers have an ever-increasing workload and have a great deal of accountability for student outcomes.
In this article I purposefully start by affirming that quality learning and engagement of students is paramount and then I go on to discuss the systems in place to ensure this curriculum delivery is monitored and evidenced through a rigorous set of school and systemic data analysis and teacher professional development. I also discuss the ‘coaching’ model that I have introduced to support teachers in classrooms, which focuses on teacher reflection and data analysis and identifies both student and teacher needs for improvement. The approach is supportive and non-judgemental. I believe that teachers want to do a great job for their students and our job, as school leaders, is to simplify some of the distractions and help them do that. It can all be too much and too overwhelming if the school direction and expectations are not clear or well organised.

I have ensured that all the non-teaching support personnel, such as Head Of Curriculum, Literacy Coach, Learning Support Teacher, work together with me as principal weekly in a coordinated and precise manner to support and coach all teaching staff. This approach is well accepted in a positive manner throughout my school and reflects the ‘expert teacher’ description Hattie (2003) outlines.

The third article ‘Elders Lead Local Knowledge Production’ highlights the importance of understanding that education is more than school. I used this data story to highlight the challenges experienced by many of our teachers in remote and rural locations, and with a specific focus on improving an Indigenous perspective.

In this KPS unit the teacher wanted to teach narrative and wanted to involve local elders as part of a ‘stimulus’ for story-telling ideas for the students. When the elders wanted to change the teachers ideas and plans about what to include, who would participate, how to plan the event and where it would be held, the teacher became a little uneasy. Because this was a re-occurring happening in the KPS work, I decided to tell the story and uncover why it was significant for all involved. With 25% Indigenous students and significant emphasis on improving attendance, KPS work is important to share because it does not put ‘attendance’ or ‘engagement’ as the key issues. This article on Indigenous Story Telling was accepted for publication by the Queensland Indigenous Education Consultative Committee (QIECC) journal but with a change of editor the article has not been published.
Article 1: Leading a knowledge producing schools

Carmel McGrath

Principals need to exercise a strong voice in their communities and continually explain the work of the school and its teachers and the learning of the student in convincing and research driven ways. … So despite the job getting busier, the role of the educational leader has become even more an imperative that relies on a range of curriculum knowledge and skills, and a repertoire of leadership capabilities that ensure quality curriculum delivery at the school and system level. (Bywaters, 2003)

One of my most important roles as a primary school Principal is to voice what is important within my school community, and to develop a ‘community of learners’ so that all students gain a great educational start in life. I believe that at the heart of ‘improving outcomes for students’ is through meaningful authentic learning that engages all students. ‘Engaged learners are doers and decision-makers who develop skills in learning, participation and communication that will serve them throughout adulthood.’ (Murray, 2004)

In this paper, I present work undertaken at our school through the ‘Knowledge Producing School’ research agenda. Firstly I present a description of the Knowledge Producing Schools or KPS agenda and this is followed by some practical accounts of work that has been undertaken over the past few years in our primary school. Student engagement and school community partnerships are key themes throughout the paper.

So what is a ‘knowledge producing school’ agenda?

The term Knowledge Producing Schools and its acronym KPS were first introduced by Chris Bigum about 10 years ago. The idea of schools as sites of serious knowledge production arose from professional conversations between teachers and Bigum. It was an idea that ran counter to the notion of Information Technologies (IT) as the new means to deliver quality teaching and learning outcomes into schools. From these conversations, the idea that schools might, on occasion, think of themselves as sites for serious knowledge production emerged.

Fundamentally, these KPS ideas were essentially about:
1. Reading the changes in the world beyond school as fundamentally about changed relationships which leads to a reconsideration of what roles schools might have in a changed world; and

2. Understanding that in a world of over abundant information what will matter most is making sense of this information and expertise, and for a community this means expertise in itself, knowledge about its own backyard.

(Saffo, 1994)

Knobel and Lankshear provide a succinct definition of the approach in “Making Literacy Real” (2006):

‘Doing pedagogy’ in KPS projects is built on developing new and interesting relationships with groups in their local communities, by engaging in processes that generate truly useful products or performances that are valued by the ‘clienteles’ for whom they have been produced. An important part of negotiating the production of such knowledge is that the product or performance is something that students see as being valued by the consumer or audience of their work and is evaluated using the same criteria applied to evaluating adult-produced products or performances. The students know their work is taken seriously, and that it has to be good or else it will not be acceptable to those who have commissioned it.

I knew that to get this work off the ground some important connections and support networks were needed. These included:

1. Enterprise Education – we won a small grant from the Commonwealth Department of Science Education and Training, but gained much more from support and advice from the external consultant for the project. I recall one very important piece of advice given by the project consultant John Moore, which was ‘stick with one or two key support people’ and ‘start small’ and that is what prompted me to develop the pilot study in a Year 5 class with 2 volunteer teachers. We started where there was a keen interest.

2. Central Queensland University – Through my Doctoral supervisor, the then Associate Professor Chris Bigum became a critical friend for us, presented at our District ‘Outback Learning Conference 2002’ and provided ongoing support and encouragement through teleconferences and liaison with another school in Central Queensland where similar work had already begun.
Through this link, we met Principal Trudy Graham and in 2003 one of my pilot study teachers and I visited the Warraburra State School to see first hand the KPS work.

3. Reference Group – Following our project consultant John Moore’s advice, I talked to a range of local community and business people and it was obvious that I did not have time to spend on building partnerships this way. I decided to ‘start small’ and our initial reference group became a parent who was in ‘training’ at Mt Isa Mines and another person who was a coordinator from the State Emergency Services and who had previous connections with the school. The SES person was also the first person who showed a genuine interest in working with students on a ‘real project’. The SES project became our pilot study. This reference group’s support and advice to teachers superseded my expectations because it really gave us an opportunity to learn so much about how differently we could work and how much more productively we could involve our students in the local community.

4. Learning and Development Centre (LDC) (Literacy) – in these beginning stages we were a District LDC and so this gave us an opportunity to share ideas with many other schools.

Over time I established and re-established our KPS Network, as circumstances and people changed. Later it also included a research partnership with Deakin University, and a professional network with other Queensland Schools including Warraburra State School, Allenstown State School and Toowoomba State High School - Wilsonton Campus where KPS was also being implemented.

At Happy Valley State School our Knowledge Producing Schools (KPS) work, which is predominately incorporated into our Year 4-7 classes, aims to develop students as producers of knowledge, and engage learners through real tasks that have value and are valued within the community.

KPS work focuses on:

1. Creating a product or process

2. Solving a real life problem, or
3. Undertaking a community development project.

Negotiated curriculum and interactive relationships with ‘community’ are pivotal, by:

1. Sourcing community persons as experts or consultants

2. Producing knowledge for community / business groups.

A negotiated approach among key stakeholders is also a key element in the curriculum approach. In early discussions, I spoke passionately with teachers about the importance of genuine negotiation of the learning as an aspect of the approach that really set it apart from other regular curriculum delivery. This approach does challenge. Teachers also found this a useful way to think about whether they had included students, parents, community or business people in the negotiation and creation of the learning and in the production of the knowledge. In some instances, the issue of teachers ‘loosing control’ or feeling the unit was ‘out of their hands’ came up. It is this aspect of genuinely negotiating the learning that requires teachers to take a risk with implementation and tremendous skill in pulling it all together, so that all the demands of general teaching happen, such as meeting systemic and school requirements of planning, teaching, and assessment and reporting.

The other really important aspect of my approach as principal has been to praise and accept ‘all attempts’ so that I enabled teachers to begin where they are comfortable and this has allowed a wide varied of projects to occur and a more supportive culture to develop among staff. Some examples of the projects are outlined here.

**Product or process**

When thinking about ‘creating a product or process’ there are a number of examples that come to mind. The Arts is one area that has often provided authentic opportunities for students to perform or create something for a real audience. Arts based performances are often seen, as ‘fringe’ work, not our core business. Perhaps it is a matter of us putting a different lens on some of these opportunities so that they can produce great learning and knowledge production opportunities for students and schools. In our community two main projects come to mind: Mardi Gras Parade at Rodeo and Rock Pop Mime. These again are opportunities for many students to be involved in learning about how productions are planned and implemented through
much collaboration from teachers, parents and wider community. The notion of accessing important learning from expertise within a certain field or task, is key to the KPS work and a crucial reason why these projects work as they do.

One significant KPS unit undertaken in recent times was a Year 6 Art Exhibition, which was called Valley Visuals, held at the ‘Outback At Isa’ information and tourism centre. The teacher said

“The exhibition culminates the magnificent efforts of the class, consultants and community enterprises that have cooperated as part of the project. It has been an excellent opportunity (for students) and people are seeing the works are already wowed by the standard (of the exhibition and range of art work). The presentation really is aspiring to be truly professional and has done a lot to surprise people.”

During this ‘art exhibition’ project students worked with many community business groups and individuals, including their teacher who has background in visual arts, with a range of local artists, with art association personnel who helped with logistical information about the preparation and exhibition of an artists work, and also with an events coordinator from a major business in town who worked with students on how to plan, coordinate and host the event.

One other memorable KPS unit involved a focus on fostering opportunities for young Indigenous Writers to produce narratives with a theme ‘Me, Myself, I’ for a writing competition. The teacher negotiated a plan with Indigenous elders and families through our local Indigenous liaison worker. I remember the teacher recalling how he quickly lost control of the unit. He told me how he had envisaged the elders coming to school, telling some stories and getting the kids started on their writing. But as it happened, in the first meeting with elders, they would not hear of the story telling being done at school and a visit to a significant local story telling place was organised. The organisation was predominately done by the elders but some of the technical and logistical aspects, such as permission slips and risk assessments, being done by the teacher. The day was a mix of oral story telling about childhood experiences, storytelling about rock paintings, story telling about the children’s families and great experiences while walking amongst the rocks of the creek bed and eating bush tucker prepared by the elders. The experts in the cultural and historical aspects were these elders. The teacher’s expertise was in the pedagogical cohesion.
Back at school the students had a great foundation and shared experience to draw on for their narratives. The first drafts were done quickly. From this the teacher then taught some very focused elements that would improve the student writing, such as grammatical features and skills of expanding description through nominal groups. These otherwise seemingly ‘boring’ lessons were made meaningful through the rich experience where the students had really connected with their land, their elders and their stories. The teacher reflected on how much he had learnt from the elders and how it was challenging to ‘loose control’ of the unit, but this is something that I have seen through a lot of the work and I always reassure teachers that they don’t have to be and can’t be expert in everything. But more importantly they are masters at pulling it all together. When teachers realise this they seem more confident in continuing to work in the negotiated and somewhat unpredictable space. What a learning opportunity this unit offered to the Indigenous students and to their teacher, who has now left our community to go to another school but with a much richer knowledge of how important Indigenous stories and places are to its people.

**Real life problem**

The State Emergency Service (SES) project was a great learning experience for all involved. As part of my initial investigation into what our students could do in our community, I visited a number of business and community organisations to discuss the notion of students doing some valuable work or investigation for them. During this time I spoke with local SES management. This was exciting because they were the first of our community contacts to respond with a genuine task for our students to research. The SES wanted to know what people in our community did and did not know about the role of the SES in its voluntary capacity. Initially, I met with a SES representative and then spoke to interested teachers about the ideas and task. Two teachers volunteer to take on this KPS pilot study, so I set up a meeting with the SES representative, teachers and a few student representatives. At this meeting the small group discussed the problem, possible steps to be taken to investigate, how progress would be communicated, and what a final product or outcome might be. The next step was for the lead group to then take this information and ideas back to the class. The other aspect, that teachers were also interested in here, was how much of the class integrated unit would be devoted to this and what else could the unit include. My main role was trying to challenge them to go ‘beyond the classroom’ for their
ideas and contacts through lots of informal brief discussions throughout the establishment and into the unit.

The teachers met with their class and outlined the task. They brainstormed a series of steps to undertake to task. First they needed to research all about SES, before inviting an SES representative in to ask clarifying questions and gain ideas to formulate the community survey. One of the Year 5 students was able to show a range of very positive research and enquiry skills that really changed how staff and students had previously perceived him. This student enjoyed creating the ‘product’ for the local SES, but more so, enjoyed the learning and interaction with community personnel, saying “Teachers had to ask questions too 'cause they didn’t know either.” This student also proudly presented the classes’ work at a Principal’s Business Meeting and spent several hours preparing a very well polished talk without any scaffolding from teachers.

I remember the teachers being impressed with the energy and motivation all students demonstrated to the task of developing, collating and presenting survey data. One of the really neat things that happened was that in the course of SES wanting updates and a final product, they just asked the students to email them and then suggested that the final product could be done as a PowerPoint presentation or something similar so that the data could be shown pictorially or graphically. The SES said they wanted to be able to take the data and use it at their state council meeting. Often teachers create ways to teach a PowerPoint or invent reasons to email but this was just done so matter-of-factly that it was almost presumed the children would know how to do it. The SES was asking students to do things that they would ask any other group or colleague to do.

When asked to reflect on the SES unit the Students told me ‘we liked learning about the SES’, ‘it was good interviewing people’, ‘we did all the work ourselves’, ‘the teachers had to ask questions too’ and ‘we got to work with people (referring to other students) that we don’t normally work and that was good’.

During this SES work students took this task very seriously because it was a real job the SES needed them to do. The SES showed confidence in them. The teachers were surprised by the notable improvement in students’ teamwork skills, as compared with what they had shown previously in other class time.
The teachers also told me that they felt a bit uncomfortable when planning with community people, because it meant that the unit was ‘out of their hands’ at times. The student feedback was overwhelmingly positive. They loved working on a real task for the SES and were incredibly self motivated to undertake these otherwise tedious tasks such as writing surveys, sending them out, chasing people up for them and then collating the data. The students said they enjoyed that unit far more than any other unit that year, which certainly surprised the teachers. Teachers thought students worked well on ‘basic’ lessons because they needed that knowledge to be able to apply it to further tasks. Teachers said they thought students would have rated their previous ‘gold mining’ unit higher because of the hands-on fun of digging for gold in the classroom mock gold field but they overwhelming preferred the SES project.

The SES staff was very impressed and surprised by both the findings and the manner in which the on-going communication updates and final presentation were completed. The Yr 5’s information package, including CD and hardcopy of results, was used by the local SES to seek additional funding from their state body. This funding was used to promote a local awareness-raising campaign and the students were very proud of their contribution to this outcome.

**Community development project**

‘After seven months of care, a number of rare *Eucalyptus nudicaulis* seeds were planted along the Leichhardt River at the back of Happy Valley State School recently thanks to Xstrata Mount Isa Mines, Southern Gulf Catchments (SCG) and Happy Valley State School students.

In August 2009, approximately 1000 *Eucalyptus nudicaulis* seeds were collected west of Handlebar Hill on the Xstrata Mount Isa Mines lease and cared for by Endemic Plants for approximately seven months, before they were ready to plant.

In total, 45 plants were planted with the assistance of Happy Valley’s Year three and four classes … The students said they look forward to monitoring the plants’ growth over the coming months.’

(Byant, 2010, p. 25)

The Year 3 and 4 unit on Local Catchments involved a good deal of negotiated learning and partnership building between SGC and our school. At the southern
border of our school there is a causeway that is dry most of the year but when it rains, it is extremely dangerous with flash flooding. As part of the learning unit we had to consider the safety aspects of studying a local waterway so that students were not encouraged to venture into the area. This aspect was negotiated through a plan with local police, the SGC team and the teachers.

While on the local catchment excursion one interesting point came up. The teachers and the Landcare staff pointed out how they had been surprised by some students’ knowledge of the terrain and aspects of mapping. When talking further teachers discovered that many of the students could make connections in the learning to their experiences out bush or camping. While on the excursion one of the Dad’s, who was admittedly no so keen on school as a youngster, told me that his son was really interested in this unit and really wanted him to come along for the day. I commented that his work with the ‘catchment transects’ was one of the outstanding ones mentioned to me by the teacher. The parent made the comment that his son loves to go out bush with him and has always taken a keen interest in what’s around him on such trips. It was a nice two-way connection in the learning from home to school. These are some great moments that just cannot be measured but they do have some great impacts through the relationship building.

**Conclusion**

To be a ‘Knowledge Producing School’ means to promote higher level thinking and develop ways for students, teachers and community personnel to work together to produce meaningful connections to people and things within their learning. The KPS work positions students as producers of knowledge. It uses ‘real tasks’ as a catalyst for bringing together expertise from various fields within the community, and the end result is that student are engaged in both learning the ‘basics’ of subjects as required but also using higher level thinking and skills to producing ‘knowledge’ for a specific purpose in their learning community. Students take the work seriously and teachers are excited by the engagement in learning.

**References**


In this paper I present a practical account of how I have struck a balance between student performance measures and quality curriculum. From my perspective, as a Primary school principal in Queensland, it is important to have school wide systems and a broad view of education, in order to strike a balance between increasing national demands of ‘accountability and transparency’ and the implementation of a meaningful curriculum that engages all students in valuable ways.

The here and now

In current debates about schooling there are many tensions for between schools and governments as educational and political bodies try to make sense of and respond to what can at times appear to be a maelstrom of agendas. The current, often business inspired, indicator terms such as quality, innovation, change, client engagement, accountability, back-to-basics, conservative creativity, outcomes, boom and bust, market forces and standards, flag an increasingly confused policy climate.

In recent times, schools have come under mounting pressure to ‘raise standards’ with ever increasing calls from governments and top-down strategy to be ‘accountable and ‘transparent’ by way of information that is made available to the broader community. Schools are required to report on Year 3,5,7 and 9 NAPLAN test results, disciplinary data, teacher qualifications, retention data and so on. One suggestion is that this information is available for parents to access to make informed choices about their selection of schools. The recent MySchool Website debate has highlighted educator’s concerns about the validity of what information and comparisons are ‘out there’ under the guises of transparency and accountability. For example, in the instance where comparisons on the MySchool website are made between a primary school in remote North West Queensland and an all girls’ high school in Sydney as ‘like schools’, I do wonder about how relevant or credible the comparisons might be.

It would be all too easy for schools to cave under the pressure of these issues alone and focus primarily on improving NAPLAN results so that data in the public forum is more favourable to the school. In saying this, I am certainly not diminishing the
importance of improving literacy, numeracy or for preparing our students well for the national testing, so that they do their best. However, I am simply arguing that Principals and teachers should not lose sight of the bigger picture, that we are focused on educating every child to achieve their potential in many areas, including academically, socially and physically.

‘The concern about school retention and engagement in general is a two edged agenda – it is about excellence and accountability in educational provision. But it is also about social justice.’  

(Vibert & Shields, 2003)

Classrooms are made up of a group of individuals, from sometimes very diverse backgrounds, which come together to learn and develop a sense of ‘belonging’ within that class and that school.

[The] assumption of smart and dumb kids is so deeply ingrained in our society that it is hard to imagine an alternative. But the alternative is right before us: All human beings are born with unique gifts. The healthy functioning of any community depends on its capacity to develop each gift. When we hold a newborn we do not see a smart or dumb kid. We see the miracle of life creating itself. The loss of that awareness is the greatest toll exacted by our prevailing system of education, in and out of school.

(Senge, 2000, p. 42)

Fullarton’s (2002) Longitudinal Studies of Australian Youth research argued for ‘participation in extra curricular activities related to the development of a sense of ‘belonging’ that in turn promotes a sense of ‘self worth’ and a decrease in dropping out, in particular with students at highest risk.’

When I talk to parents, they tell me the most important things for them, are that their children are safe, have friends, like their teachers, enjoy learning, and are progressing at school. In regards to the NAPLAN testing, parents I speak to seem more concerned that their children are at ease with the testing and that the results are put into perspective with other class data.

Testing alone will not raise standards and I argue, that more than ever, it is essential Principals and Teachers need to make connections with students and parents about the meaningful learning and outcomes in schools. Connections need to be made between systemic data and individual data and progress, between NAPLAN style
assessment preparation and meaningful curriculum opportunities and between the students, parents, teachers, teacher aides, classroom support persons and the school community, as these are all important contributing factors in the educating of all children. As principal this has been a key focus in my role with staff and within our school community.

A story about a boy called Peter comes to mind here. Peter was a Year 5 student who was achieving average results in most areas but ‘effort’ was consistently low and ‘behaviour’ was well below expected standard. He was bright and despite some disciplinary absences also generally achieved above average in Maths. Peter was a reluctant writer and often disruptive in class and the playground. His mother was very supportive of the school.

In term three Peter’s teacher developed a Community based Arts Project, which included students working with community consultants and artists to develop and present their own art exhibition in the local tourism and historical centre. Peter excelled. He became a leader within his group and his mother became a key helper in the organisation of the event. Her business background was invaluable. The teacher tried to foster student strengths by allowing them to work or specialise in certain areas, for example with Peter’s maths strengths the teacher encouraged him to work in the fundraising committee. He quickly started to take on extra organisational tasks and was always keen to give updates on the committee’s progress. The changes in Peter were small but significant: he wanted to be involved in his group, he wanted to have his photo taken with works completed, he was keen to give updates on progress to class visitors, he was visibly happy to see his mum come to school and the incidence of inappropriate behaviours began to diminish. When I asked Peter and a class mate to reflect on their involvement in the unit, Peter’s friend said “Well you’re (referring to Peter) not getting in trouble so much now” and Peter replied with a wry smile ‘Oh yeah’. Over the course of the project these two boys voluntarily visited me in my office a number of times to update me on the work. One day when I asked ‘Are you two enjoying this work?’ they replied in unison with beaming smiles ‘Yeah!’. Following this unit Peter’s progress in all areas continued. This year, now 3 terms later he has now had no disciplinary absences and both in and out of class behaviours are appropriate. Peter’s teacher noted very high performances in maths and much more willingness to ‘write’ without continual teacher prompting.
Behaviour and Effort ratings on his first semester report were all improved on the last report card.

**So how do we get the balance right?**

There are two key aspects of work in our school that have significant impact on improving student performance: (1) implementing a meaningful curriculum and in this paper I want focus specifically focus on one initiative in our Year 4 – 7 classes known as a ‘Knowledge Producing School’ or KPS agenda, of which Peter’s story is one example; and (2) implementing our student performance monitoring system that links directly to professional support for teachers, and which is a school wide system and culture that I have developed with staff over the past 9 years.

**What is a knowledge producing school or KPS agenda?**

Peter’s story was one example of work that emerged within ‘Knowledge Producing School’ (KPS) agenda. Under the guiding principles of the KPS projects teachers and students:

1. Create a product or process
2. Solve a real life problem, or
3. Undertake a community development project.

Negotiated curriculum and interactive relationships with ‘community’ are pivotal, by:

1. Sourcing community persons as experts or consultants
2. Producing knowledge for community / business groups.

A big focus in our district and in our school is supporting teachers and other specialist staff to understand our student data. In order to improve outcomes, we need to be clear about what data to access and how to make the best use of it in a consistent way across the school. There is data and data – and it is important to remember that not all things can be or should be measured and it is not just the things that can be measured that matter to the overall development of a child.

A Year 4 student named Jordie was not meeting year level benchmarks in all areas and teachers described him as often disruptive during lessons and attention seeking, a
bit of a ‘class clown’. He had also been suspended for fighting and showing aggressive, defiant behaviours. He was liked other boys in his class and his parents were keen for him to do well. Their involvement in school was generally through school requested interviews and at other more traditional events such as sports day. Jordie was described as looking sullen in class and seemed reluctant to engage in conversations about his work. When Jordie’s teacher noticed that he and his group of friends were interested in trucks and mining work, she decided to try to pursue this interest with them. Jordie’s dad was a shift worker and it was often his mum who came to school if there were any ‘issues’ to deal with. As part of some ‘free’ activity related to their local resources unit, Jordie had started to build a small-scale replica of the underground mine. One morning after night shift Jordie’s dad came in the school, at his son’s request, to visit the classroom and see his son’s construction. The teacher welcomed his visit and observed that the talk about the replica was very technical and suggestions were flying back and forth between father and son about what was right and what needed to be added and so forth.

Following the work in this unit Jordie’s Dad became more involved in Jordie’s work at school and developed a good relationship with the teacher. Jordie was an enthusiastic leader, especially among other boys in the class, and this generated a great deal of spontaneous encouragement from other students that their parents, particularly dads, should get involved with the project. Perhaps one of the most interesting things was that we saw a significant shift in Jordie’s attitude and mood. We saw lots of smiles and he was also keen to share his work during my class visits.

I recall one day when he actually grabbed me by the arm and wanted me to see his work before I left. How could I not go and spend the time to look and listen to his sharing. This is what it’s all about! Teachers were making the connections between family, interests and learning. The class teacher jumped on board with this unplanned interest and interaction, and fostered the relationships and learning, and so began the ‘real’ unit of learning, which really made significant links to science lessons and on site learning at the mine, about the local resources, occupations and the industry. When asked about the ideas for the unit the teacher made the following reflection:

“Originally (I got the ideas) through discussion with students regarding what their parents did. The students knew they (the parents) worked at mines but just assumed that they were all underground miners. So I looked at
opportunities for the unit, ... utilising places for learning outside the classroom;

... getting my hard to motivate boys interested – they like trucks, machines – they see it as relevant because most of them say they want to work in the mines when they’re older;

... utilising parents and community members as experts (especially Dads because the students look up to their Dads and if the Dads are helping them and showing interest in their schoolwork then so will they.) I bounced ideas to determine direction of the unit with Principal, co-workers, students and community people. My personal belief is that students should have knowledge of their community, I mean what goes on in the mine, that is the vein of existence in this town.”

During this unit many of the Dad’s came on a regular basis to the class and at all sorts of different times that didn’t match nicely with the school day. Often before or after shifts and this often meant students were voluntarily working on their projects before and after school and at lunch times. This is also a reoccurring pattern of behaviours that teachers have observed during KPS projects.

Jordie’s, and earlier Peter’s story, are two of many I am proud to tell, about how the work in our ‘Knowledge Producing Schools’ innovation has inspired and made a difference to many students by engaging or re-engaging them in meaningful learning for the classroom and beyond. Gathering data is equally about monitoring and fostering student engagement and life long learning skills (Lawson, Askell-Williams, and Murray-Harvey, 2006) as it is about academic data. When used well, both can complement the other in providing a fuller picture of student outcomes.

In the next part of this paper I want to focus more on the nitty gritty of how a school wide system of monitoring student performance can be achieved.

Monitoring student performance

School leadership development should be approached as multi-dimensional, encompassing the processes of school-wide learning, culture building and creation of school-wide pedagogy, and focusing on the mutualistic relationships of Principal-leaders and teacher-leaders in these processes.

(Cuttance, 2001)

Our school wide focus on ‘data’ has been developed over the past 9 years in our school. When I arrived 9 years ago the school had some key data gathering systems
for all year levels. The data was gathered and monitored by teachers and I was able to gather summaries through my Deputy and Head Of Curriculum. We had focused professional development in key areas, especially in literacy and numeracy. We also had in class visits and coaching by our Learning and Development team, but this team also serviced all schools in our district. We had a large number of beginning teachers with most teachers with 0 – 5 years experience and a very small percentage of teachers with over 10 years experience. We also had a support team including a learning support teacher, Deputy Principal and Head Of Curriculum.

There were systems in place but they needed alignment and coordination to streamline the process. One of the main changes that have occurred since the 2002 is that now our teachers really own their student data. When we look at school, class or individual data there is not a blame mentality, but rather it is viewed through a consistent framework ‘What’s so? What’s possible? What’s missing?’ A positive culture of understanding and using data has developed out of a system that links data analysis with teacher professional support. The system is implemented and monitored in a very coordinated and precise way that has taken time, dedication and perseverance to embed.

Standardised tests are point in time results and can be useful in showing comparisons to school, trends and individual students’ semester results. Currently these standardised tests are only done in key juncture year levels, Year 3, 5, 7 and 9. This data gives us key trends in strengths and weaknesses in certain aspects of literacy and numeracy and is important data to explore with staff. There definitely needs to be a whole school approach to understanding this systemic data and ensuring that specific needs are addressed in programming and planning and in teaching and learning. However, systemic data is ‘point in time’ and needs to be put into perspective with other learning and assessment data gathered at the school and classroom levels.

Through District collaboration we have developed and now utilise a comprehensive and consistent set of assessment tools to monitor and inform student progress, support constructive feedback to teachers about teaching and learning in the classroom and address professional development needs. Data is collected on individual students at specific periods throughout the year, as indicated on our whole school curriculum plan.
At the beginning of the school year, I used to run induction sessions on this internal monitoring system. From staff feedback I have now developed a different approach. Because new staff often have so much to take in and are often beginning teachers, current staff suggested they induct their colleagues in the data system when it was appropriate. This ensured it was done gradually and in a supportive personalised manner. For example, some teachers found the data input into an electronic system difficult and needed sessions on that, while other teachers new to a sector may need more help using and understanding the assessment tools at that year level.

I focus teachers on purposes, value and role and responsibilities of the data system. The essential elements of my message are that teachers can ‘make a difference’ by improving outcomes for all students and that it is important we have high expectations, set goals, monitor progress, celebrate the achievements and share these with relevant colleagues, students and parents. The other key element of my work in this process is the discussions about data that leads to providing better support for teachers individually or as groups within our staff. I lead and coordinate our support team so that we response to student data analysis and teacher’s identified needs.

The following is a brief outline of the process, which includes: Assessment, Reflection, Data Discussion, Planning and Explicit Teaching. These elements are all seen through the lens of on-going professional development and support for teaching staff.

**Assessment**

The essential aspects assessed across all year levels include mathematic, reading levels, writing tasks, spelling, and for early years speech language levels, sound letter and sight word knowledge. With the exception of the Prep Year, the data from the end of each previous year is moved into data collection sheets for the beginning of each school year, so that each teacher can easily access a core set of data for class and individual groups.

**Reflection**

After the data is collected and recorded, I provide teachers with reflection questions under the framework of ‘What’s so? – Where are things right now?, What’s possible? – Where would you like to be?, and What’s missing? – What do you need to do to get there?’, which guide the reflective process. At this stage, teachers and
students work together to ensure individual and year level goals are set and shared with parents. Student individual goals address aspects of academic and social development according to need. Later these goals are again monitored and assessed, and generally toward the end of term these achievements are also shared with parents.

**Data analysis**

Following the reflection phase, I meet with each teacher to discuss the student data analysis. These chats are conducted each term either individually or in groups. From teacher feedback I have modified the process to ensure that the first term chat is done collaboratively ensuring that one current teacher is teamed up with each new teacher to support staff in understanding how the system operates.

During discussions teachers are able to identify issues. For example one teacher identified a number of students as not progress in reading levels, as shown in the Graph 1 below. We discussed what could be done to help improve the results. These commitments to action were recorded and then a support person was identified. In this case the Head Of Curriculum, with a background in reading recovery, worked with the teacher in modeling and coaching guided reading lessons. A sample of such recordings is evident in figure 1.

*Note names and year levels have been removed to ensure confidentiality.*

**Graph 1. Term 2 Data**
<table>
<thead>
<tr>
<th>Class Teachers – Trends and Issues</th>
<th>Further Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech – very low (absences, illness and referral), 2 students very high reached target 13, 19 students reached 9 or higher.</td>
<td>Staff Inservice – reading as in Year 1/2</td>
</tr>
<tr>
<td><strong>Reading – steady improvements from term 1 – 2. Very low and no movement (4 students)</strong></td>
<td><strong>Literacy course / concepts about print really good – PD for Teacher– analysis of student work</strong></td>
</tr>
<tr>
<td>Sight words / spelling – same low students / caught in net, a couple dropped, links to poor reading – sight words were different so the comparison was not same (weekly testing)</td>
<td>Functional grammar PD</td>
</tr>
<tr>
<td>Writing – general trend upwards in knowledge of generic structure, text features, spelling similar – lots of stimulus for low students and incorporate teaching strategies to match curriculum model</td>
<td><strong>Work support (Support Teachers)</strong></td>
</tr>
</tbody>
</table>

**Planning**

Following the data chats, I meet with my support team including the Learning Support Teacher, Head of Curriculum, Literacy Coach and Deputy Principal. During this discussion we look for trends across the school, both strengths and weakness, and then ensure each teacher’s professional development needs are addressed by assigning one particular person from the team to follow-up with them. My aim with this approach is to ensure we have a very focus and coordinated approach where material and human resources are aligned to targeted areas. For example, a teacher may have a need to improve guided reading lessons and has asked for support. I might suggest the HOC because she has expertise in this area, but the Literacy Coach, who also has the expertise, tells me that she has already built a good working relationship with that teacher and so a change is made and everyone is very clear about their roles and responsibilities. This sort of clarification and negotiation within our team took at least a term to ‘get right’. Importantly informal networking and support also occurs but the coordination and regular communicating among the support team means that we have ensured a more equitable distribution of the support for all teachers.
Whole school issues are addressed in workshop sessions for everyone, and also include teachers sharing good practices within the school. A good example of this is in the major focus we have had on ensuring modifications are an integral part of programming and teaching. One teacher, who had a class with students at extreme ends of the academic spectrum, needed support with managing different abilities in the classroom. As part of our support, I encouraged her to meet with Advisory staff, participate in the inclusion program ‘On the Same Page’ and continue work with our Learning Support staff. Through consultation, I also nominated this person for our District Curriculum Leaders Project, as a way for this teacher to be supported in a proactive manner through a quality professional development program. Following her involvement in the Leaders Project and with the encouragement of our Learning Support staff, the teacher shared her modification work with our staff as part of a session run by the Learning Support staff on programming. The result has been that all teachers are now implementing modified programs and many teachers have now taken up a similar model used by this teacher.

Explicit teaching

As principal I have a strong focus on supporting teachers to teach. I visit each classroom in the school several times per year to observe teaching and learning. The support team works with teacher in classrooms on a regular basis. These visits are negotiated with teachers or occur as per their requests, for example a teacher may wish to be observed implementing a lesson where they are trialing a new strategy and the teacher may want to show something that has been a great success in their class or with a particular group or individual.

The classroom visits are followed up by a conversation that ranges from an informal chat to a more formal coaching session, depending on the individual experience, circumstance or need. Other general sharing about practice is also done at staff meetings or professional development workshops. For example, through an analysis of reading data we discovered that one teacher had very good results with mix ability grouping in reading through a reciprocal teaching method. The Literacy Coach shared some of these results in a reading workshop and following this, several teachers asked to view this teacher’s lessons. The teachers, who visited, then tried the same approach within their reading programs. I organised release for this to happen, and our Literacy Coach offered follow up support by monitoring the implementation
and facilitating a professional sharing session. The sharing and response was very positive.

One of the great outcomes of the regular data talks is that teachers and support staff have a chance to celebrate the changes that are made. The graph below shows the changes that occurred as a result of timely intervention and support from the HOC with guided reading. The records of data analysis also is a great prompt and check for me, as it allows the teachers and I to record improvements or barriers and to record support needed and then again to ensure it has occurred. It helps tell the story behind the changes in data.

**Graph 2. Term 4 Data**

![Graph 2](image)

**Conclusion**

As principal I focus on ensuring systems and processes are in place. I focus on ensuring that we have high expectation for all students. Through meaningful curriculum, such as that described in the ‘Knowledge Producing Schools’ agenda, we are able to engage students in valuable higher order thinking and knowledge production. But balancing this with monitoring student progress is also essential. Through the implementation of a school wide student performance system, we are able to target regular and timely intervention or extension for students and provide relevant professional development support for teachers.
I believe this system of support and monitoring ensures our teachers are demonstrating the skills of ‘expert’ teachers as described by John Hattie. John Hattie (2003) describes ‘expert teachers’ as more flexible and opportunistic in pursuing the learning needs of individual students. ‘Expert teachers are more adept at monitoring student problems and assessing their level of understanding and progress, and they provide much more relevant, useful feedback. Expert teachers anticipate and prevent disturbance.’ (Hattie, 2003, p. 7)

References


Article 3: Elders lead local knowledge production

Carmel McGrath

At Happy Valley State School our Knowledge Producing Schools (KPS) work, which is predominately incorporated into our Year 4-7 classes, aims to develop students as producers of knowledge, and engage learners through real tasks that have value and are valued within the community.

KPS work focuses on:

1. Creating a product or process
2. Solving a real life problem, or
3. Undertaking a community development project.

Negotiated curriculum and interactive relationships with ‘community’ are pivotal, by:

1. Sourcing community persons as experts or consultants
2. Producing knowledge for community / business groups.

A negotiated approach among students, teacher and community is a key element in the curriculum approach. As principal, I talk with teachers about the importance of genuine negotiation of the learning as an aspect of the approach that really sets it apart from other regular curriculum delivery. This approach does challenge. Teachers also find this a useful way to think about whether they have included students, parents, community or business people in the negotiation and creation of the learning and in the production of the knowledge.

In some instances, the issue of teachers ‘losing control’ or feeling the unit is ‘out of their hands’ comes up. It is this aspect of genuinely negotiating the learning that requires teachers to take a risk with implementation and tremendous skill in pulling it all together, so that all the demands of general teaching happen, such as meeting systemic and school requirements of planning, teaching, and assessment and reporting.
One very memorable KPS unit involved a focus on fostering opportunities for young Indigenous Writers to produce narratives with a theme ‘Me, Myself, I’ for a writing competition. The teacher negotiated a plan with Indigenous elders and families through our local Indigenous Education Worker. I remember the teacher recalling how he quickly lost control of the unit. He told me how he had envisaged the elders coming to school, telling some stories and getting the kids started on their writing. But as it happened, in the first meeting with elders, they would not hear of the story telling being done at school and a visit to a significant local story telling place was organised. The organisation was predominately done by the elders but some of the technical and logistical aspects, such as permission slips and risk assessments, being done by the teacher. The day was a mix of oral story telling about childhood experiences, storytelling about rock painti ngs, story telling about the children’s families and great experiences while walking amongst the rocks of the creek bed and eating bush tucker prepared by the elders. The elders provided their expertise in cultural and historical matters.

I recall the teacher reflected that when he talked to the families and elders about the storytelling, one Grandfather said ‘That’s good because I can show ‘em the rockpaintings. They tell stories too.’

Back at school the students had a great foundation and shared experience to draw on for their narratives. The first drafts were done quickly. From this the teacher then taught some very focused elements that would improve the student writing, such as grammatical features and skills of expanding description through nominal groups. These otherwise seemly ‘boring’ lessons were made meaningful through the rich experience where the students had really connected with their land, their elders and their stories. Unfortunately the students’ work was not ready for the competition but they did enjoy sharing them with the elders who returned to listen to the completed stories.

One student returned from the adventure ready to tell the story about how he got his nickname “The Wagtail” from his Grandfather. It is a great story called ‘Willie Wagtail’.

*Willie Wagtail*

*Back when I was a little child, my Grandad was cooking up eggs when my Grandad woke me up and said, “We have to go to the last trough and fix it or*
the trough will keep leaking and it will break.” When the trough breaks Mavis will be angry at me because this is her land.

So Grandad and I were trying to fix it. As we were trying to fix it all the cows were watching us fixing it because I could see them real thirsty. All the pigs, the horses and the cows were lying down watching us trying to fix the trough. It took us about an hour but we still had fixed it.

Then I told my Grandad that I was going to get a drink of water from the clean big tank we had. After my hand was full of water I told my Grandad that I was finished getting a drink. So Grandad and I were heading back home to Rocky Glen. While we were heading there, we saw the Willie Wagtail was flying next to us the whole way back.

That next day when Grandad was packing up to go, we saw the Willie wagtail again. So my Grandad went up to give the Willie wagtail a piece of meat that we had cooked last night. Then we cruised back to town and we saw the cows and pigs and horses drinking out of the trough that we first fixed while on the way to Rocky Glen. We then moved to town and we saw him again just before we hit the road. I said “Grandad, I reckon that little Willie Wagtail is smart.” And now every time we go out to the Rocky Glen we always see a little bird next to us. And that’s where we met the Wagtail.

The end.

The teacher reflected on how much he had learnt from the elders and how it was challenging to ‘lose control’ of the unit, but this is something that I have seen through a lot of this work and I always reassure teachers that they don’t have to be and can’t be expert in everything. But more importantly they are masters at pulling it all together. When teachers realise this they seem more confident in continuing to work in the negotiated and somewhat unpredictable space. What a learning opportunity this unit offered to the Indigenous students and to their teacher, who has now left our community to go to another school but with a much richer knowledge of how important Indigenous stories and places are to its people.
Part 2: Book chapter

Contributing to the writing of this chapter with Leonie Rowan has been a great pleasure, not least because I have long admired Leonie’s work in Student Diversity and Education. I hope that this publication will appeal to a slightly broader audience than do my articles, which are written specifically for school leaders or principals. The book chapter ‘Relationship Centred Schooling and Knowledge Production’ is one of a range of pieces in the text ‘Transformative approaches to new technologies and student diversity in futures oriented classrooms: Future Proofing Education’. (2012)

The book is divided into two sections. The first section acknowledges the range of challenges that the contemporary environment poses for educators and the dominant ways in which schools have sought to demonstrate their response to the technological dimension of this change. This is followed by an exploration of the challenges that patterns of educational success and failure pose for educators in a range of contexts. The chapter Leonie and I have written is located in this latter section.

Rowan and Bigum put forward an educational agenda in this publication characterised by the label “future proofing”. The term is not used to signal any naïve, unsophisticated or innocent belief that any educational framework can offer guarantees of future social, economic and emotional security but rather to indicate a commitment to educational agendas which look beyond the boundaries of schools to think about how every single educational moment is working (or not working) to provide diverse kids with not only the skills but also the attitudes, dispositions and self belief that will serve them well in a future that none of us are in any real position to be able to describe.

Together, all chapters in the text explore a range of contexts and analytical and conceptual devices to explore key sites within which contemporary educators can make use of diverse forms of technology—some computer based, some not—whilst working towards bigger educational and justice agendas predicated on commitment to developing education which seeks to change relationships between kids and knowledge, kids and school, kids and communities.

In my role as principal I often write and think about the practical operational aspects of teaching. In this publication and in my dissertation I have had the opportunity to
think more deeply about the theoretical and aspirational elements of education. I like to think this chapter gives the best of both worlds and allows the reader to have their ‘head in the clouds and their feet on the ground’.

‘Relationship Centred Schooling And Knowledge Producing Schools’ (McGrath, 2012) explores the ways schools, students and teachers can be brought into a different relationships with both knowledge and community through an educational initiative known as knowledge producing schools. A key idea for this chapter is the ability for particular approaches to school to allow even the most ‘at risk’ learner to see themselves as having skills that are recognised by, and valued within, diverse social and educational contexts.

**Relationship centred schooling and knowledge producing schools**
Carmel McGrath, Deakin University
Leonie Rowan, Griffith Institute for Education and Change

**Introduction**

There are a number of important questions at the heart of this book: What is the purpose of schooling in the 21st century? How has this purpose changed since the current model of schooling emerged? How should, and to what extent can, schools adequately prepare children for an unknowable future? What role can technology play in a future focused educational agenda? Who wins or loses from our efforts in education? And, perhaps most importantly of all, how can real educators make a real difference, to real children, in the complex real world conditions that our work is situated within?

Any one of these questions is, enough, individually, to keep anyone awake at night. Taken together, they generate both a sense of disquiet and a desire to actually do something different. This desire for change has been the basis of a sustained conversation between groups of educators in Australia for the last ten years. As we have faced the daily challenge of deciding what to do with our students—be they in schools or in universities—confronted depressing data which indicates that some kids continue to do better than others and encountered teachers who no longer really believed that schools were places for social transformation our discussions about
what to do now, next and into the future lead us to explore new ways of thinking about education.

Underpinning many of our discussions is the recognition that in a world of change the functions and structures of schooling remain frighteningly constant. This is despite appearances to the contrary. Certainly there has been an increase in surveillance, testing and reporting. Curriculum has been constantly and publically reviewed. But these visible signs of “reform” are not to be mistaken for any actual innovation within schools. Rather, the endless reviews and constant scrutiny have helped to naturalise approaches to education that are frightening in their allegiance to a ‘back to basics’ approach to educational crisis and depressing in their lack of creativity.

Some other questions emerge. What if schools were (allowed) to be re-imagined? What if they were (able) to be re-purposed? What if we could let go some of our most entrenched beliefs about how kids and schools and teachers should act and move to ask “what if”? What if no one had ever seen a school before: what would it look like? What would we do? Could we then stop trying to dumb down the world to make it fit into schools? Or could we perhaps make schools fit the future?

There are a great many ‘what ifs’ outlined here and it is easy to read the list as an implied critique of the previous and current work of educators. After all, teachers are easy targets. But this is not our intent. The world is full of committed passionate teachers—from childcare through to adult education—and most of them deserve our respect. So our list of ‘what ifs’ isn’t to signal a paper that is focused on sniping at those on the front line. Rather, it is designed to recognize that there may be more that can be done to prepare diverse children for diverse futures and to close the gap between those who win and lose at school. In Australia, for example, recent data suggests that more than 10% of all primary school students fail to achieve literacy and numeracy benchmarks in year 3 (Gillard, 2009). Rates of failure are dramatically worse for some students than others. 15% of children in remote areas, 22% of Australia’s indigenous children, 38% of children in very remote and 38% of students from low-socio-economic families consistently fail to meet national and international literacy and numeracy benchmarks (MCEECDYA Senior Officials Committee 2009).
The short and long term consequences of educational alienation and failure are, of course, well documented (see, for example, KPMG Foundation 2006; Hudson, Price et al. 2009). Early educational success supports engagement, school attendance and the development of literacy and numeracy ability. This encourages retention at school, which then facilitates successful transitions into higher, and further education. Educational level is connected, in turn, to a range of income, health and well being measures with students who complete secondary school and students who undertake further study consistently experiencing better quality of life.

It is in this challenging context that a collective attempt to imagine, describe, pursue, experiment, create and enjoy different ways of “doing school” has generated an approach to education known as Knowledge Producing Schools. The Knowledge Producing Schools (or KPS) agenda is characterized by a range of beliefs about and aspirations for schooling. The goal of this chapter is to outline the key principles which underpin the KPS project and to illustrate the ways in which these principles shape positive and, indeed, transformative teaching and learning initiatives. Importantly, these transformations do not take place in idealized, perfect settings filled with designer-learners and all the latest technologies. Rather they are the product of positive and creative relationships between diverse teachers and diverse kids in very typical publically funded schools in Australia. As such, they provide excellent examples of how the concept of “modest ambition” introduced earlier in the book translates into excellent pedagogical practices that are centred on the importance of relationships.

A starting point: towards knowledge producing schools

So what are Knowledge Producing Schools? Growing out of the writings of Australian scholar Chris Bigum, the KPS agenda offers one way of responding to both what has changed, and what has not changed, in the contemporary educational landscape. The core feature of KPS projects is a commitment to disrupting the traditional relationships that underpin so much of contemporary and past school practices. This includes relationships between schools and knowledge, between schools and teachers, between teachers and students and between students and their community. Historically schools (and students) have been positioned as the passive consumers of other people’s ‘expert knowledge’ and as only distantly connected to their community. This results in educational practices which are designed to help kids get good at ‘doing school’ (as judged by people within the system) rather than
helping them become confident at ‘doing life’ (as perceived by the wider community).

The starting point for the knowledge producing school, then, is the belief that we must reconceptualise the relationship between students, schools, communities and knowledge. This means seeing students, not only as the consumers of curriculum prepared by others, but also as able, confident, capable producers of knowledge: knowledge, moreover, that is valuable to, for and within communities that exist beyond or across school boundaries, see (see Bigum 2000; Bigum 2002; Bigum 2002; Rowan and Bigum 2010).

Within the KPS framework, teachers proceed from the belief that all students—regardless of skills, background or prior history—can and should be meaningfully involved in the production of knowledge. This is achieved through work on what KPS projects position loosely as authentic or ‘real world’ tasks relevant to the worlds inhabited by the students. This raises questions, of course, about what counts as a real world activity. Setting aside all our skepticism about the idea that there is ever any single reality that can be accessed by all people at the same time, we are referring, here, to activities that produce some kind of product—be it a discussion, a story, a plan, a project or a product—that can be externally validated and which thus forms a bridge between school and not-school. These authentic tasks and real world projects allow students to recognise and respond to the needs, desires and priorities of particular communities and, of course, to their own interests within those communities.

There is no size limit or minimum scope for these activities. They can be enormous and designed for audiences of thousands (such as videos prepared for an anti-drugs campaign), or they can be very local and designed to meet the real world needs of a handful of children (such as a fund raising event for a local child). Scope isn’t the issue: what is most important is that children are involved in an activity which they care about and which others care about. It is a connection that brings them into relationships with diverse people in diverse locations and offers them support and feedback that extends well beyond that on offer in the standard classroom environment.

The notion of connectedness (and the feedback it produces) is central to KPS projects. It is common for students in schools to work on projects that are seen only
by a teacher, and, occasionally by a caregiver or family member. These kinds of tasks generally have no currency beyond the school walls and in terms of feedback receive, at best, the kind of “well done” applause that parents have long been offering to the wobbly pottery pots and biographies of famous individuals that schools require children to produce. KPS projects, by contrast, endeavour to ensure that the product is something someone outside the authors of school curriculum will care about. The aims is to see that out of every period of education—be it a week, a term, a year—a product is produced that is in some way meaningful to others beyond the school-child-family triangle. This could be other children, members of a particular community group, or on-line audiences. The specific audience (or, again, its size) is not the issue. Rather the key point is that a KPS project will connect students to some kind of community which exists independent of schools: a community that operates beyond the school walls and which provides students with opportunities to receive both guidance or support during the course of a project (in conceptualisation, design and implementation phases) and feedback at the completion of the project.

There are obvious resemblances between KPS projects and those advocated by other educational thinkers. Fred Newman has argued for the value of “authentic tasks” and “authentic pedagogy” providing students with the opportunity to work on projects “that are worthwhile, significant, and meaningful, such as those undertaken by successful adults: scientists, musicians, business entrepreneurs, politicians, crafts people, attorneys, novelists, physicians, designers and so on” (Newmann, 1996, pp. 23–24). This work has had international impact and shaped the productive pedagogies movement that was popular in Australia during the early 2000s.

Of course, well before the work of Newman and his associates became popular Célestin Freinet outlined an approach to pedagogy, which was premised on similar principles. Freinet emphasised:

The pedagogy of work wherein students were encouraged to learn by making products and providing services. He emphasized the value of enquiry-based and cooperative learning; taking children’s interests and curiosity as the starting point for projects; the value of the “natural method” which involves authentic learning through real experiences and principles of democracy, as children learn to take responsibility for their work, and, indeed, for the community through processes of democratic government.
And of course, many progressive education projects throughout the world have sought to engage one or more of these agendas.

With the emphasis on real world tasks, community connections, authentic feedback and the production of knowledge, the KPS framework offers a new lens for conceptualising and reflecting upon transformative educational projects. In regards to our particular educational activity we aim to reflect consistently upon the following questions:

- Are students positioned as the producers or the consumers of knowledge?
- Are students able to produce products with a genuine purpose and value beyond school assessment regimes?
- Are students positioned as active or passive?
- Are students provided with a real world audience?
- Do all students and all forms of knowledge have a chance to be valued?
- Does this audience facilitate their connection to a broader community? Is this community involved in the actual learning process?
- Does the experience create positive relationships between diverse children and knowledge? Between diverse children and the community?

These questions provide valuable reflection points—self-evaluation tools almost—for those working on KPS agendas. However, within these broad parameters schools implement KPS projects in a multiplicity of ways depending upon their analysis of where students, teachers and the community are at: what their existing strengths and weaknesses; what they are interested in and motivated by; what are the hot topics and passions; and what kinds of community and other resources do we have access to?

Every KPS journey is different and students and teachers and the communities they work with are all always learning. Gone is the positioning of teacher as all knowing expert, and student as neophyte and apprentice. Gone is the notion of schools as places of expertise and ‘solutions’ and community as the source of critique, distraction or problems. Instead the KPS framework works to generate and sustain
new relationships between the key variables outlined above: schools, students, families, communities, knowledge … and possible futures.

The rest of this chapter tells the story of one group of teachers and a principal who have been working with the KPS framework since 2002. We outline three different KPS initiatives and seek to draw attention to the way particular teams enact KPS in different ways whilst staying focused on the long range goal: the creation of learning environments that are truly innovative in the ways they offer diverse children the chance to experience success as learners—and as citizens for the future. We use the term innovative here to signal, not simply something that looks different, or new, or technologically mediated but, rather, practices that seek to change long standing, entrenched social patterns. Rowan (2007) has written elsewhere:

> the label ‘innovative’ might now be most meaningful to educators if it was applied to those processes, products or interventions that have changed in some way the precise ‘things’ that have historically proven most resistant to sustained, sustainable change. To be ‘innovative’, in this sense, would require not only (nor even) some of the more traditional hallmarks of innovation—chronological ‘newness’, the addition of technology, or the creation of new market opportunities—but rather some fundamental transformation, interrogation, or interruption of long standing patterns of educational access and success. (pg. 128)

**A beginning**

Silver River State school is located in a remote part of North West Queensland in Australia: a ten hour drive from the nearest metropolitan centre and more than 15 hours away from the state capital. Back in 2002 the Principal of Silver River State School, Carmel, became interested in KPS projects after discussions with Chris Bigum.

She was particularly optimistic about the possibilities KPS seemed to provide regarding increased student engagement and began by looking out into her community for ‘real world’, authentic tasks that could form the basis of a trial for the KPS agenda. An opportunity soon emerged. The local State Emergency Service (a volunteer based organization who provide emergency support to the community in times of crisis such as fire, or flood, lost hikers and so on) wanted to know what the people in the community actually did or did not know about the role of the SES. They hoped that the school could help them collect this information. As a first move Carmel met with a SES representative and then spoke to interested teachers about the
ideas and task. Two teachers volunteered to take this on as a KPS pilot project and a meeting was set up between the SES representative, teachers and (importantly) a few students. The inclusion of the students is, in itself, an indication of an alternative approach to planning for these are the people who are most often excluded from planning stages of key educational agendas and positioned, as outlined above, as the passive beneficiaries of other people’s wisdom.

At this meeting the small group discussed the challenge and plotted ways forward. They explored possible steps to be taken, how progress would be communicated, and what a final product or outcome might be. The next step was for the lead group to then take this information and ideas back to the class. Working together the class brainstormed a series of steps to be taken. First they needed to research all about SES, before inviting an SES representative in to ask clarifying questions and gain ideas to formulate the community survey. Positioning or recognizing the SES as external experts meant that teachers and students we all positioned as learners. One student commented on the very positive nature of this joint learning: “Teachers had to ask questions too 'cause they didn’t know either.”

Indeed, right from the very beginning students were given the opportunity to become leaders in terms of the information they uncovered. This gave students early opportunities to experience success. One of the Year 5 students was able to show a range of very positive research and enquiry skills that really changed how staff and students had previously perceived him. This student enjoyed the idea of creating a real product but enjoyed even more the learning and interaction with community personnel. This student ultimately was proud to present the work of the class at a Principal’s Business Meeting and spent several hours preparing a very well polished talk without any of the traditional scaffolding provided by teachers.

This sense of ownership and level of engagement was widespread. Indeed, from the outset the teachers were impressed with the energy and motivation all students brought to the task of developing, collating and presenting survey data. One of the really significant features of this—and other KPS projects—is that skill sets are developed naturally rather than artificially. That is to say: as students identified the next phase of their project work, they identified the skills they would need, and the class evolved to provide those schools. For example, when the SES asked the students to email them and suggested that the final product could be done as a
PowerPoint presentation or something similar so that the data could be shown pictorially or graphically the teaching of email and PowerPoint was then planned and taught to students. In this way the introduction of particular skills was purposeful and meaningful.

When asked to reflect on the SES unit the students told their principal, Carmel, ‘we liked learning about the SES’, ‘it was good interviewing people’, ‘we did all the work ourselves’, ‘the teachers had to ask questions too’, ‘I think different to others about things’ and ‘We got to work with people (referring to other students) that we don’t normally work and that was good’ (notes from observation and reflection scripts).

Indeed, the student feedback was overwhelmingly positive. They loved working on a real task for the SES and were incredibly self motivated to undertake what could easily been seen as the tedious tasks of writing surveys, sending them out, chasing people up for them and then collating the data. The students said they enjoyed this unit far more than any other unit that year, which certainly surprised the teachers. Interestingly, the teachers involved said they thought students would have rated a previous ‘gold mining’ unit higher because of the hands-on fun of digging for gold in the classroom mock gold field. However the students overwhelming preferred the SES project. This raises an important point about the positive impact on student engagement of a real world, authentic product. Involving students in fun gold mining tasks creates the kind of simulation of a real world task that is common in schools. At the end of the day, however, there was no real audience and no authentic product from a day spent digging for pretend gold in a pretend environment. The SES program, by contrast, produced a tangible, validated and valued resource which students could recognize as making a genuine—rather than make believe—contribution to the community they were a part of.

The SES who was both impressed and surprised by the findings and the manner in which the on-going communication updates and final presentation were completed readily provided this validation. The local SES made use of the students’ data findings and presentation to seek additional funding from their state body. This funding was used to promote a local awareness-raising campaign and the students were very proud of their contribution to this outcome.
This brief story gives an indication of the potential for KPS projects to improve engagement and, thus, skill development across a group of students. Central to the project’s success was the teacher’s willingness to hand over considerable authority and expertise to the external experts and the students: who together became creators of new, valued knowledge.

This provides an indication of the potential of the KPS project. As mentioned at the start of this paper, however, one of the key agendas for KPS work is improving educational experiences, pathways and outcomes for diverse learners. This means being aware of and attending to the particular educational needs of students who may be at some risk of disengagement, alienation or failure without, of course, compromising the educational experiences offered to the student group as a whole.

The next two stories focus on projects that evolved to cater for the needs of particular cohorts of students.

Another stage: in the mines

This next KPS example illustrates the potential of KPS projects for connecting disengaged students, families and learning. It is based on the story of Jackson, a Year 4 student at Silver River who was not meeting year level benchmarks in any area. Teachers described him as often disruptive during lessons and attention seeking: a bit of a ‘class clown’. Jackson had also been suspended for fighting and showing aggressive, defiant behaviours. He was, nevertheless, liked by other boys in his class but neither he nor his peers saw him as particular good at ‘doing school’. He was described as looking sullen in class and seemed reluctant to engage in conversations about his work. Jackson’s parents, however, were keen for him to do well and they were always responsive to school requested interviews and involved at other more traditional events such as sports day. Jackson’s dad was a shift worker and it was often his mum who came to school if there were any ‘issues’ to deal with. Outside these formal, scheduled events, however, they had little opportunity to connect with the school.

When Jackson’s teacher noticed that he and his group of friends were interested in trucks and mining work, she decided to try to pursue this interest with them through the development of a unit focused on local resources. As she noted in her reflections on the project she saw the possible connection between real world interests and
classroom engagement...“I thought this might help getting my hard to motivate boys interested – they like trucks, machines – they see it as relevant because most of them say they want to work in the mines when they’re older”.

The activity developed in multiple ways. As part of a ‘free time’ activity within the unit, Jackson had started to build a small-scale replica of the underground mine. For many teachers this kind of work would be seen as an optional extra: a kind of creative add on to the ‘real work’ of learning about local resources. For the teacher, however, it was the kind of opening needed to improve the relationship between Jackson and learning: and to let him see himself as good at applying knowledge. Jackson began to talk to his family about his project and one morning after night shift Jackson’s Dad came into the school, at his son’s request, to visit the classroom and see his son’s construction. Rather than seeing his arrival as an unscheduled interruption, which is an all too common attitude in schools, which relegate parents very much to the background, the teacher actively welcomed his visit and observed that the talk about the replica was operating at a very technical level. Suggestions were flying back and forth between father and son about what was right and what needed to be added and so forth.

This opportunity created a bridge between Jackson’s in school and out of school worlds. It helped him see himself as competent in both domains and allowed his real world audience—his father: a mine expert—to give him feedback that was authentic and valued. This was a specific goal for the teacher who later reflected on the value of “…utilizing parents and community members as experts (especially Dads because the students look up to their Dads and if the Dads are helping them and showing interest in their schoolwork then so will they.)”

Following the work in this unit Jackson’s Dad became more involved in his son’s work at school and developed a good relationship with the teacher. This change had further flow on effects. Jackson was an enthusiastic leader, especially among other boys in the class, and this generated a great deal of spontaneous encouragement by other students designed to get their parents, particularly Dads, involved with the project.

This illustrates perfectly the idea of modest ambition. Jackson was a child who had learned to see himself as bad at schoolwork. As a result of the teacher’s willingness to pursue her children’s interests and encourage genuine partnerships between home
and school—partnerships where the parents were seen as expert contributors to a unit of work rather than simply the audience to whom students present—Jackson was able to make the move towards seeing himself as a good learner. Perhaps not surprisingly teachers soon saw a significant shift in Jackson’s attitude and mood. Teaching staff suddenly saw lots of smiles and he was also keen to share his work during the Principal’s class visits. One day he actually grabbed Carmel, the principal, by the arm and asked her to see his work! She noted: “How could I not go and spend the time to look and listen to his sharing. This is what it’s all about! Teachers making the connections between family, interests and learning.”

This connection was made possible because of the teacher’s belief in positive connections with the community. During this unit many of the Dad’s came on a regular basis to the class and at all sorts of different times that didn’t match nicely with the school day. Often before or after shifts and this often meant students were voluntarily working on their projects before and after school and at lunch times. This is a pattern of behaviour that teachers observe consistently during KPS projects: students’ sense of ownership, an awareness that people other than the teacher will care about the product and a consistent engagement, enthusiasm and commitment to the task. All of this, in turn, improves achievement.

There is a point to be made here about the willingness of the teacher to let go of certainty and to embrace the unknown that is always associated with KPS kinds of projects. The teacher could have, at any time, turned away from embracing a unit of work that messed up a carefully planned out timetable, disrupted scheduled lessons, and was, in essence, evaluated by folk other then school staff. But this didn’t happen. Rather, this teacher exemplified the KPS mindset of keeping the destination in mind, rather than obsessing over adherence to a pre-planned course of travel.

A similar flexibility is seen in another KPS story.

_Me, myself, I_

This memorable KPS unit involved a focus on fostering opportunities for young Indigenous Writers to produce narratives with a theme ‘Me, Myself, I’ for a writing competition. The teacher negotiated a plan with Indigenous elders and families through our local Indigenous Education Worker. Here, again, the willingness of the teacher to move away from certainty needs to be acknowledged. During an initial
meeting between the Indigenous Education Worker (IEW) and ‘Aunty M’, the Indigenous students and families who were appropriate to be involved were identified and the project teacher was advised which students could be invited into a ‘storytelling day’. The teacher had envisaged the elders coming to school, telling some stories and getting the kids started on their writing. But as it happened the elders would not hear of the story telling being done at school and, instead, a visit to a significant local story telling place was organised. The teacher recalls: ‘Aunty M thought we should go out to Sybella Creek, they came up with who would tell the stories … Aunty M wants us to sit under a Gidgee tree and boil a billy … Go to a place, see a waterhole that never dries up and she says this place is the life blood of the people that were living there.’

At this early stage the teacher expressed a concern that he was ‘losing control’ over the work. Despite his unease, the teacher did not change the elder’s plan or reject it or try to impose limitations or structures around it, but rather made adjustments to his own plan and ideas to incorporate the ‘bush day’ into the project.

The organisation was predominately done by the elders but the teacher did some of the technical and the logistical aspects, such as permission slips and risk assessments. The teacher told me ‘Aunty M worked out the kids and when I rang the families they also asked who was going and would be telling the stories before they gave approval ‘. His comment highlighted an acknowledgement that the ‘elder’s knowledge’ about protocol for family groups for story telling and visits to certain ‘places’ gave him a valuable insight into what parents thought was important in this situation. Permissions were granted.

The day was a mix of oral story telling about childhood experiences, storytelling about rock paintings, story telling about the children’s families and great experiences while walking amongst the rocks of the creek bed and eating bush tucker prepared by the elders. Through this experience the multiple worlds inhabited by the students were connected: they acquired new knowledge, saw their cultural background validated, and communicated their new knowledge—via authentic conversations and creative stories—back to the authentic audience of elders and, as well, the teachers who also became learners. One brief exchanged indicates the growing confidence of the children:
T1: What would you do now like with a sheep or whatever?

E1: See that Gidgee there, that Gidgee leaf, chuck that leaf on the coal there and that kangaroo, bit a kangaroo meat. That’s the flavour. That’s the Gidgee leaf.

T1: So put the green leaf on top of the coal and then...

E1: Yeah but not that green pod there, that’s poison.

E4: You’ll smell it?

T1: Oh yeah yeah. I can smell it.

E2: Yeah it kill a bullock that one.

T1: Oh.

Back at school the students had a great foundation and shared experience to draw on for their narratives. The first drafts were done quickly. From this the teacher then taught some very focused elements that would improve the student writing, such as grammatical features and skills of expanding description through nominal groups. These potentially ‘boring’ lessons were made meaningful through the rich experience where the students had really connected with their land, their elders and their stories. Ultimately the students’ work was not ready for the competition that had provided the impetus for the project, but this was far less significant than the fact that the students had an authentic audience from their own community. They got to enjoy sharing them with the elders who returned to listen to the completed stories. This opened up further points of connection. The teacher reflected that when he talked to the families and elders about the storytelling, one Grandfather said ‘That’s good because I can show ‘em the rockpaintings. They tell stories too.’

Topics selected by children were significant to them for different reasons including the fact that the stories were relevant to their family and community.

One student returned from the adventure ready to tell the story about how he got his nickname “The Wagtail” from his Grandfather.

**Willie Wagtail**

*Back when I was a little child, my Grandad was cooking up eggs when my grandad woke me up and said, “We have to go to the last trough and fix it or the trough will keep leaking and it will break.” When the trough breaks Mavis will be angry at me because this is her land.*
So Grandad and I were trying to fix it. As we were trying to fix it all the cows were watching us fixing it because I could see them real thirsty. All the pigs, the horses and the cows were lying down watching us trying to fix the trough. It took us about an hour but we still had fixed it.

Then I told my Grandad that I was going to get a drink of water from the clean big tank we had. After my hand was full of water I told my Grandad that I was finished getting a drink. So Grandad and I were heading back home to Rocky Glen. While we were heading there, we saw the Willie wagtail was flying next to us the whole way back.

That next day when Grandad was packing up to go, we saw the Willie wagtail again. So my Grandad went up to give the Willie wagtail a piece of meat that we had cooked last night. Then we cruised back to town and we saw the cows and pigs and horses drinking out of the trough that we first fixed while on the way to Rocky Glen. We then moved to town and we saw him again just before we hit the road. I said “Grandad, I reckon that little Willie Wagtail is smart.” And now every time we go out to the Rocky Glen we always see a little bird next to us. And that’s where we met the Wagtail.

The end.

Another student wrote about a family funeral she attended, which was inspired by memories of her family and family connections in both Queensland and the Northern Territory. After many years away in a coastal location, her story was about re-connecting and developing a sense of family, a sense of identity.

Another student wrote a story about a boy who hunted goanna and was taken by a man who’s ‘skin was different to his; he thought it was a ghost’. This story was inspired by the boy’s interest in hunting, and ideas and tales about his Grandparents and from his Aunty. This student had spent a number of years living in a coastal location and only recently returned to this area. He told me ‘Yeah (this way of learning is) a lot different because back in (named another place) we never got a chance to go out bush. Yeah I really enjoyed it. … I’d actually like to go and hunt something and then we could cook something and sit around and tell stories.’

There are literally dozens of stories of KPS initiatives that have developed throughout the last decade. Throughout these stories the participants and projects can vary dramatically but the recurring themes are:

- Student appreciation of tasks that are based upon their interests
- The value of a real world audience
• The connection between a task that students regard as authentic and student engagement

• The challenge—to teachers—of letting go of total control and allowing other people to take up the role of expert

• A genuine sense of momentum

• The potential for robust KPS initiatives to provide multiple ways for students to contribute and thus multiple ways for diverse learners to achieve success

Teachers working within KPS contexts regularly make reference to the children, who had been disengaged, alienated or struggling learners who found new levels of commitment when given the opportunity to be good at something they were passionate about. Sufficiently robust tasks also provide spaces for kids who may struggle with some aspects of schooling to see their particular talents validated and valued. For example, when one teacher was asked if there were any particular students who had surprised her during another KPS initiative based on developing a community art competition designed to raise funds for charity, she made the following comments:

*T: I think the children have a respect for John, John is always needing learning support in the classroom.*

*R: Are you saying a newfound respect?*

*T: There’s an acknowledgement of the fact that John knows some things and has the skills that the others don’t... its great for him.*

*R: What do you think those skills are?*

*T: Just on an artistic level, he’s got a great sense of composition and colour knowledge. And just the process of doing all those fine cuts and gluing them down, and that with me just saying one thing and then John goes and does it all and directs all the others (students). Communicatively it’s helped him because he’s had to be clear on what he’s saying and he has this real product he needs to get to, and he’s got to get it done. And that’s really improved since term 1 or 2 if you asked him to repeat himself he would just go ‘ah’ and get someone else to say it for him. So he’s been more expressive.*

John is not an isolated case. Another teacher told Carmel that she had noticed a change in another student’s attitude to writing. She told Carmel that this student Peter had become more positive; he was doing project and other class work without
teacher prompting and was writing at length, as opposed to previously where the teacher felt compelled to prompt this student for ‘each paragraph’ at writing time.

When Carmel asked Peter about whether his interest in writing had changed during this project and he said ‘Yeah I’ve got something I can write about.’ On other visits to the class, the teacher told Carmel that Peter had started to initiate work for the project without teacher prompting and suggestion. He started getting on the computer each day to review project work, started going to the other classes to see how they were progressing with their artwork and began helping with his own class mosaic, which was not specifically his job. When Carmel visited the class to take a photo of the class mosaic this student was also the one that wanted his photo taken with the mosaic. Teaching staff noticed that Peter was smiling when he was talking to me about the class project, which was something I had not seen during regular class work previously.

Using their own initiative the two students, John and Peter, began to visit Carmel in her Principal’s office to update her on the project. On one of these visits they were asked what they had learned from the project. The following is an extract of the talk.

John (J): Now I help others and I’m confident.

R: What has helped you feel more confident?

Peter (P): Most of us haven’t done this sort of work before.

R: How is it different to other?

J: Communicating with the public.

P: Not so boring, hopping on the computer everyday, helping with the mosaic.

R: In.

P: You get to help other classes too, it’s not just working in your own class.

J: Raising money for the charity was good.

R: I see you are very interested.

P: It’s a lot easier and fun to work with other people.

John went on to say:

J: I used to do nothing and now I do work in the class and help other people. I never did that before and now I do.
R: You feel more confident?

J: Yes I do

There is another theme that needs to be acknowledged: the courage and risk taking of the teachers involved. In a world which increasingly demands evidence that curriculum has been followed and assessment tasks completed, investing in a process which is inherently organic—as a result of the trust it places in students and the community—is an act of courage. At any stage of the project the teacher could have clamped down on student initiative or insisted on sticking to some pre-determined script. The teacher involved in the SES project discussed at the beginning offered the following kinds of reflections:

Was thinking over the KPS work in the SES project and remembered that we had the initial idea of this community project and ideas about how it would go but when we had the initial meeting with the SES it totally changed the unit we were going to do, the real issue took over. The kids really took ownership and got a lot of personal real learning out of it. The thing I remember was the motivation, the kids were asking ‘Will we?’ ‘Can we?’ and they were coming up with suggestions. They decided to present the PowerPoint to the SES at the end of the project. In the KPS work I saw value for student because it was so engaging, it was theirs, they found solutions and they discussed and held conversations about learning.

This teacher’s willingness to set aside her own preconceptions about how the children should achieve the goal resulted in increased student engagement. Similarly, the teacher working with the indigenous story telling project had to put aside his concerns about what was going to happen next, and trust in the skills and knowledge of the community that was involved. This kind of school/community partnership is different to those that are typically found. The trust and respect that develops is something that you can’t predetermine or script. The outcomes too are always hugely significant for all participants.

Through these projects students have developed the kinds of core competencies that high stakes testing regimes are obsessed with such as:

- Strong literacy and numeracy skills
- Excellent multi-literacy skills including high level capacities in the ‘new basics’ of ICT
More importantly, however, they developed:

- An understanding of what a changed and changing social and economic environment means for their present and their future (career, relationships, family and health)
- Skills in working cooperatively with others different to themselves
- A strong sense of self, and a positive attitude towards learning and life long/life wide learning

*Afterword*

Our goal in recounting these stories is not to suggest that there is some kind of magic formula that, if followed closely, will guarantee achievement of KPS goals. Nor is it to suggest that there is one single pathway that can be followed that will suit every teacher or every child or every community.

Indeed, the whole basis of the KPS framework is that the world is complex and characterised by contradiction, uncertainty and change. In this context, formulas aren’t really that helpful. Rather, what is most valuable is a clear sense of direction and a strong sense of purpose. This means having a destination in mind and a willingness to travel in whatever way best suits the prevailing conditions rather than insisting on sticking to a pre-determined, non-negotiable itinerary, which lays out in advance how, and in what ways, everyone should travel regardless of who they are, what they are interested in and where they have been before.

The teachers discussed in the examples above (and, indeed, the students and their community) share a commitment to a particular type of educational journey. It is a journey through which each child—regardless of gender, cultural background, socio-economic status, geographical location, family form, sexuality or prior experiences—is ultimately able to see themselves in a positive relationship with knowledge: knowledge they helped to produce and knowledge that is valued and validated by an authentic audience.

The teachers discussed in this chapter achieve extraordinary things but they don’t have revolutionary agendas and unlimited resources. They are, rather, excellent examples of the kind of educated hope outlined at the start of the book: they are aware of key problems faced by many of their students (including declining
engagement, problematic family relationships with schooling) and are working to improve the relationships between the children, their caregivers, their community and the pursuit of knowledge. Because of this close focus on responding to where kids are at (rather than where school curriculum often assumes them to be) and a parallel commitment to getting kids re-engaged with learning (rather than curriculum) the specific ways in which particular teachers or schools take up the KPS agenda varies from time to time and context to context. Underpinning all the work, however, is that belief that schools can—must—move away from representing children as deficient, lacking or unskilled towards seeing them as genuine contributors to the knowledge that sustains our society. These stories show what real kids, with complex histories, can achieve when provided with environments that offer genuine challenges, professional support, and opportunities to take risks and reap the rewards.

To conclude

Knowledge producing schools take seriously the business of preparing children—learners, people—for a world, which is both significantly changed, and stubbornly unchanged. The KPS agenda challenges us to respond to new times without reproducing old patterns of educational success and failure. It is a challenged based upon a commitment to excellence for everyone. This challenge is well captured by Henry Giroux (2009) who argues:

If formal education is to remain a site of critical thinking, collective work, and social struggle, public intellectuals and progressive social forces need to expand its meaning and purpose. That is, they need to define public and higher education as a resource vital to the moral life of the nation, open to working [with] people and communities whose resources, knowledge, and skills have often been viewed as marginal. The goal here is to redefine such knowledge and skills to more broadly reconstruct a tradition that links critical thought to collective action, human agency to social responsibility, and knowledge and power to a profound impatience with a status quo founded upon deep inequalities and injustices.

Giroux here makes clear the connection between schools, teachers, knowledge production and equitable, socially just futures. The stories explored in this chapter make it clear that teachers, students and the communities they are part of can all play a valued and valuable role in this process. While the projects discussed above can be challenging, risky and often quite scary the possibilities they provide for students to
stop seeing themselves as rats within an increasingly maze like schooling system—a maze which rewards them when they push the right buttons or ring the right bell—towards autonomous, valued individuals who have the ability and the right to make a contribution towards understandings of, and activities within, their wider community.

The question, for our future, is perhaps … will we let them.

References


Part 3: The induction presentation

In a school where we have a large number of new and beginning teachers each year, it is important for me to continue to be adaptable to new ideas, provide comprehensive induction programs and to support teachers to make a smooth transition to our school community. Teachers generally transfer to our area and remain for 3 to 5 years before relocating to a coastal school. In that time I believe support is needed to build learning relationships across the school community and expand their expertise and knowledge as teachers.

The following PowerPoint presentation has been used numerous times over the years but is always in slightly different forms, as I am continually re-engineering the slides to include ‘new’ or current KPS projects undertaken or new ideas or priorities to consider. The presentation has been presented at two conferences (McGrath, 2008; McGrath, 2004) and has been used many times as part of our annual staff induction program.

![A Knowledge Producing School](image)

Slide 1. A Knowledge Producing School

When introducing ‘Knowledge Producing Schools’ agenda to staff I discuss the origins of the name and its commonly used acronym ‘KPS’. I briefly discuss the notion that a knowledge producing school is a place where students, teachers and community are actively engaged in negotiated learning. I discuss the idea that where the majority of our curriculum materials are externally developed for our use, this innovative KPS work is more heavily focused on working together to *produce* valued local knowledge.
Slide 2. Themes

When introducing the KPS agenda I talk about the key themes that underpin its development: student engagement, involvement of students, teachers and community as equal contributing partners, and use of real tasks that offer an audience or purpose beyond the classroom or school. The emphasis in my talk here is to engage teachers in thinking about what they know about their students, their community and in what ways can they engage in real learning with students and community.

Slide 3. Understanding The Issues

In this slide I ensure that I position the KPS work as an integral part of good teaching. At this point I talk about the important priorities for our school, region or district, state and nation. I have changed this slide over time to adapt and move with the changes in systemic priorities. In recent times ‘closing the gap’ between Indigenous and Non-indigenous students in areas of attendance, retention and achievement in Literacy and Numeracy have become dominant. With 25% Indigenous students at our school it is most important that teachers understand the social and cultural issues and that the KPS focus on engagement and community
involvement is aligned with this. KPS is also focused on promoting real learning opportunities for students so the emphasis is on the use of technologies (ICT) for authentic and purpose-driven reasons, rather than ICT for ICT-sake. The other issue discussed here is the non-tangible qualities that the KPS work is known for, such as building higher order thinking, team work, cooperation and so on. When explaining this aspect I also relate to the term ‘life long learner skills’ as this is well-known education jargon that teachers are familiar with.

Slide 4. KPS Characteristics

When talking about the characteristics of this work I like to tell a story from some of the work that has occurred. In outlining some examples of different and varying KPS type projects, I also emphasise that there is no one-size fits all approach and that each project is as varied as the next but that similar themes are addressed in them. The major types of projects are categorised under (1) product or performance, (2) real life problem or (3) community development project. The key themes that are most important to the real learning opportunities are, however, the willingness of teachers to involve or invite their students and also their community to be equal partners in developing and producing knowledge within the projects. Community Involvement is emphasised as important resource or recognised as the experts in the field and as such play a key role in creating a plan forward.
Slide 5. Establishing Community Interest And Networks

Slide 6. SES Pilot Study

In these two slides I discuss the origins of working with our community and some of the key contacts we established. I also emphasise the wealth of knowledge that our students and their parents have about the local community. These people are a great starting point for any work. The SES Pilot Study is a story that emphasises the importance of real tasks students can undertake and the seriousness with which they engage in learning and knowledge production when the purpose is meaningful and authentic.
When I present the range of projects that have been undertaken I like to choose a couple of different stories that emphasis how different each is. In this way I also show that some are more responsive to ‘school’ issues and some are more ‘out there’ in the community. For example, making Tie Dye and selling it to students is a school based learning, and creating and exhibiting ‘Art’ for the school at the local tourist centre is more involved with the community. Within each of the stories I present I also draw out some of the key findings from each and make links back to the research theory, as presented in the dissertation, including: (1) aspects of students re-engaging with learning, with other students, with their teachers or within the school generally; (2) teachers showing the courage to allow or invite others, such as students and community experts, into the planning and development of the learning; and (3) all students are valued and seen as genuine contributors to the knowledge production and learning experience.
Slide 8. Continuing With KPS

Slide 9. Research Links

These two slides enable me to set the direction for future work in KPS and highlight some of the research already undertaken by me and more broadly throughout other education sites. This is a chance to re-cap on some of the key aspect of the work and highlight the school’s links with other KPS schools in Queensland and with the Deakin University through this doctoral research.