Tara Brabazon *Editor*

Play: A Theory of Learning and Change

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Chapter 1
Introduction: Play Up? Play Around?

Tara Brabazon

Where does this exuberance come from? And where does it go?

(Stuart Brown [1], p. 78)

Abstract Play is locked into an array of binary oppositions and clichés. This introduction opens up the space between work and play and releases play from early childhood education. By freeing play from clichés and childhood, a new mode of learning emerges.

Teacher education is a serious business. Becoming a teacher is a dream for many and a privilege for a few. Educating the next generation is an occupation of profound significance. It is also staunchly regulated by nations, provinces, states and professional organisations. Teachers must be locally aware but internationally savvy, theoretically attuned and adept in their applications. They also work in a profession where 'everyone' is seemingly an expert, because 'everyone' went to school.

Such assumptions about 'experience,' if not expertise, become more intense when discussing play as a verb, noun, theory, trope and behaviours. Adult life is strongly circumscribed within tight protocols and patterns of normality. Adulthood is 'invented,' as much as youth and childhood.[1] Social, cultural and sexual differences are patrolled by civil and criminal law (and lawyers), police, journalists and media organisations and employers. Late night drinking sessions often attach a preposition to the verb 'play,' like 'up' or 'around.' Social media such as Twitter are quick to judge, label and share, errors in fashion, body shape or relationships.

The ideological changes that shadow play through our lives are remarkable. Children play. This is a positive, optimistic and joyous phrase that embraces a series of activities. If something is easy and pleasant, it is child's play. Through teenage years, life and learning become serious. As we age, the word 'playing' attracts other

[1] Cunningham [2].

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words like playing up or playing round. A player (often pronounced 'plaay-aa')[2] signifies a man with an anathema to serious commitments in relationships. Why does play transform into an aberrance or deviation to normal social relationships? Why is 'play' a happy and benevolent verb in childhood, yet a subjective and labelled behaviour in adulthood? The answers to both these questions are to be found in this book. Play is a theory of learning; an ideology that circumscribes behaviour and identity, and a way of thinking.

This book is special for two reasons. Firstly, scholars from the School of Teacher Education – specialists from early childhood through to further and higher education – research 'play' in a way that arches beyond the specificity of age groups or predictive, normative patterns. Secondly, this School is located over two countries and three locations. Therefore, insular, inward and parochial educational standards and limitations in one city, province, state or nation are critiqued and challenged. Attention to the specificity of indigenous students and staff demonstrate the transnational commitments of this collection.

Stuart Brown states that, "play provides freedom from time."[3] This disconnection from the clock is also a dislocation from a map. Space and time merge, blur and transform. This book plays with the categories used to regulate and restrict the curriculum and theories of learning mandated and magnified by accreditation authorities. It also opens out this discussion to adult education, creating more complex relationships between work and place, labour and recreation. Gaming and gamification are important here, but so are the narratives and stories that we tell to make sense of our lives.

Ageing is the capacity to manage disappointment, recognising that dreams, hopes and aspirations are tempered by work, mortgages, debt and death. There can never be a happy ending. Even the greatest of marriages are scarred by the death of one partner before the other. Therefore play, a re-creation of self in and for new contexts and conditions, is the work of imagination. Play is an act of mediation and translation. It carries hope and alternatives into repressive environments. It is not locked into the binary oppositions of work and play, but instead flits between analogue and digital, adult and child, and creates scenarios for different and defiant ways of learning and living.

Media – new and old, analogue and digital – are important here, translating experiences and aspirations into new times and spaces. Social media in particular are trivial, light and transitory. They log the transitions of life,[4] one status update and selfie at a time. But play also signals involvement. 'Let's play' is a phrase to commence a diversity of games. Famously 'Let's play darts' welcomes audience involvement at the Occy.[5] Yet such a use also presents challenges. By 2014, William Tierney, Zoe Corwin, Tracy Fullerton and Gisele Ragusa reified play into games and social

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[2] An example of this use is Taylor Swift's "Shake it off," YouTube, 2014, https://www.youtube.com/watch?v=nfWlot6h_JM.

[3] Brown [1], p. 17.

[4] Mazzoni and Iannone [3].

[5] "Let's play darts," *YouTube*, https://www.youtube.com/watch?v=teI5bep-Otw.

media.[6] Much of this work is inspired by the great scholar of gamification, James Paul Gee. He sees games as a way to return passion and motivation to education, embodying knowledge.[7]

Gee is right, but there is value is recognising the wider context of play beyond games and indeed digitization. Play is mediated – through games, toys, playground equipment, curriculum, assessment and those around us. Miguel Sicart offers an evocative definition that we will apply through this book: "play is a form of understanding what surrounds us and who we are, and a way of engaging with others."[8] Play is a decoder, translating our understandings of power, race, gender, age and cultural value. The tragedy as we age is that we lose the forgiveness and redundancy of play. Paid employment becomes the marker of importance and personal value. That is why the vocationalism of higher education is such a tragedy. University, through to the 1970s oil crisis, was still a place where the elite and elitist few could experiment, drink too much, fall over, and claw their way back to class the next day (or not). Now that university education has been associated with one task – providing a job (seemingly minutes) after graduation,[9] the play, challenge, debate, confusion, stroppiness and passion has gone, to be replaced with learning outcomes, assessment rubrics, remarks and academic misconduct. Risk is managed. Complaints are common.

This book is different and defiant. It values the people and practices that operate outside of normative parameters. The disruptive, chaotic and carnivalesque are celebrated. Play becomes a stance of difference, an opportunity to learn and claim a space, to dawdle and de-routinize daily life. This book has three parts: Setting the field of play, Playing with bodies (of knowledge) and Playing with pedagogies. The first section provides the definitional foundation for new modalities of play, from early childhood through to higher education. The second component welcomes the radical and defiant, those who do not play well with others. With attention to postcolonialism in particular, binarial knowing is dislodged. The final component welcomes the mediations of play through pedagogies. Sensory experiences are tethered to intellectual expertise. The alignment between theory and application is probed, with careful alignments between analogue and digital platforms and experiences.

The School of Teacher Education welcomes you to our classrooms, our online portals, our research, and reveals how that research becomes mobile through learning. Our goal is to welcome movement of ideas, bodies, knowledge and ideas. We play up to create new modes of learning.

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[6] Tierney et al. [4].

[7] J. Paul Gee, "Games, passion, and 'higher' education," from Tierney et al. [4].

[8] Sicart [5].

[9] This problem and transformation of universities was best captured by E. P. Thompson's essay "The Business University," from *Writing by Candlelight* [6].

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Part I
Setting the Field of Play

Chapter 2
Play in Early Childhood Education: An Historical Perspective

Sandie Wong and Helen Logan

Abstract Play is currently under threat and challenge in early childhood education. This chapter provides the history of play, demonstrating its role and legacy in learning cultures beyond the current imperatives for standards and standardization.

Play has been at the heart of early childhood education for several centuries.[1] Today, play-based curriculum is under threat. Now, more than ever, we need advocates who understand play's potential for supporting both societal aims and children's learning and development, who understand play's place in the early years' curriculum and who are able to promote children's right to play. An understanding of the complex, controversial and contentious ways play has been viewed through history can contribute to these understandings.

Play has been at the heart of early childhood education since its inception. In New South Wales in Australia, for instance, similar to other contexts around the world, play-based early childhood education settings were established at the turn of the twentieth century because progressive thinkers were so dissatisfied with the curriculum in schools.[2] At that time, the method of instruction was largely based on rote learning of dislocated facts through the monitorial system. This approach was deemed by contemporary progressive thinkers to be ineffective for all children but particularly inappropriate for very young children.[3] Indeed, Maybanke Anderson, one of Australia's strongest advocates of Fröebelian kindergarten methods, which we discuss later in the chapter, lamented that in schools 'Boys and girls … sat … like wooden tubs, waiting for knowledge to be poured into them from other larger tubs.'[4] Anderson and others established the Kindergarten Union of New South Wales to advocate kindergarten methods and established Free Kindergartens as

[1] Sluss [1].

[2] Press and Wong [2].

[3] Campbell and Proctor [3].

[4] Anderson [4], p. 1.

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models of play-based pedagogy.[5] These kindergartens are the antecedents of today's early childhood education settings.

Today, play-based early childhood curriculum is under threat. There is downward pressure from primary school curriculum into early years' settings often referred to as 'schoolification' of early childhood.[6] Discourses of 'school-readiness' – based on narrowly defined concepts that privilege literacy and numeracy, dangerously shift the focus from holistic, play-based early childhood pedagogy, to more academically driven teaching.[7] Bodrova argues that there is "constant pressure to start teaching academic skills at a progressively younger age at the expense of traditional early childhood activities."[8] This pressure comes despite the fact that there is little evidence that academically-oriented early childhood programs are the most beneficial for young children – and indeed some evidence to the contrary.[9]

Compounding the schoolification of early years' settings is the increasing tendency to test children's readiness for school. These tests can be useful diagnostics that assist teachers to plan individualised learning. However, they can also potentially be misused to make judgments about the quality of the early years' services that children attended. There is a danger, especially given the competitive, commercial nature of early years' services, that in some instances, children will be 'taught for the test.' Educators may give primacy to activities that they consider prepare children to do well in narrowly defined school-readiness tests, rather than provide holistic, play-based learning opportunities.

The different emphasis on play in early childhood settings and primary schools is abundantly evident in curricula documents.[10] For example, the Early Years Learning Framework,[11] Australia's national early childhood curriculum, identifies play and play-based learning as a key component that constitutes a central role in supporting children's learning and development. But it appears there are fewer places for play in primary school curricula. In the Australian Curriculum, Foundation to Year 10,[12] play is mentioned in the Health and Physical Education curriculum in relation to outside activities and natural settings for the Foundation Year. Play is rarely mentioned in the English, Arts and Digital Technologies curriculum documents and referred to variously as word and language play (English curricu-

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[5] Wong [5].

[6] Halpern [6]. Frances Press, *What about the kids? Policy directions for improving the experiences of infants and young children in a changing world,* report prepared for Commission for Children and Young People (New South Wales), Commission for Children and Young People (Queensland), and National Investment for the Early Years, 2006.

[7] Lillard [7].

[8] Bodrova [8].

[9] Bodrova [8], p. 357.

[10] Halpern [6].

[11] Australian Government Department of Education Employment and Workplace Relations [DEECD] [9].

[12] Australian Curriculum Assessment and Reporting Authority [ACARA], 2010. http://www.australiancurriculum.edu.au/.

lum), dramatic and role-play (the Arts curriculum) and guided play (Digital Technologies curriculum). To a lesser extent, play is mentioned in relation to the creation and construction of displays in the Mathematics curriculum and briefly in relation to role-play in the Humanities and Social Sciences curriculum. Indeed, references to play for primary school children in the Australian Curriculum are reflected minimally and unevenly across and within subject areas.

In addition, the contemporary early years' curriculum is becoming increasingly crowded. Many early years' services offer 'enhanced programs' where children receive planned activities such as computer and language lessons, gymnastics and dance classes.[13] Adding to children's already highly scheduled day in early years settings, many early childhood services are increasingly being used as sites for 'treatment' such as speech therapy and occupational therapy, where play is used as a 'tool' for skills development.[14] Whilst these developments may not necessarily be detrimental, children's time for engaging in free, unhindered, self-initiated, creative play is increasingly limited.

Added to these concerns is a loss of early childhood specialisation. Just at a time when high quality early childhood is being recognised as being valuable for ameliorating disadvantage and supporting families – the early childhood specialisation is being eroded. Many teacher preparation courses now aim to prepare teachers for working with children from birth to 12 years. Within these contexts, holistically-focused early years' subjects such as 'play', which may be viewed as inconsequential by teacher educators who have a primary education, curricula focus, are in danger of being marginalised, if not squeezed out completely, by curriculum oriented subjects such as literacy, mathematics and science.

At the same time as these concerns in early childhood education, there is a moral panic in the community about the 'loss' of children's play.[15] There seems to be particular concern with a perceived loss of outdoor play. Opportunities for outdoor play have been diminished by the inaccessibility of urban landscapes. Playgrounds are made safe to the point of being boring, uninteresting and with little challenge. Media stories report local councils removing playground equipment, either due to the cost of up-keep or because of fear of litigation should a child be injured.[16] Further, parents are often reluctant to allow their children to play outside unattended for fear, perhaps exacerbated by media reports, of them being abducted and/or abused.

Instead of 'free-play' children are 'hurried' from one organised activity to another in the perhaps misguided belief that their child may be disadvantaged if

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[13] For instance, please refer to "Foreign Language Immersion," http://www.careforkids.com.au/childcarenews/july09/story2.html.

[14] Wong and Sumsion [10].

[15] Elkind [11].

[16] See for instance: "Warringah Council to remove cherished slide from Wentworth Reserve, Belrose." *The Manly Daily,* March 25, 2014. http://www.dailytelegraph.com.au/newslocal/northern-beaches/warringah-council-to-remove-cherished-slide-from-wentworth-reserve-belrose/story-fngr8hax-1226864569227 (accessed 25March, 2014).

they are not offered all available opportunities to excel in an activity from the earliest possible age.[17] Moreover, children's increased use of technology, resulting in them engaging in more sedentary and less active play in front of screens, has led to rising fears of children's loss of imagination, loss of social skills, failure to develop empathy, increased anxiety, and physical ill-health.[18] These factors, in turn, have social and economic ramifications. For instance, increased obesity amongst children will contribute to the costly 'obesity-epidemic' evident in first world nations and a loss of individuals with creative skills will have a negative effect on innovation. Whether these fears are justified is open to debate. Fears about the 'loss' of play in children's lives is connected to suggestions that new characteristics of play are emerging in contemporary times. These notions suggest moving beyond traditional characteristics of play to include 'playful explorations'[19] that broaden understandings of play.[20] Indeed, a case could be made that children's increased engagement with digital technologies has seen new forms of play emerge and become embedded in children's lives rather than lost from them.[21]

Despite fears about the potential loss of play evident in society today, play is not universally valued. It is viewed by some as frivolous – what we do when we are not doing 'real' work. Common expressions heard in the community are "it's as easy as child's play" or "they're only playing." Such statements belie the complexity of play and its importance to children's learning and society more generally. Further, the very nature of play as an inevitably messy, noisy and boisterous activity, is disturbing to some who can view children playing, especially adolescents, with suspicion.[22] Moreover, in *Global Consultations on Children's Right to Play,* the International Play Association (IPA) found a "lack of awareness by most adults of its [play's] importance to the growth, development and well-being of children."[23] In the face of these challenges, strong advocacy for children's right to play is required, an advocacy based on understandings of play's place in the world in general and its place in early years' curriculum in particular. History can contribute to these understandings.

2.1 Why Bother with the History of Play?

What we know about play today comes from the past. Understandings about the way play has been viewed throughout history, provides a foundation for understanding contemporary meanings and concerns about play. Thinking historically helps us

[17] Elkind [11].

[18] Witherspoon and Manning [12].

[19] Hughes [13].

[20] Yelland [14].

[21] Zevenbergen and Logan [15].

[22] Brown and Patte [16].

[23] International Play Association [17].

become aware of the ambiguities, complexities and tensions associated with play that have existed for thousands of years. These understandings can then be used to think productively and vigorously. By recognising the historical antecedents of ideas about play, we are in a better place to articulate our own beliefs and to argue why certain ways of thinking about play are preferable to others.

Histories of children's play tend to be of two types: periodical, focusing on great ages, such as the ancients or the romantics, or have been biographical, focusing on scholars such as Plato, Locke, Pestalozzi and others.[24] The problem with these approaches is that they tend to lead to totalising claims. That is, they tend to suggest that at any one time in history, there was one dominant view about play.[25] In fact, views about play are both messy and contradictory. In particular, ideas about play are influenced by factors such as gender, class and ethnicity. In many cultures throughout history, toys, playthings and games, have been gendered – with girls' play tending to be restricted to domestic focused activities ('baby' care and cooking), and boys' play tending to be more physically and construction oriented.[26] Likewise, class has a profound effect on play. During the nineteenth century industrial revolution, children from wealthy British families were given time to play and provided with specially-produced toys, whilst poor children, who spent many hours working in mines, factories and other occupations had very little opportunity or resources for play.[27] Such factors continue to influence children's opportunities for play. Unfortunately, in the highly commercialised world of toy manufacturing – access to the most prestigious toys is limited to those from high-income families. This is not to say that children from poorer families are necessarily deprived – but rather that their experiences differ from children living in wealthy families.

In our discussion of the history of play, we take a different approach. Canvassing multiple texts on the history of play and early childhood more generally, we identified several recurring themes related to play across time that remain dominant in the contemporary meaning system. These themes activate the problem of defining play: play as a natural condition of childhood, play as beneficial for society, play as beneficial for individuals, play as curriculum. A final theme – play as a child's right – has become dominant more recently, and we strongly advocate this concept as a powerful argument. We do not claim to provide a comprehensive historical account of children's play, indeed such an approach would not be possible in the context of one short chapter. We also recognise that the history to which we refer is Eurocentric, based on publications written in English that tend to focus on European history. Our aim in this historical discussion is to highlight the complex and controversial ways play has been viewed across time in the Western context.

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[24] See for instance: Braun and Edwards [18], Frost et al. [19], Wolfe [20].

[25] Cohen provides an exception to these processes, Cohen [21].

[26] Van Hoorn et al. [22].

[27] Lascarides and Hinitz [23].

2.2 The 'Problem' of Defining Play

One of the first attributes that becomes apparent when reviewing the history of play is that whilst it is easy to recognise, it is not so easy to define. The first written record we have of the word play comes from Ancient Greece. D'Angour writes that the Greek word for play – *paizein* – is etymologically connected to *pais* – the Greek word for 'child', and to *paideia* – the Greek for 'education or training.' But this does not mean that Ancient Greeks confined the term 'play' only to the play of children. 'Play' also incorporated music and other arts and sports. Indeed, in Ancient Greece 'play' was an integral aspect of culture. For the elite, the playing of games, athletics, rhetoric, oration and improvisation were all linked to participation in government and the military. Today, play still tends to be primarily associated with childhood, though we continue to play throughout our lives: at sports, music and drama, for instance. So the word 'play' remains a somewhat ambiguous and all-encompassing word in the English language.

Perhaps because of its association with leisure and enjoyment, play is often defined as being opposite to 'work'. D'Angour argues that it was Aristotle who was the first to create the dichotomy between play and work that remains so strong in our thinking today.[28] Defining play as antithetical to work suggests that it is non-serious business relegated to children and childhood. This proves problematic for early childhood education, which has play as its core element. Strandell, says that differentiating children's play from adult work trivialises play and has consequences for the construct of the early childhood profession.[29] Yet the boundary between play and work is not clear-cut. When does playing football or any other sport become 'work' for professional athletes? Can work be playful? Many companies, especially those that rely on creativity, aim to harness their employees' playfulness by providing 'play-spaces' for their employees. Pixar provides its employees with a range of different playful environments especially designed to foster creativity and collaboration.[30] So defining play in opposition to work is problematic.

A further way that play is often defined is by its characteristics. There are multiple views on what these characteristics are[31] but generally play is considered to be:

- Intrinsically motivating: Play is considered its own reward to the player.
- Stimulating, and actively engaging: Play requires either physical, verbal or mental engagement with materials, people, ideas or the environment.
- Voluntary: Play is freely chosen. However, players can also be invited or prompted to play.
- Autonomous, under the control of the player and/or free from imposed rules.
- Non-literal/Symbolic: Play is often pretend, it has a 'what if?' quality. The play has meaning to the player that is often not evident to those outside the play.

[28] D'Angour [24].

[29] Strandell [25].

[30] Vary [26].

[31] See for instance Hughes, *Children's play and development*; Shipley [27].

- Process rather product oriented.
- Enjoyable/fun/pleasurable.

Even these characteristics are open to debate. Is it correct to say that play is free from imposed rules? Whilst children make up many of their own rules as they play, many games – such as board games, electronic games or sporting games – have imposed rules. Indeed, Vygotsky argued that 'play' (by which he meant socio-dramatic play) is not spontaneous – but rather contingent on players abiding by a set of rules.[32] Similarly, play is not always pleasurable. It can include frustrations, challenges and fears. Children are often excluded or exclude others during play causing pain and hurt.

Indeed the very notion of 'free-play' has been questioned by critical theorists. Ailwood, who uses Foucaultian notions of governmentality to challenge play, argues that it is a "regulatory regime of truth" and a "technology of governmentality."[33] That is, far from being value free, power operates through play in early years' settings as it is regulated and governed by the materials available to children as well as the time constraints of the settings. However, negotiations over resources during play may serve to uphold gender stereotypes.[34] Play is also monitored and restricted because of concerns for children's safety and only certain types of play are considered 'appropriate' in early years' settings. For example, 'rough and tumble' play is often curbed. In addition, early childhood educators make decisions about what constitutes 'normal' play, when and with whom children may play, as well as what they should do in their play.[35] In particular, some forms of play such as sexual play are taboo. So in reality, children's opportunities for exercising agency are constrained.

2.3 Play Is Natural

A second theme that transcends discussions of play across time is the concept of play as a natural phenomenon of the human condition. Children all over the world, from developed and developing countries, play – whether in parks and playgrounds, in rural or urban settings, in refugee camps, in homes or in communities. Across our diverse globe most children play. There are some exceptions when children do not play, but this often occurs when children are very sick.

Because of its naturalness, many theorists have valorized play as the 'correct' condition of childhood. Jean-Jacques Rousseau (1712–1778) suggested that "childhood is, or ought to be, a time of play and merry sports,"[36] argued that young children

[32] Bodrova [8], p. 359.

[33] Ailwood [28], p. 95.

[34] MacNaughton [29].

[35] Ailwood [30].

[36] Rousseau [31].

should be left free to play – rather than educated in restrictive classrooms. Rousseau, who lived in France prior to the French revolution, was concerned with the corruption and debauchery he saw in French society at the time.[37] Instead, he privileged nature and believed in freedom, individuality, equality and happiness. He believed that children were innately good but that society, through manipulative state apparatuses, such as education, corrupted them. Therefore, he argued, that children should be free from the corrupting influence of formal schooling and books, especially in the early years. Rather, they should learn from engaging with and examining nature through experiential learning. He made known his ideas about how children could be educated in his book *Emile, or Treatise on education*. *Emile* offered some ways of thinking about childrearing and education – many of which were quite revolutionary at the time and indeed remain quite radical today. In fact, so revolutionary were his ideas that his books were banned and burnt as seditious literature.[38] But it was not a very practical guide on how to educate children. He never intended *Emile* to be followed as a guide to teaching. Indeed, he referred to his writing as a "collection of scattered thoughts and observations" with "little order or continuity."[39] Others who were to follow Rousseau, such as Pestalozzi and Froebel, took many of Rousseau's ideas and developed them into more refined pedagogies.

Among others who similarly privileged play as the natural condition of childhood were the Romantics of the eighteenth and nineteenth century (1770–1850).[40] Similar to Rousseau, the Romantics viewed childhood as being the period when 'man' was the closest to nature and thus at our most innocent. They idealized play in poetry and literature. Perhaps some of the most evocative poems of the period are those by William Blake – such as his *Nurses' Song* which tells of children left free to gambol and frolic over the hills, admonished to return home only once the sun went down.[41]

'Play' continues to conjure up images of a romanticized and idyllic childhood. But a playful childhood may be far from the lived reality of many children. Even as Blake was writing his poems, childhood play was increasingly coming under threat in the West, from rapid urbanization and industrialization. Today, whilst we view play as natural condition of childhood in the West, many children around the world are forced into labour, sexual prostitution, war and slavery.[42]

The idea of play as a natural condition of humanity became particularly dominant following the publishing of Charles Darwin's (1809–1882) *On the Origin of*

[37] Braun and Edwards [18].

[38] Braun and Edwards [18].

[39] Rousseau [31], n.p.

[40] Wolfe [20].

[41] Blake [32].

[42] See for instance: Anti-Slavery Society: http://www.anti-slaverysociety.addr.com/slaverysasia.htm and World Vision: http://www.worldvision.com.au/issues/Human_Trafficking___Slavery/What_exactly_is_child_labour_.aspx.

Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life.[43] Following this text, evolutionary theory – whether accurately or inaccurately interpreted – heavily influenced views about play. From an evolutionary perspective, something so universally evident across mammalian species must serve some evolutionary perspectives.[44] Indeed, anybody who has watched the play of children will realize that it helps humans practice motor and other skills and roles, to work through problems, manage emotions and learn how to socialize with others. Even today, theorists continue to look to the play of other mammals to assist us to understand and explain human origins and behaviours.[45]

Darwin's ideas focused attention on children's development and so play became a legitimate topic of investigation, leading to the development of the child study movement of the late nineteenth century. Perhaps one of the most influential of the child study movement of the nineteenth century was G. Stanley Hall (1844–1924) from the United States, where child development studies were conducted at several universities. Determined to generate a universal explanation of children's development, Hall carefully observed and measured children's predispositions, beliefs and habits and what types of objects interested them.[46] Hall's controversial theory – that ontogeny recapitulates phylogeny – posited that the entire history of the human race could be observed in the development of an individual child – from an irrational, 'primitive' infant – to a fully developed, rational abstract thinking intellectual adult.[47] While this theory is no longer viewed as credible, Hall's ideas have nonetheless been influential. In particular, his idea that play develops in hierarchical stages continues to inform play research. Indeed, several theorists have mapped out the development of play into 'natural' maturational, unfolding stages. But it is perhaps Mildred B. Parten's (born 1901) 'play stages' that has been the most influential and enduring. Parten observed that children grow through six stages of social play development (unoccupied/solitary/onlooker/parallel/associative/cooperative) where the play becomes more complex as children grow older.[48] These play stages continue to inform early childhood educators' observations of children's social development. The focus on the naturalistic nature of play has repercussions for the early childhood education workforce. In particular, the notion that play is 'natural' contributes to the view that early childhood education is an unskilled profession. From this perspective it may be argued that if play is natural, then why do those who care for and educate children need formal qualifications?

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[43] Darwin [33].

[44] Cohen [21].

[45] Chick et al. [34].

[46] No author, "Granville Stanley Hall," A reprint of an article first published in *The American Journal of Psychology*, Vol. 35, No. 3, 1924, 4," *The American Journal of Psychology*, Vol. 100, Nos. 3–4, 1987, pp. 365–375.

[47] No author [35].

[48] Parten [36].

2.4 Play Is Beneficial for Society

Throughout history, theorists have argued that children's access to play has benefits for society. The first written record we have of these arguments come from Plato. His argument, which was radical for his time, was that children's play prepared them for their later participation in society.[49] He therefore contended that play should be harnessed for utilitarian purposes. A statement from Plato, translated by D'Angour, makes this point explicit:

> No society has ever noticed how important play is for social stability. My proposal is that one should regulate children's play.[50]

Plato, who was concerned with political stability in Ancient Greece, contended that if children were constantly changing during play they might become "habituated to change in their early lives [and] might grow into restless and dissatisfied adults"[51] which would lead to social upheaval.

> Let them always play the same games, with the same rules and under the same conditions, and have fun playing with the same toys. That way you'll find that adult behaviour and society will be stable. … As it is, games are always being changed and modified and new ones invented, so that youngsters never want the same things two days running. They've no fixed standard of good or bad behaviour, or of dress. They fasten on to anyone who comes up with some novelty or produces something with different shapes, colours, or whatever. This poses a threat to social stability, because people who promote this kind of innovation for children are insidiously changing the character of the young by making them reject the old and value the new. To promote such expressions and attitudes is a potential disaster for society.

D'Angour contends that Plato's ideas are likely to have been influenced by what he saw in Greek society at the time, a period marked by an "inventive and commercial climate" where children were becoming more visible and where "he may well have encountered children he considered overindulged with unusual toys, excessive games, and fancy clothes."[52] The congruence between Plato's ideas and contemporary concerns about play is remarkable.

Others too have recognised the role play has in transmitting social and cultural ideologies and the potential for harnessing play to challenge or sustain social norms. Rousseau's ideas to allow children to engage in natural play, free from societal influence, were tied to his political desire to repair what he considered a corrupt society. Similarly, John Dewey (1859–1952) viewed the place of play in education as to teach morality and virtue. He argued that "the grounds for assigning to play and active work a definite place in the curriculum are intellectual and social, not

[49] D'Angour [24].

[50] D'Angour [24], p. 299.

[51] D'Angour [24], p. 301.

[52] D'Angour [24], p. 300.

matters of temporary expediency and momentary agreeableness."[53] Far from being trivial, play can be serious business.

Recently, critical theorists have challenged the social transmission aspect of play. Chappell[54] and others, describing play as 'performance' have argued that play re-creates the often biased, socially unjust, power relations existing in society at large. Essentialised gendered play continues to shape feminine and masculine identities.[55] But play also has the potential to challenge, resist and subvert these power relations and dominant discourses by offering children counter-narratives.[56] By providing children with play experiences that foster their understandings of diverse cultures and ways of being that challenge inequitable gender norms and other unjust practices, and by supporting them to be critical thinkers, educators can encourage children's empathy, understanding and valuing of diversity, and may contribute to a more just society.

2.5 Play Is Beneficial for Individuals

The value of play for an individual's social, cognitive, physical and psychological well-being has long been noted. But these ideas became particularly dominant in the nineteenth century, a period of increased scientific investigation into children and play. We now discuss some of the most dominant and enduring theories about how play supports children's cognitive, physiological and psychological well-being and development.

2.5.1 Cognitive Theories

Cognitive theories argue that play is used by children to make sense of their world. These theories view play as a means for fostering cognitive functioning, language, mastery of problem solving skills and reasoning. Two of the most influential theorists in relation to play are Swiss scholar Jean Piaget (1896–1980) and Russian Scholar Lev Semenovich Vygotsky (1896–1934). Both these theorists emphasised the importance of play for children's cognitive development. Although they wrote their ideas around the same time, Vygotsky's ideas did not become known in the West until the late 1970s – due to restrictions imposed on psychology in Soviet Russia, and restrictions associated with the 'cold war' that limited access to ideas

[53] Dewey [37].

[54] Chappell [38].

[55] Gunn and MacNaughton [39], pp. 121–134.

[56] Chappell [38].

emerging in Soviet Russia.[57] For this reason, Piaget's ideas are usually discussed as a priori to Vygotsky's theorizations.

Piaget's focus was principally on understanding how the individual child internalised their world. Revolutionary for his time, his work was largely based on naturalistic observations of children engaged in play – including close examinations of his own three children.[58] For Piaget, play has three stages: practice play/symbolic play/games with rules.[59] He believed that these stages followed a particular order but that individual children passed through them at their own rate of development. Piaget's stages have formed the basis of a great deal of play research and continue to be used as a basis for observing and recording children's play.[60]

Like Piaget, Vygotsky believed that children internalize their world through play. But Vygotsky's approach, which is known as socio-cultural theory, has a stronger emphasis on the social context. Informed by Marxist ideas, Vygotsky argued that cognitive development occurs as a result of a dialectical exchange between the individual's biology and their historical, social and cultural contexts – including people (such as other children and adults) and tools (such as language and play-materials).[61] Vygotsky argued that the historical-social context provides a "zone of proximal development,"[62] the point of being capable of doing something with the assistance or collaboration with others, to the point of being capable of accomplishing the task independently. Vygotsky explains the role of play in the zone of proximal development in the following way:

> In play the child is always behaving beyond his age, above his usual everyday behaviour; in play it is as though he were a head taller than himself … The relationship of play to development should be compared to the relationship between instruction and development … play is a source of development and creates the zone of proximal development.[63]

It is not surprising that Piaget, writing in the West at a time of increasing individualism, should focus on individual learning, whereas Vygotsky who was writing in socialist Soviet Russia should focus on play as a social act engaged in with others. The differences between these theories, written at about the same time, demonstrate the way culture profoundly influences how we think about play. Though neither Piaget nor Vygotsky were early childhood education advocates, their ideas have been highly influential in the development of play-based early childhood education programs across the globe.[64]

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[57] Vygotsky [40].

[58] Lascarides and Hinitz [23].

[59] Piaget [41].

[60] Lascarides and Hinitz [23].

[61] Vygotsky [40].

[62] Vygotsky [40], p. 85.

[63] Vygotsky [40], p. 74.

[64] Lascarides and Hinitz [23].

2.5.2 Physiological Theories

In terms of physiological theories, perhaps one of the most readily apparent in today's 'folk' theory about play is Englishman Herbert Spencer's (1820–1903) 'surplus energy theory.' Spencer, drawing on (but perhaps misunderstanding) German philosopher's Friedrich von Schiller's ideas, argued that children play because they have excess energy they need to expend.[65] Despite Spencer's theories being largely disproved as a legitimate explanation of play, as children will continue to play even when exhausted, many adults without knowing it, draw on Schiller's ideas. For example, teachers infer that after long periods inside during rainy weather, children just need 'a good run' in the playground to burn off all the extra energy they have stored up.

2.5.3 Psychological Theories

From the perspective of psychological theories, play is seen as necessary for healthy psychological well-being. Two of the most influential figures in psychological theories concerning play are Sigmund Freud (1856–1939) and Erik Erikson (1902–1994). Freud and Erikson developed psychoanalytic theories to explain human behaviour. Although neither Freud's nor Erikson's theories were specific to play, they both believed pretend play was beneficial for children's social, emotional and cognitive development. Freud was particularly interested in the therapeutic benefits of play.[66] He viewed play as providing opportunities for catharsis. For example, children could use play situations to release anger and frustrations. Similarly, Erikson, who was a student of Freud, believed play served as a vehicle where children could 'play out' emotions and experience mastery, by engaging in increasingly complex skills.[67]

These cognitive, physiological and psychological theories continue to inform us. Over the last few decades, however, there have been strong criticisms of the scientific interest in children's play, and development more broadly. Some argue that these understandings are value laden and capture and protect dominant Western, middle-class ideals that privilege ways of being – such as a focus on individuality over collectivity.[68] Other criticisms point to the way the 'scientific gaze' has been complicit in colonising children's activities to create "ordered spaces" that produce, control, regulate and discipline children.[69] Regardless of these criticisms, scientific explorations of how play supports children's development continue to inform how

[65] Groos [42].

[66] Cohen [21].

[67] Cohen [21].

[68] Ryan and Grieshaber [43].

[69] Cannella [44]

we think about play. Whilst contemporary theorists recognise the criticisms and flawed thinking in many of these past theories, they continue to provide the epistemological framework of our thinking and remain important for legitimising arguments and advocacy for children's right to play.

2.6 Play as Curriculum

Beyond recognising the value of play for society and individual development, many scholars have gone on to argue how play can be used as 'curriculum'. One of the first to propose play as curriculum was Johann Amos Comenius (1592–1670) (sometimes written as Jan or John Amos Komensky), a Czechoslovakian philosopher who believed in education for all.[70] Comenius advocated learning through play and argued that children under 5 years of age should be allowed to play freely.[71] Comenius produced the first known illustrated picture book – the *Orbis Pictus* (translated from Latin to English as 'world in pictures') – a curriculum resource designed to support children's literacy development.[72]

Another who made a significant contribution to securing play's place as a curriculum tool was John Locke (1632–1704). An English philosopher and physician, Locke believed children were akin to a blank slate – 'tabula rasa' – and that if taught well they could be filled with knowledge from experience.[73] Locke viewed play as a 'positive force' for health and believed that the ideas and concepts developed when children were the foundation of later learning. He urged educators to make learning play-like: "By these ways, carefully pursu'd, a child may be brought to desire to be taught any thing you have a mind he should learn."[74] However, though Locke published his ideas on education, he did not develop a curriculum.

Whilst Rousseau made some attempts to show how play could be curriculum through his treatise *Emile,* as previously noted, his ideas were not practical. It was Swiss, Johann Heinrich Pestalozzi (1746–1827), drawing on Rousseau's ideas, who was the first pedagogue to develop a curriculum based on holistic, internally motivated, free play and self-discovery.[75] Pestalozzi argued the need for education to be based on three dimensions: moral, physical and intellectual. Educators provide opportunities for questioning and experimentation, and to engage children in learning through their 'heart, hand and head.' He established 'farm' schools for the children of poor families that modelled his pedagogy. Like Rousseau, Pestalozzi recognised the importance of the early years for children's growth and development. He especially valued the place of the mother as the child's first educator and was

[70] Lascarides and Hinitz [23].

[71] Sluss [1].

[72] Lascarides and Hinitz [23].

[73] Lascarides and Hinitz [23].

[74] Locke [45].

[75] Lascarides and Hinitz [23].

one of the first to argue that it was important that mothers be educated. His book – *How Gertrude Teaches Her Children* – was written to support mothers educating their children, including by providing stimulating play experiences.[76] We still recognise that mother education is one of the most significant protective factors for children's wellbeing.

Possibly the most influential play-based pedagogue was German Friedrich Wilhelm Fröebel (1782–1852). Fröebel, a deeply religious man with a keen interest in science and mathematics, bought all of these ideas together in his concept of *kindergarten* – translated from the German as 'children's garden' – a place where children would learn through play, with the support of an educated teacher. Throughout his writing about education for children, Fröebel privileges play:

> Play is the purest, most spiritual activity of man at this stage, and, at the same time, typical of human life as a whole – of the inner hidden natural life in man and all things.[77]

He argued that through play, children learn for the rest of their life: "The plays of childhood are the germinal leaves of all later life."[78] To support children's play, he developed educational toys known as 'gifts.' These beautifully constructed materials, included balls on strings designed to be introduced at infancy, and manipulative materials such as, blocks, and sticks, that older children could use to build and experiment. Through this play, Fröebel believed, children would develop richer ways of thinking about mathematical concepts such as number, size, and shape, learn the order and beauty of nature, and learn the idea of 'unity' between 'man' and God.[79] Fröebel also designed 'occupations' – curriculum activities, such as weaving, designed to foster 'useful' skills.

Though kindergartens were intended primarily for children aged 3–6 years, Fröebel, like Pestalozzi, recognised the value of play for children from infancy. He counselled parents, especially mothers, to play with their children and to provide time and space for their play. To support this play he wrote finger rhymes and 'mother songs.'[80] Fröebel's ideas were strongly taken up by middle-class women around the turn of the nineteenth century and they were instrumental in establishing Kindergartens.[81] Many of these women, who were also concerned with women's rights and suffrage saw Kindergartens as offering a legitimate and permitted form of employment. Play-based early childhood education, tied as closely as it is to 'mothering,' remains a highly gendered occupation.

The last significantly influential figure in play-based pedagogy discussed in this chapter, is Italian, Maria Montessori (1870–1952). Montessori's ideas were born through her interest in providing educational opportunities for intellectually

[76] Pestalozzi [46].

[77] Fröebel [47].

[78] Fröebel [47], p. 55.

[79] Fröebel [47], p. 55.

[80] Blow [48].

[81] Wong [49].

challenged children in the slums of Rome.[82] Observing the ways these children engaged with materials and learnt through play, Montessori created a pedagogy based on playful learning that aimed to support children's movement towards independence.

Montessori's ideas spread very quickly in the early 1900s and there are schools all over the world that still follow her system today. Classrooms based on the Montessori system are simple and uncluttered, with self-correcting didactic materials. Lessons are carefully structured, ordered and sequenced.[83] Whilst children in a Montessori classroom are free to choose materials from open-shelving (child sized furniture are a Montessori invention), these materials are carefully chosen by teachers. For Montessori, play was important business. Indeed, it was children's work. She did not support fantasy or make-believe play. Indeed, accordingly, Lillard suggests "Pretending has no place in Montessori education."[84] Should children engage in make-believe play in Montessori classrooms, teachers gently guide them to 'real work.'

Play remains the most significant pedagogical tool within early years' settings. Children's desire to play is harnessed by early years' educators to engage children in activities that promote active learning. With The Early Years Learning Framework,[85] the curriculum document for the birth to five sector in Australia, defines play-based learning as:

> A context for learning through which children organise and make sense of their social worlds, as they engage actively with people, objects and representations.

Tensions remain about the role of the adult and teacher in children's play, the types of activities and the degree to which play should be controlled, managed and framed.

2.7 Play as a Child's Right

The final theme we discuss is that of children's rights to play. There is evidence that play has been valued throughout history. We know anecdotally and from other sources that many cultures have been aware of the importance of play in young children's lives. There is archaeological evidence of children being buried with toys which suggests that play was valued. Further, play is depicted in art works. One of the most famous depictions of children playing is Pieter Bruegel's "Children's Games," painted in 1560. Whilst few paintings of this period depicted children at play, Bruegel's painting is a detailed depiction of some 200 peasant children of the Medieval period, actively engaging in 80 different types of games, many of which are recognisable today. Some examples include, boys playing a game of race horses,

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[82] Lillard [7].

[83] Lillard [7].

[84] Lillard [7], p. 171.

[85] DEECD [9], p. 46.

others playing leapfrog, 'tug of war' and riding a hobbyhorse. There are also girls playing a medieval form of jacks (knucklebones). Children depicted in the painting range from toddlers to adolescents. As well as illustrating how absorbing play is for children, it does suggest that, at least for Breugel, play was significant enough to be recorded in painting.

In the end it is not 'play' itself that is of central concern, but rather the child. Play should not be relegated to merely productive purposes, something to be 'used' for society's ends or because it is 'good' for children's development. Play is a child's right. One of the most powerful documents supporting children's right to play is the United Nations' Convention on the Rights of the Child [UNCRoC].[86] Developed 25 years ago and ratified by all nations except the United States and Somalia, the UNCRoC is a legally binding document that sets out children's rights.[87] Article 31 of the UNCRoC ensures that:

> State Parties [ie signatories to UNCRoC] recognise the right of the child to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts.[88]

Further, as Article 31 was "not well understood or appreciated by adults involved directly with children,"[89] a UN General Comment No.17 was developed and published in 2013[90]:

> To enhance understanding of the importance of article 31 for children's well-being and development.
>
> To ensure respect for and strengthen the application of the rights under article 31, as well as other rights in the Convention.
>
> To highlight the implications for the determination of obligations of governments, the roles and responsibilities of the private sector, and guidelines for all individuals working with children.

The General Comment sets out signatory Governments' responsibilities under Article 31. Indeed, in some countries the issue of children's play has received significant attention.[91] Despite this international legally binding document, children's right to play is not universally guaranteed.

Play remains illusive, ill-defined, controversial and possibly one of the least understood aspects of human behaviour. In this chapter we have highlighted that play has been viewed in multiple, even contradictory ways, across history. Many of these ideas form the foundation of what we believe about play today. We contend that having an understanding of this history can inform advocates' understanding of plays' potential to contribute to a more socially just society and support children's

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86 UNICEF [50].

87 UNICEF [51].

88 UNICEF [50], n.p.

89 International Play Association [17].

90 International Play Association [17].

91 See for instance the *British Play Charter*, http://www.playengland.org.uk/media/71062/charter-for-childrens-play.pdf.

learning, can strengthen arguments for play-based curriculum, and promote advocacy for children's rights to play.

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Chapter 3
Playing with Play: A Playful Reconnaissance

Randa Khattar and Karyn Callaghan

We have the right to play, but we don't have to.

(Reggio Children [1], p. 16)

Abstract This chapter reveals the ambiguities of play in both theory and practice, showing how this volatile history, definition and trajectory creates challenges and opportunities in both the intent and quality of learning.

This statement by a 5-year-old child reveals a nuanced understanding of both the concept of rights and that of play. Play can be expressed as a nexus between rights and choice – as *both* a right and a choice. Contemporaneously, it demands that societies protect it, and that it embodies a sense of articulated agency. In this way, the liberatory work of play is central to the democratic project.[1]

Etching the contours of play, while provoking images that sustain its heterogeneous, nuanced, and textured essence, is tantamount to pinning gel to a wall. Despite volumes written on play, the attempt itself to capture playfulness is elusive. Yet when seen, play is easily recognisable. Derived from the Old English *plega* – brisk movement – it is authentic, exuberant and charged with potential. It is purposelessly purposeful, or is it the other way around?

In this short chapter, we play with play but also interrogate this word as it may obfuscate more than illuminate. We wish to illustrate how we have considered play in our practice, and in the process to draw out some of the curves and contours and challenges it has presented for us as we – two educators working at the tertiary level in an Honours Bachelors Early Childhood programme in Ontario, Canada – continue the work of acquainting ourselves with play. We have some questions. What might happen to the intent and quality of learning (and teaching) when play's meaning is seriously questioned? What if play/work are seen as false binaries that keep a distance between children and adults, including educators? In sharing our reflections,

[1] Jans [2]; Moss [3], pp. 101–113.

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we invite you into a consideration to render meaning to the role playfulness might play in (re)orienting education toward a more playful peda/andra/gogy, or conversely to consider refusing the word.

3.1 Complex Renderings of Children (and Educators)

When children (and adults) are viewed as competent citizens with rights,[2] when they are viewed as "rich in potential, powerful, competent and most of all, connected to adults and other children,"[3] play takes on a different tonality and texture. As Jans notes, "While they are playing, children reveal themselves as meaning-givers that can actively intervene in their environment. While playing, they are shaping their environment and social networks. Play allows them to be actors."[4] This view of play may not be what is commonly understood. Surely, this 'playing' would not be preceded with the word 'just,' as is so often said of what children do. It is said dismissively. It is said to keep us from seeing what children do with their time. It imposes adult meaning on what children do. But when we see up close what children do, it is not frivolous.

Amble into the Diana School in Reggio Emilia, Northern Italy, and a visitor may encounter children and adults engaged in a shared project – questioning, investigating, wondering and focused intently – having decided, after much discussion, deliberation and debate on the next juncture of the inquiry. Educators who have studied and written extensively about the Reggio Emilia experience[5] have offered us a view of children (and adults) as rich, complex and always already engaged in making meaning. They see learning as a recursive and ethically responsive process of listening, revisiting and deepening meaning-making, made possible through the everyday act of pedagogical documentation, which takes up traces of children's learning in the form of visible multi-modal forms of documenting and engaging in a process of understanding and making visible that learning.

Foregrounding relationships in everyday interactions offers opportunities to make contextually and culturally-relevant meaning and interactions grounded in emergence.[6] The Reggio educators have engaged a conversation into thinking about how to think through and solve problems, to simultaneously weave and unravel what they refer to as "cognitive knots,"[7] to build and sustain relationships, and to communicate in multiple languages of expression all the basis for learning. They have also inspired a sensibility around embracing experience that might be captured by the slogan that hangs above the entrance of the Diana School: Nothing without

[2] Rinaldi [4].

[3] Malaguzzi [5].

[4] Jans [2], p. 37.

[5] Rinaldi [4]; Edwards [6]; Edwards et al. [7].

[6] Jones and Nimmo [8].

[7] Edwards [9], pp. 147–172.

joy! This pedagogical stance can be characterized as a form of reconnaissance through which iterative (re)actions and responses configure closer and deeper relationships.

Does this count as play? Maria Montessori regarded play as children's work. When do we describe adults as playing? Athletes play. Musicians play. We might not diminish what they do by saying it is "just play." It is understood that what they are doing is complex, skilled and perhaps even worthy of admiration. In this sense, children (and adults) do not make a distinction between work and play. Rather, what is important to them is the freedom to carry on with what most engages, intrigues, and motivates them. Brown reminds us that the "opposite of play is not work – the opposite of play is depression."[8] Such a statement retains and extends the etymology of the word play.

3.2 A Burgeoning Playful Context: Ontario, Canada

Globally, and locally, in Ontario, Canada, the landscape in early childhood is rapidly transforming. The recently launched Ontario Full Day Early Learning (FDEL) Kindergarten – which sees an Ontario College of Teachers (OCT) certified teacher with a Bachelor of Education degree, and a College of Early Childhood Education (CECE) registered early childhood educator (RECE) working as a teaching team with a group of children[9] promises a play-based, emergent and inquiry-based curriculum. A recent Ontario Ministry of Education policy document articulates the following view of the child, which is also central to our Bachelor of Early Childhood Studies programme:

> We view children as competent, capable of complex thinking, curious, and rich in potential. They grow up in families with diverse social, cultural, and linguistic perspectives. Every child should feel that he or she belongs, is a valuable contributor to his or her surroundings, and deserves the opportunity to succeed. When we recognise children as capable and curious, we are more likely to deliver programs and services that value and build on their strengths and abilities.[10]

This play-based pedagogical approach is being introduced at a time when assessment-driven practice has resulted in kindergarten children being laden with homework, when worksheets and "seat work" were the norm, when teaching was treated as technical, rather than as intellectual work. There was great concern about "getting children ready" for Grade 1, checking off discrete skills. Parents were made to worry if their child would measure up. The seemingly sudden change to a play-based approach was not met unanimously with support. Teachers had devoted a great deal of time learning how to implement that curriculum and liked the feeling of confidence that the important skills were being taught and measured. Parents

[8] Brown [10], p. 126.

[9] Ontario Ministry of Education [11].

[10] Ontario Ministry of Education [12].

were used to being given report cards that indicated how well their children were demonstrating the skills and knowledge that were identified in the benchmarks and what still needed to be “worked on.” Now, the children would ‘just play,’ and the contrast implied that learning would be diminished. Some teachers lamented that this was a step backward, because kindergarten had been play-based 20 years ago. Yet if we take a more complex view of children and watch carefully what they do when in a context that invites them to make choices from an array of interesting materials, we might reconsider “play.”

We introduce Jonathan: 1 year and 5 months old. He has come to a parent–child drop-in centre with his mother a few times over the past couple of months. He enjoys being able to move around by his own steam now, and shows this by moving a lot, and by moving things around: tables, chairs, people, all cheerfully. One educator in the room found this constant movement rather irritating, but rather than seeing it as something to be fixed, he was curious about what it meant to Jonathan, so observed him carefully, documenting his engagement with the room and the people in it. One day when Jonathan arrived, he saw a pegboard on a table, with coloured pegs that were intended to be put into holes that had a matching colour around them. Jonathan understood the intention, and put a few pegs into the board. But this was not a very interesting or challenging activity. He made it more interesting. He left the table and went directly to the table where there was modelling dough. He retrieved a cylindrical rolling pin and brought it back to the pegboard. Too big! But generally the right shape. He made another direct path, this time to the art shelf, where he retrieved a pair of children’s scissors and brought them back to the pegboard. Success! His third foray was to the writing table where he chose a red “primary” pencil, and went right back to the pegboard to insert it. Another success! His movements were deliberate; there was no wandering or seeking. An act of reconnaissance perhaps.

What the educator wrote in his documentation was:

> This suggests to me that much of his movement in the room is a kind of mapping of potential – one which he exploits as the situation demands.

Engaging in the act of documenting, and later making meaning of what has been documented, encourages educators to carve out time to reflect on what children’s play might mean to them, through their eyes. Having a camera and notebook at the ready reminds us that inquiry is ongoing, and if we are lucky, we will catch some of the leaps, some of the significant missteps that can be revisited later, and some of the many languages children use to communicate their navigation of the world. This makes us co-researchers, and allows us to invite other perspectives as we seek greater complexity in our understanding of children.

3.3 Playful Liberating Constraints: Sketches of an Early Childhood Tertiary Context

If we refuse the work-play binary, and instead pay close attention to the meaning-making that children are doing, the theories they are developing and testing, the nuanced negotiating they do in their relationships, then we may come closer to truths of self, culture, identity and experience. Yet what do such maxims offer in a tertiary educational setting? Can we find ways to be playful – with ideas, with strategies, with relationships, with materials? Might there be in the post-secondary university setting ways to nurture the "brisk movement" related to movement in thinking? Malaguzzi challenges us with his advice that,

> Life has to be somewhat agitated and upset, a bit, restless, somewhat unknown. As life flows with the thoughts of the children, we need to be open, we need to change our ideas; we need to be comfortable with the restless nature of life.[11]

There is risk involved to be sure. It means pushing against the certainties that lead to stagnation. It challenges the assumptions that sustain privilege. What are the elements that would promote this brisk movement? What kind of time? What kind of space? What kind of limits and freedoms?

In our early childhood program, we intentionally seek out "liberating constraints"[12] that might offer up sufficient structure within which we can think (and work) through assumptions and certainties, and trouble regimes of truth[13] that sustain inequitable practices within early childhood education. We encounter a challenge before the students walk through the door, with the creation of a subject outline that is heavy with policy that has a week-by-week schedule, and has detailed description of the work the students must do in order to get a check mark on the rubric. We are attempting to activate the productive tensions between these planned structures and emergent approaches to curriculum. We attempt to dwell in the space between – or the space straddling the hyphen.

We consciously strive to achieve coherence between what we teach and how we teach, as Lilian Katz[14] urged, taking to heart her warning that students will be inclined to teach the way they are taught, rather than what they are taught. Our attempts have included the gift of time (something the students comment on) to slow down, attend and be present in a mutually responsive way. Time offers itself up within immersions through playful investigation and inquiry. Here are some examples that are made possible with the gift of time. Natural materials are used as languages for communication. Reflective practice is activated with critical friends.[15]

[11] Malaguzzi [13].

[12] Davis et al. [14].

[13] Foucault [15], pp. 109–133.

[14] Katz [16].

[15] Costa and Kallick [17], pp. 49–51.

The principle of reconnaissance[16] is enabled, which signals recursion in its myriad nuances. These recursions may include returning to readings in different contexts and drawing on experiences that were had in first semester to mine the learning. Another option is to use of pedagogical documentation to give visibility to our own learning and questions, while students are engaging in the same practices of making their own thinking and questions visible as they document children's inquiry through play. We recognise that if our students are to embrace a view of the child as competent and curious and rich in potential, then they must have experienced being seen in this way. We have made a choice to play a role as provocateurs, co-learners, and researchers – a choice that is made anew every day. The context is emerging for thinking seriously about play. This is part of an international conversation[17] that moves to take children and play seriously as the ground for learning and teaching – nothing without joy.

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Chapter 4
Team Players

Felicity McArdle, Jennifer Sumsion, Sue Grieshaber, Kellie Bousfield, and Paul Shield

Abstract Using storytelling strategies, this chapter extends the traditional psychological frameworks of child development. Using a rhizomatic approach, the interconnectedness of knowledge, power and relationships is revealed, capturing the complexities and diversity of the early childhood field.

Play is an enduring construction of early childhood education. It has traditionally enjoyed a largely critique-free status in the field.[1] However, recent research has challenged traditional notions of 'free' or 'discovery' play.[2] The latest early childhood education policy and curriculum documents from Australia and England mark a change in expectations of play in early years settings and emphasise play-based learning rather than children 'developing' through free play. This chapter is grounded in the premise that knowledge about play is constructed, culturally situated, contingent and contestable. Researchers with an interest in play have a responsibility to make clear their locations in the numerous contexts and webs of relationships in which they operate, and how those locations are implicated in the way they produce, interpret and otherwise shape knowledge.[3] Our research team has been awarded funding from the Australian Research Council[4] to investigate how early childhood educators understand and practice play-based teaching. Here in this chapter, we play – with our own personal stories.

Four narratives compose this chapter. Each tells a different story about play. Each has a different voice, a different focus, a different direction. And yet, across the narratives, it is possible to identify some strong and shared beliefs and thinking.

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[1] Grieshaber and McArdle [1].

[2] Sylva et al. [2]; Ryan [3], pp. 99–114; Wood [4].

[3] We maintain that teacher educators and others whose roles include generating, framing, writing about or otherwise conveying knowledge about play have a similar responsibility. Please refer to Kincheloe [5, 6].

[4] In Australia, a large proportion of funding for research comes from the Federal Government via the Australian Research Council, making a highly competitive field for researchers seeking funding for projects, particularly in areas which are not high priority.

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Before moving on to the narratives, we frame them with a brief explanation for the conceptual underpinnings that shape our collective work. Next, for reasons both pragmatic and ethical, we explain some of the reasons for these narratives, which were produced through reflecting on how we each came to be interested in researching play. We do this to remind ourselves of our locations as researchers with respect to play and how each of these positions may shape our recently commenced research project: *Education Meets Play*. We also explain why we have conceptualized the chapter as bricolage. Consistent with the notion of bricolage, we then move away from a conventional linear presentation to piece together fragments of narrative, reflection and information concerning the *Education Meets Play* project.

4.1 A Frame

This chapter is underpinned by two theories that go beyond the more traditional psychological frameworks of child development. First, a philosophically inspired rhizomatic approach[5] to the interconnectedness of knowledge, power and relationships provides us with a means to take into account the complexities and diversity of the early childhood field. Accordingly, our study is based on the premise that there is no single, universal pathway for optimizing change in a diverse and complex workforce. Likewise, this chapter can be read using a rhizomatic approach. The stories are not hierarchical in importance and can in fact be read in any order. While each of the four narratives stands separately, there are threads and nodes of ideas that come together, indicating some commonalities from our differing histories. Ideas shoot off in different directions. In places, we arrive at questions, not answers, and invite readers to play by making their own sense of play.

The second theoretical approach that frames our thinking is the notion of regimes of truth.[6] We use this to explain some of the features that characterize the early childhood field. A regime of truth about play in early childhood education is that it is natural, normal, fun and innocent, and that children should be able to engage in child initiated play for extended lengths of time.[7] These truths or practices are common sense understandings that are taken for granted and rarely questioned. When different discourses meet, they can collide, compete, or co-exist comfortably,[8] and any number of discourses can be present in the formation of a regime of truth. As we play with our own personal recollections in this chapter, it is possible to consider some of the possibilities and contingencies around existing regimes of truth about play. Such understandings can shape educators' practices, and are the focus of our larger study.

[5] Deleuze and Guattari [7].

[6] Foucault [8].

[7] Burman [9].

[8] Foucault [8].

4.2 Why Make Clear Our Locations with Respect to Play?

One reason for clarifying our locations with respect to play is that while some of us have worked together before in various combinations and circumstances, we are now part of a newly constituted, and larger, research team. Team members come from the disciplines of education (including early childhood education) and sociology, with each team member bringing different theoretical and methodological interests and expertise. Diversity in a research team can have many advantages and rewards, but can also be a source of misunderstandings and tensions.[9] A collective commitment to taking a reflexive stance can help to prevent or minimize such misunderstandings and tensions. Indeed, Barry, Britten, Barber, Bradley and Stevenson go so far as to contend that:

> reflexivity employed as a team activity, through the sharing of reflexive writing (accounts of personal agendas, hidden assumptions, and theoretical definitions) and group discussions about arising issues, can improve the productivity and functioning of qualitative teams and the rigor and quality of the research.[10]

Barry et al. are referring to qualitative research. Arguably, reflexivity is even more important for research teams undertaking mixed methods studies, such as the *Education Meets Play* project, given widely-held views that qualitative and quantitative methods are grounded in incompatible ontological and epistemological assumptions. While these views strike us as unnecessarily dichotomous, they reinforce the need to continue to cultivate our "research self-consciousness."[11]

Cultivating research self-consciousness or reflexivity requires paying attention to our "own presence"[12] in the *Education Meets Play* project. We have an ethical imperative to scrutinize our purposes in undertaking the project, and the assumptions that we bring to it. This is because our assumptions and purposes always find their way into our research undertakings, and "always make a difference in what knowledge is produced."[13] Invoking understandings from psychology, Kincheloe refers to the importance of "researchers coming to understand the social construction of self, the influence of selfhood on perception, and the influence of perception on the nature of inquiry."[14] From a more critical perspective, he also emphasises the need to identify and articulate the various structures that "covertly shape" our own and others' "research narratives" and hence the research itself.[15] To this end,

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[9] For a recent review of literature about team research in education and other social science disciplines, see Sumsion [10].

[10] Barry et al. [11].

[11] Kincheloe [5, 6], p. 324.

[12] Barry et al. [11], p. 30.

[13] Kincheloe [5, 6], p. 6.

[14] Kincheloe [5, 6], p. 6.

[15] Kincheloe [6], p. 324.

Barry et al.[16] advocate group reflexive writing about such issues, a suggestion subsequently taken up in this chapter in the form of shared personal narratives.

Continuing in that vein, we reflect individually and collectively in this chapter on two related questions: (i) what experiences, assumptions and purposes have brought me/us to the *Education Meets Play project*? and (ii) how might they shape the ways in which the project is conducted and the knowledge that is produced? In doing so, we collate and align fragments of personal narratives, reflections and information about the project in a form we describe as bricolage.

4.3 Why Bricolage?

Structural anthropologist Claude Lévi-Strauss[17] used the French term bricolage as a metaphor for mythical thought. Challenging the bifurcation of mythical and scientific thought, he argued that both involved forms of rationality and were "parallel modes" of generating knowledge. While scientific thought typically emphasises the hierarchical ordering of concepts and hypotheses, mythical thought or bricolage involves selecting "fragments or left-overs of previous cultural formations and re-deploying them in new combinations."[18] Bricoleurs (those who undertake bricolage), Levi-Strauss explained, have an extensive and heterogeneous, but finite, repertoire. Knowing that nothing will perfectly suit the situation, challenge or problem they want to address, they "make do 'with whatever is at hand.'"[19] Pop artists, consistently produced collages that combined text from newspapers, images from magazines, food packaging, advertising material, and references from movies and television – all "tinkered" with to produce new images and communicate ideas. When selecting pieces of text or images, it is not always possible to find the perfect choice. Instead, artists 'make do' with what they have collected. 'Making do' requires the bricoleur to "engage in a sort of dialogue … [with materials] choosing between … [and] to index the possible answers."[20] For this reason, bricoleurs need many skills, and "are adept at performing a large number of diverse tasks."[21] They are "constantly on the look out for 'messages'" and signs.[22] These messages, according to Levi-Strauss, can be thought of as "summaries of the past experience of the trade and so allow any new situation to be met economically."[23] In this chapter, four of us provide a personal narrative with a focus on play. In the interpreting of these

[16] Barry et al. [11].
[17] Lévi-Strauss [12], p. 13.
[18] Johnson [13].
[19] Johnson [13], p. 17.
[20] Johnson [13], p. 18.
[21] Johnson [13], p. 17.
[22] Johnson [13], p. 20.
[23] Johnson [13], p. 20.

four interconnecting narratives, it becomes possible to introduce new thinking about the "problem" of play meeting with education.

Notions of bricolage inspired by Levi-Strauss have travelled across many disciplines, where they have been appropriated in diverse ways.[24] In cultural studies, for example, Hebdige has used bricolage to explain the construction of 'subcultural styles' such as punk.[25] By bringing together familiar, concrete elements and signs in unfamiliar "improvised combinations,"[26] new meanings can be generated that disrupt, radically adapt, and / or extend established meanings. In this way, bricolage can become a subversive practice.

Arguably, in educational research, bricolage has generally been used less provocatively than in cultural studies. Rogers notes that typically it has been used to denote "methodological practices explicitly based on notions of eclecticism, emergent design, flexibility and plurality."[27] Denzin and Lincoln[28] for example, refer to the complementary nature of quantitative and qualitative methods in mixed methods research. They describe the piecing together of different and diverse tools, methods, interpretations and representations tailored to "the specifics of a complex situation."[29] Bricolage goes beyond to convey more subtle nuances. The effect is one of a polysemic collage of fluid, shifting, interconnected texts, images and other forms of representation. In this chapter, when the four narratives are placed together, they produce possibilities for new readings of play, over and beyond their singular stories.

A critical edge to these conceptualizations of bricolage is elaborated by Kincheloe, McLaren, and Steinberg.[30] They argue that in addressing complexity, bricoleurs have a responsibility to uncover and document the influence of "the invisible artefacts of power and culture" operating within the research context, and also in one's positionality as a researcher.[31] We endeavour to approach this chapter with this kind of critically reflexive consciousness, and in doing so contribute to an "evolving criticality"[32] concerning understandings and practices with respect to play.

In what follows, we present four individual narratives on play. In the construction of these narratives, we provide an account of how we have come to be interested in researching play, and how our positions on play might shape the conduct and findings of the research. We lay each story down, to be read as 'stand-alone' pieces, and also to be read alongside each other, as interconnected. In places, we pose questions, for ourselves, and for readers. In the tradition of a bricoleur, we are always mindful

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[24] Johnson [13].

[25] Hebdige [14].

[26] Hebdige [14], p. 135.

[27] Rogers [15].

[28] Denzin and Lincoln [16].

[29] Denzin and Lincoln 2005, p. 4.

[30] Kincheloe et al. [17].

[31] Kincheloe et al. [17], p. 168.

[32] Kincheloe et al. [17] p. 169.

of the possibilities and affordances that might be produced by the combinations and placement of the materials. We begin with Sue's memories of play- that begin with her own childhood, thread through her career to her current position, weave back on her own children's play, and her most recent experiences in Hong Kong.

4.4 The Play of Life?

4.4.1 Sue

Play has influenced most of my life. My memories of play stem from my childhood and adolescence to my experience as a teacher education student, early childhood teacher, early childhood teacher educator and researcher, and parent. This is a long time to hoard memories, but they are vivid, joyous and arduous. It might sound pithy but play and learning is something that has fascinated me since I first stepped inside a preschool in my second year as a pre-service teacher education student. I did not really know what I wanted to do when I finished high school but ended up accepting a place in a program to become a primary school teacher. When still at school and listing preferences on the application form for tertiary study, I decisively told my mother that I was not interested in going to the kindergarten teachers college. The first semester of the primary teaching program was exciting because it meant being a long way from the confines of home and exploring the possibilities of living in student residential accommodation in a capital city. Needless to say I didn't do very well when the results were released, but I did pass. Somewhere in the second year I visited a state run preschool and from the moment I entered the building I was totally enthralled by what I saw, felt, heard and smelt: I was in sensory overload. At the time, the Queensland government was engaged in a state-wide program of building preschools for children aged 4–5 years, for sessional preschool. I applied to do a specialisation in preschool education and was accepted (my GPA had risen significantly), graduated as a primary and preschool teacher, and was appointed as a preschool teacher in a small country town in Queensland.

My family circumstances meant I had not been able to attend kindergarten or preschool as a child. We were living in a remote part of Queensland, Australia at the time, what is officially classified as the outback. There were no facilities nearby, not even what is now known as a playgroup. Once when we were on holidays at a coastal town, my mother arranged for me to attend one session at a local kindergarten when I was about the age of four. I have two vague memories from this experience: one of standing back and watching others paint at easels, unsure of what to do. I was used to drawing and playing in red dirt; and watching the water as it soaked into the dirt after being released from boiling the clothes in the large backyard copper vat. When the water was cool we played in the wet dirt. The second memory is of a bus ride home from the kindergarten, sitting still, watching out the window, wondering when I would get there; and clutching something tightly. I do not

remember what it was that I had my fingers wrapped around so firmly but suspect it might have been a painting.

As a beginning preschool teacher, play was an important part of the program and I was captivated by what and how children played: who played with whom and what was said and done. At that stage, I was immune to many of the nuances of the politics of play, probably because of my romantic understandings of the wonder, importance and value of play. However, the racism in the small country town where I began teaching was a rude awakening and was reflected in what the children did and said. I very quickly became aware that some of the white children would not play with the Aboriginal children and told them why in strong racist terms. From this disturbing experience, I began to notice different features and details about play, and more things began to trouble me that related to gender, class, space, use of language, and the way some children used their size, age, and social and cultural capital in play. It took many years and a PhD before I was able to articulate these concerns in some sort of coherent way. As a preschool and primary classroom teacher for 13 years, I was disappointed that I did not achieve what I would call a satisfactory way to deal with many of these issues as they emerged in children's play in the classroom and the playground.

As an early childhood teacher educator and researcher, I have been puzzled and intrigued by how educators might engage with and enact the understandings of play in the Australian Early Years Learning Framework. This perplexity has been heightened by my recent experience of living and working in Hong Kong, where play is an entirely different matter in life and in early childhood education, despite what the Hong Kong Guide to the Pre-primary Curriculum says. Play in Hong Kong is influenced by layers of interpretation; social, cultural, political, educational and economic factors; and the availability of space.

The Framework begins a new era because educators are now accountable for children's play and learning in ways that they have not been before. This prompts me to wonder how educators might be merging play and learning (play-based learning and intentional teaching) and how hard it is to do that when many educators have been used to child development guiding their daily work, and adopting emergent approaches to curriculum that often involve long periods of 'free play' where educators are not 'teaching intentionally.' I wonder about the requirement of all those who work with children to use the Framework in their daily work, how this affects their work and what it means in the everyday life of an early childhood educator that their context is 'assessed' on how well they are enacting the Framework. What are the implications of this for play? How do educators deal with the requirement to assess children on achieving the outcomes in the Framework? These are just some of the questions that I continue to mull over because they impact directly on the daily work of educators. But the biggest one is probably at the macro level and about how the Framework might change the face of early childhood education and play in Australia because of the potential changes in the daily work of educators.

4.5 Play as Possibility?

4.5.1 Kellie

A simple black and white picture is pinned above my desk. A collage of naïve art, it was delivered to my inbox some years ago. The picture was a 'gift' from a former student and arrived attached to a short note, "Kellie, I saw this and thought of you. I thought you would like it."

The picture juxtaposes two images. In each image, three children are pictured at a baseball game. In the first image, titled 'equality', the children are each standing on a single box. Each box is of equal size and shape. The children, however are not. This has implications for the smallest child who despite being provided with a 'box' equivalent to his peers, can still not see the baseball game. Instead, his view is restricted to the back of a wooden fence. The second image, labelled 'justice', tells a different story. Pictorially, the scene differs in one small but significant way. In this image, the smallest child has been provided with two boxes. His short stature now visibly compensated, the child now has an uninterrupted view of the game. For critical educators, the image relays a simple but powerful message: equity is about more than equality.

In identifying this picture as suited to my interests, my student had recalled my passion for social justice. She had tapped into my earnest belief that education is a site of policy and practice that may help or hinder "human possibility."[33] She also appeared to recall my conviction that educators remain well-placed to help children overcome the many "barriers, impediments and entrapments" that can and do stand in the way of educational success.[34] It is this passion and conviction that has driven my work in the sociology of education generally, and now more specifically has led to my interest in the project – *Education Meets Play*.

I look again at my picture of the three children at the ballgame, and I am convinced of the importance and potential in this project. I think of French sociologist Pierre Bourdieu. He argued that an individual's academic success or failure must be understood as relational.[35] His seminal work drew attention to scholastic achievement as intricately linked to 'inherited' rather than 'natural aptitudes.' Rather than a "universe of perfect competition or perfect opportunity,"[36] Bourdieu noted that individuals entered 'fields' with unequal amounts of 'capital', making some "better players than others in certain field games."[37] Ironically, Bourdieu turns to metaphors of games and play to communicate his complex ideas. Furthermore, Bourdieu argued that within these games "capital in all its forms," functioned as power.[38] It

[33] McGregor [18].

[34] Smyth [19].

[35] Bourdieu and Passeron [20].

[36] Bourdieu [21], p. 46.

[37] Mills [22].

[38] Bourdieu [21], p. 46.

follows then that children's access to 'capital', and 'power', must be a focus of education and research if we are to combat 'inherited' disadvantage and strive for social justice in educational settings. What are the differences, for instance, in children's play which might be explained by their socioeconomic status? Or geography? Or other factors which effect their access to 'capital' and 'power'? And how will this impact on their learning outcomes?

Bourdieu's argument around 'inherited' aptitude draws heavily on his notion of 'habitus'. Habitus is regarded as one of Bourdieu's most complex, yet significant "thinking tools."[39] Conceptualized as the property of an individual, habitus, inclusive of capital, is an integral part of human action, guiding what one does, or does not do, indeed often can, or cannot do, in their daily life.[40] Bourdieu considers habitus as both structured and structuring.[41] It is structured "by one's past and present circumstances, such as family upbringing and educational experiences. It is structuring in that one's habitus helps to shape one's present and future practices."[42] How might an educator plan for play in a setting where most of the children live in high rise apartments and spend hours each day watching television? Will play be different for children who are recently arrived refugees from an African country and are becoming English speakers? The role of the teacher becomes crucial in this way of seeing learning outcomes and education.

Bourdieu did not regard habitus as deterministic.[43] Rather, he acknowledged habitus as disposing "actors to do certain things" and as providing "a basis for the generation of practices."[44] For those who have drawn on Bourdieu's work to inform their empirical analysis, the concept of habitus has offered explanations for persistent social regularities in particular social fields. In education, the notion of habitus has been, and continues to be utilized to explain the reproduction of disadvantage and persistent correlation between class, socioeconomic status, and academic outcomes.[45]

Whilst Bourdieu's theory has to date been most often applied in critical analysis of primary, secondary and higher education settings, Bourdieu was keenly aware of the value of education in early childhood. For example, when discussing 'habitus', he specifically noted how this early education, "forms the basis of the reception and assimilation of the classroom message".[46] He also insisted that "the success of all school education … depends fundamentally on the education previously accomplished in the earliest years of life."[47] For him, this education happened in the home.

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[39] Wacquant [23].

[40] Jenkins [24].

[41] Bourdieu and Passeron [20].

[42] Maton [25], p. 50.

[43] Wacquant [23].

[44] Jenkins [24], p. 79.

[45] Bourdieu [21]; Mills [22].

[46] Bourdieu and Passeron [20], p. 43.

[47] Bourdieu and Passeron [20], p. 44.

Thus for Bourdieu,[48] "early domestic education" contained either "a positive value (head start) or a negative value (wasted time, and doubly so because more time must be spent correcting its effects)." Bourdieu's notion of a 'head start' speaks directly to government and academic rhetoric in Australia emphasising the importance of quality and pedagogically sound early childhood education. For example, Australia's Early Years Learning Framework notes early childhood education as key to 'closing the gap' for disadvantaged and marginalised families.[49] Likewise, Australia's National Quality Standard notes the provision of quality services as central to ensuring experiences that will contribute to children's future learning success.[50]

With the introduction of the new national learning framework in Australia (EYLF), play-based learning is considered by some as a "political and pedagogical intervention."[51] The requirement for universal access to early year's education offers unprecedented opportunity to make measurable inroads into the inequality that continues to plague Australia's education system. However, whilst the acknowledgement of habitus and disposition in curriculum documents is an important step forward in combating educational inequality, it is not clear how play-based learning, as a means to establish such dispositions, is understood and enacted by educators in early childhood settings.

I look again to the picture above my desk. I am reminded that equity is about more than equality. Social justice is always becoming. If research can lead to refined understandings and improved actions that allow *all* children access to quality early years experiences, then it might be that concepts of habitus and dispositions can provide solid foundations for educators who aim for all children's learning success. As educators and researchers, we occupy an important and privileged position. The power of early childhood research, education and play to transform human possibility should not be underestimated.

4.6 Opening up Spaces to Think Differently About Play

4.6.1 Jennifer

Academic careers can have many serendipitous, and sometimes ironic, twists and turns. Finding myself engrossed, relatively late in my career, in an Australian Research Council-funded project about play in early childhood education, for me, epitomises those serendipities and ironies. For when I became an early childhood teacher educator and academic in the 1980s, it was through an entry point some considered 'not quite legitimate'. Although an experienced and Master

[48] Bourdieu [21], p. 48.

[49] Australian Government Department of Education Employment and Workplace Relations (DEEWR) [26].

[50] Australian Children's Education and Care Quality Authority (ACECQA) [27].

[51] Sumsion and Grieshaber [28].

degree-qualified primary (elementary) school teacher of 5–8 year olds, I could not claim specialist expertise or disciplinary knowledge in developmental psychology and play – the twin sacrosanct and foundational pillars that, for many of my colleagues, constituted the inner bastion of early childhood education.

It was a close and fiercely guarded field. Developmental psychology and play were to be thought about, and taught to, early childhood pre-service teacher education students in ways that preserved the traditions of a proud heritage. There was a perceived urgency to this task of preservation for, through structural changes beyond its control, early childhood (teacher) education generally, and the almost 100-year old institution in which I now work, were about to be catapulted into the broader academy.

I was yet to come across the writing of social theorists such as Michel Foucault, Gilles Deleuze and Félix Guattari whose work later became so influential to my thinking. Yet even so, intuitively I could see that, in the context in which I found myself, 'legitimate' understandings about developmental psychology and play were highly territorialized and striated spaces, governed by codes and truths that were not to be challenged. So, not very courageously but possibly wisely, I chose to stay well clear and, instead, carved out teaching and research interests in less iconic areas of early childhood education where intellectual constraints seemed fewer. I relished the opportunities that my doctoral studies afforded to explore a heady and, in retrospect, a possibly indiscriminate smorgasbord of new ideas. I caught glimpses of the new understandings those ideas could open up. The prospect of ever retreating to the territorialized, striated spaces encapsulated for me, by play and its twin pillar of developmental psychology – became totally untenable.

I have continued to welcome with excitement and relief the opening up and broadening of the intellectual spaces as early childhood (teacher) education has gradually gained recognition and traction as a scholarly field of endeavour. As these spaces have become more diverse and porous, there has been a gradual but significant decoupling of developmental psychology and play. Thanks, in large part, to the sustained work over at least two decades of 'reconceptualist' early childhood researchers and educators within Australian and internationally, it is now generally considered legitimate, and indeed in some contexts desirable, to examine, investigate and teach about play from a wide range of diverse theoretical perspectives.[52]

That intellectual freeing up is evident in Australia's first national curriculum framework for early childhood education – *Belonging, Being & Becoming: The Early Years Learning Framework for Australia*.[53] I had the privilege of co-leading a national consortium of early childhood academics, educators, service providers and peak organisations that worked closely with senior policy makers representing the Council of Australian Governments in the inevitably contentious task of developing the Framework. I am still somewhat surprised but profoundly pleased that in the intense and protracted negotiations about what was, and was not, possible to say in

[52] Brooker et al. [29].

[53] Australian Government Department of Education Employment and Workplace Relations (DEEWR) [26].

the Framework, an explicit recognition of the value of theoretical diversity, and the intellectual freedom that implies, survived the political processes involved in securing approval for the national implementation of the Framework.[54] For me, one of the most important statements of the Framework is the encouragement to explore the affordances of different theoretical perspectives:

Different theories about early childhood inform approaches to children's learning and development. Early childhood educators draw upon a range of perspectives in their work which may include:

- developmental theories that focus on describing and understanding the processes of change in children's learning and development over time
- socio-cultural theories that emphasise the central role that families and cultural groups play in children's learning and the importance of respectful relationships and provide insight into social and cultural contexts of learning and development
- socio-behaviourist theories that focus on the role of experiences in shaping children's behaviour
- critical theories that invite early childhood educators to challenge assumptions about curriculum, and consider how their decisions may affect children differently
- post-structuralist theories that offer insights into issues of power, equity and social justice in early childhood settings.[55]

In advocating theoretical diversity, the Framework recognises the ethical and intellectual dimensions of early childhood educators' work, as well as the more commonly acknowledged dimensions. For example, it explicitly encourages educators, individually and collectively, to:

- discuss and debate theories to identify strengths and limitations
- recognise how the theories and beliefs that they use to make sense of their work enable but also
- limit their actions and thoughts
- consider the consequences of their actions for children's experiences
- find new ways of working fairly and justly.[56]

I have often wondered whether the Framework's encouragement to exercise intellectual freedom 'speaks' primarily to highly qualified educators. Some encouraging signs suggest that this is not necessarily the case. In a recent research project commissioned by Australia's largest provider of early childhood education and care services, I had the opportunity to interview several educators who held minimal professional qualifications. They, too, spoke passionately of their excitement about

[54] Sumsion et al. [30].

[55] Australian Government Department of Education Employment and Workplace Relations (DEEWR) [26], p. 11.

[56] Australian Government Department of Education Employment and Workplace Relations (DEEWR) [26], p. 11.

engaging with diverse and complex theoretical ideas.[57] On the other hand, findings from earlier research undertaken prior to Fleer et al.[58] and shortly after[59] the implementation of the Framework suggest that many educators could be likely to retain a strong attachment to traditional ways of thinking about play, informed only by theories from developmental psychology.

4.7 Making a Movie

4.7.1 Felicity

This story is about one of those magical moments that happen in the classroom, when everything seems to come together. The children were excited by what they were learning, and they were energetically engaging with what Tanya read as learning experiences. Tanya considered that they were all engaged in furthering their knowledge, skills, and techniques, and learning with each other, at various levels of achievement and capacity. She was enthused and learning at the same time. Too good to be true? Tanya will be the first to say that this does not happen every day, but teachers know that when this does occur, such events stay with you. Through such experiences, we learn to trust children as learners, who are capable of planning and directing their own learning, with enthusiasm, curiosity, and an eagerness to investigate and know more.

The group of 28 children was a mix of ages 5, 6 and 7 year olds, in a suburban primary school in a capital city in Australia. Some had just begun school, and others had begun school with Tanya the previous year. Over the 6 week period described here, the children were learning and mastering skills and techniques. Perhaps more importantly for Tanya's way of thinking, they were developing positive attitudes to learning, and schooling. They worked on literacy and numeracy at their various levels of ability. They practised writing skills. They were thinking mathematically, making various calculations, and solving problems about space, time and order. They were able to integrate their knowledge of science, animals, technology, and how things work. They were immersed in language, and constantly talked with each other and their teacher, about what they were doing, and about how they were managing their learning. They would burst through the doors in the morning, bringing with them new ideas from home, and quickly get on with their work (play?). Their parents were involved in the process, wanting to contribute ideas, or hearing about

[57] J. Sumsion, L. Harrison and S. Irvine, *An investigation of Goodstart Early Learning's centre-based processes in engaging with the National Quality Framework (quality assessment, rating and continuous improvement system) with a focus on building the capacity of Early Learning Consultants*, (Unpublished Report, 2013).

[58] Fleer et al. [31], pp. 51–80.

[59] Monash University for the Australian Government Department of Education Employment and Workplace Relations [32].

the further developments. All this Tanya saw. To an observer going by the classroom, it might have appeared that the children were simply "playing." They were making a movie.

Afternoon …. Making a Mouse Poem

One afternoon, after lunch, the children were all engaged in various activities, and Tanya noticed a couple of children at a loose end, not being able to settle on anything in particular. They had no ideas, no purpose. They were in the collage area, looking for something to do. Tanya had been trying to find time herself to do something with their pet mouse, as it had not been getting much attention lately. So she went over to the collage area, and began writing out the poem "I Think Mice Are Rather Nice" on a big sheet of cardboard. She hoped this would draw in those couple of children, and they might talk together about the poem as she wrote.

Sure enough, they were interested, and Tanya wondered aloud how they might make the poster more attractive. She then asked the children if they might look for some pictures of mice in the magazines, as she did not want to illustrate it with cartoon style mice. They set to that, and had much conversation with each other as they came across things of note in the magazine.

They came across a promotion for the movie "Babe," which had some wonderful pictures of the little mice, which featured in the movie. They quickly cut them out for the poster, and then asked Tanya if it would be also possible to use some sheep. Tanya couldn't see how they could use them for the poem which was only about mice, and the children were disappointed. Meanwhile, this excitement had drawn in four or five other children, who also wanted to cut out the sheep, the dog, the pig, and all the other animals. They cut some out, and one girl, Monica, pasted hers onto paddle-pop sticks, and began making them speak. Tym then had a "bright idea" and said "I know, let's make a movie!" At this stage, Tanya had no idea how much knowledge these children already had about movies and movie making, and what a fascination it held for them.

A flurry of activity began with this group of about six children. They cut out figures from the magazines, stuck them on paddle-pop sticks, began some sort of constructions with boxes, all the while giving each other ideas, and directions. Tym announced that "First we need a script." "What's a script?" someone asked, and Tym explained that you had to write down all the things that were going to happen in the movie. He commandeered Sam to do this, as he knew that Sam was very good at story-writing, not one of Tym's strengths at the time. Tanya was pleased to see this, as although Sam was accomplished at writing, it was never something he chose to do, and she hoped that this would show him some purpose and the benefit of his skills. So he was sat down, whilst Tym paced around him with his hands behind his back, dictating. At this point, it was going home time, and the children put their unfinished work on the bench and went out the door talking about their movie.

The Next Day

Tanya reflected (briefly) that night on what the children had been doing, but only really wondered if the movie would continue. Through experience she knew that it was quite possible that the children would come back and not give it another thought. When the door opened in the morning, Tym marched in with a "camera". It was a plastic laundry detergent bottle, with a cardboard cylinder coming out of the spout, and he hoisted it up on his shoulder, announcing that it was for the movie. Tanya and a group of children talked with Tym about the design.

What was happening in the rest of the room? A larger group of children were now engaged in the movie, making rockets from milk cartons, a stage (like a puppet theatre), the sound equipment (how do they know all this?), and a night scene and a day scene. The movie was to be named "Babe Goes to Space." However, not all the children were involved in this. Others were pursuing other interests at the same time: painting, puzzles, computer, drawing, reading, writing letters, playing in the house corner. Again the unfinished work was put to one side, and the children went home for the weekend.

Over the weekend, Tanya gave some thought to ways that the other children could be involved in this, if the interest continued. Previous experience had taught her that if something like this captures the children's interests so strongly, it can be a powerful learning experience for all, children and teacher, and one of those magic moments that stays on in the memory. However, Tanya decided to wait to see what the weekend break would mean, and whether the movie was still a hot topic.

After the Weekend…. Tym Arrives with Multiple Copies of Script

Monday morning. Tym marched in with FIFTEEN copies of the script, printed out on his computer. As the movie makers continued on with their bustle of activity, Tanya noticed a group of the younger children, sitting on a row of chairs that they had placed to face where the movie was being constructed. She asked them what they were doing, and they said "We're waiting to see the movie." The movie-makers were very touched by this, and so they began to hurry, trying to get it ready for the audience. Tanya suggested to the children waiting that they should organise some tickets, and numbers for their seats. So they went off to cut out tickets, and write numbers on them. This activity drew in a few more children, but the young ones went back to sitting in the seats waiting.

The movie makers seemed to feel enormous pressure then, and so they performed their 'movie.' Everyone got ready to watch. Tanya dressed in the finest clothes from dress-ups, and she took one of the dolls with her. They told her at the door that no babies were allowed, as they cry too much. Tanya thought that was a bit cruel, so they reluctantly waived the rule – but not without dissent.

So the movie was shown. What an anti-climax. In fact, no-one was satisfied, and Tanya could tell they were disappointed that it had all been over so quickly. Everyone

just stood in the middle of the room looking at each other. What to do? Tanya asked them if they thought they might like to make another one.

Another Day, Another Movie: Popcorn and Lollies

The next movie was titled "Super Hero Space Pigs." Erin took over the writing this time. She was a very accomplished writer, who also loved to write, and had very creative ideas. All the children were involved in making a movie. Some were working on the script with Erin. Some were making sets and characters. Some were working as 'technicians,' working the sound system, and the cameras. The cameras, by the way, had undergone major modifications. They now had a slightly wider cylinder that fitted over the first cylinder, and so could slide up and around, for "zooming." Some were making tickets, and money. Some were making popcorn, complete with a rope system that had to be strung around tables, and across the room, to "show the people where they have to line up to buy lollies and popcorn." Some were getting dressed up, ready to go to the movies. And Tym was "directing". He had made a sign for the back of a chair, saying drktor (director), and Erin had made one saying "Second Mate."

Eventually, working through the same processes, that movie was performed. It began with a narrator, who said "As you will recall, the last time when we left the pigs, they were…." But again Tanya felt that the children still had a lot more that they wanted to do with movies. Tanya's observation was that the children always found the end product quite a disappointment, and it was apparent that they had much more pleasure and involvement in the process, rather than the product. At the same time, upon reflection, Tanya thought they might have addressed this, and through discussion, worked out ways of achieving a more satisfactory result.

What positions are available to Tanya at this point?
The children are undoubtedly playing, but is this *just* play?

If the children are merely handling materials, or being presented with tasks as a sink-or-swim proposition, they are being short-changed in experiencing learning. Children can see themselves as composers of meaning. They can create objects and images that contain and communicate their ideas and impressions. This does not occur without a teacher's help and participation. This is not a simple matter, and teachers vary in their interpretations of this part they play in children's play based learning.

"The movie" story looks at a broader concept of learning, and a more complex version of play than is normally associated with young children. The children in the story were seeing, interpreting, solving problems, taking risks, experimenting, re-doing, practising skills, seeking solutions, expressing meaning, and appreciating the work of others. There is a certain pleasure in working in a room full of children who are happily and busily engaged in pursuing interests of their own with energy, enthusiasm and curiosity. At the same time, they can be seen to be developing and practising skills, designing, achieving goals, defining and solving problems,

thinking creatively, and interacting with each other in a positive and cooperative manner.

Teachers can encourage children to develop the skills and processes they need to bring their ideas into form, by helping children to plan and remember deliberately. At various times in the day, a teacher can be busy talking with children, discussing problems which might have arisen, seeking solutions or sources for help, finding ideas and reasons for writing, joining in the game in the house corner, observing and listening. Through these interactions, others can support children as they learn, and at the same time be learning about them and their interests and needs.

When the children made their movie, it was the knowledge and skill and sensitivity they had acquired through repeated encounters with play materials, processes, and techniques which allowed them to give form to what they had seen and learned. The children were more concerned with expressing and creating, rather than the final 'product.' Their work was not meant to function as individual, self-sufficient statements, but rather was part of a close and circular link between words, images and body languages. Many of the children were already familiar with a range of sophisticated forms of entertainment and games. Classroom activities struggle to compete with the inviting array of choices available for many of today's 'netizen' children,[60] and teachers must work with children's capacities and interests. Watching and attending to children's play is an opportunity to learn more about them.

4.8 Conclusion

In Felicity's narrative, the rich detail of children's play differentiates between this version of play and what others might think of when simply hearing that children 'learn through play.' The role of the adult is sometimes that of co-player, sometimes 'director,' sometimes observer, sometimes documenter, sometimes teacher. When read together, our four narratives work to produce images of play-based learning, along with raising questions for further inquiry into the skills required of teachers to combine play with requirements for learning outcomes, and supporting the goals of success for all children. Sue's questions about workforce, Kellie's concerns for social justice, Jennifer's interest in the Framework, and Felicity's pictures of play-based learning – thread together some commonalities and a range of different ways of seeing play in a rhizomatically-inspired approach. We finish this chapter with some of the reflections prompted by our group reflexive writing, as we prepare to generate data for our larger study *Education Meets Play*.

Reflecting on the personal narratives produced in this chapter, we finish with the following questions that will shape our further inquiries into play:

[60] Luke [33].

- Is it play? According to Ailwood,[61] children don't consider it play if adults are involved, or if it takes place in an educational setting.
- Power, cultural capital, social capital, differences. The 'rules' in a play-based classroom are sometimes 'invisible' to some children, but nevertheless are present and governed. Who could succeed in Tanya's classroom? Who might not?
- How would a developmental theorist read Tanya's classroom? Bourdieu? Deleuze? Foucault? Other favourite theorists?
- If curriculum is to be a place for play, what would enable the teachers to ensure success for all children? What might be the constraints?

New theorizing about play and education in early childhood settings has challenged traditional notions of play. Recent research has challenged the place of free and discovery play in early childhood education. Ryan[62] showed how play in child-centred approaches is political and how power relationships operate under the guise of children being free to choose what to play, where and with whom. Studies depict how some children are excluded by others in free play situations that involve skin colour, proficiency with English, size, and cultural differences.[63] Alongside this critical thinking about play, there is a long-held nostalgia and unease about the threat to play posed by the push for academic curricula and teaching methods for young children.[64] One result is a moral panic over the "disappearance of play," a loss of innocence and freedom. In response, some early years educators may go into siege mentality, defending play in the classroom, resisting structure, avoiding teacher-direction, or any actions that might be considered stifling or constraining children's freedom. There are others who caution against these hands-off approaches to teaching and learning, rejecting the notion that children, left largely to their own devices, will learn naturally through play.

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[61] Ailwood [34].

[62] Ryan [3].

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Chapter 5
Faculty, Candidates, and Children at Play: Perceptions and Dissonances

Linda Charko, Cameron Fraser, Don Jones, and Umar Keoni Umangay

Abstract Much of the research into play focuses on children's learning. However this chapter activates play between academic staff, teacher candidates and children. Of particular emphasis in this chapter is the analysis of exploratory and constructive play.

Play is a complex notion. It has been part of the literature in relation to student learning for decades. The authors of this chapter are part of a faculty of education which has staff from an early childhood education program where play-based learning is integral to their work, work side-by-side with staff from a primary/junior education program. This is an environment where academic staff and teacher candidates congregate to prepare educators to work with children. Those candidates also regularly work in a school or child care environment along with their ongoing academic study. The extent to which play is expressed in their collective relationships with candidates and children became a fruitful exploration. For this chapter, the authors interviewed Charles Sturt University staff based in Burlington, in Ontario in Canada, alongside candidates and graduates and assembled some notions about how play is perceived, experienced, and impactful in classes on campus and in educational settings in the field. They looked for trends, unique interpretations, and comparisons among different contexts to provide insights using anecdotes and examples while drawing on their own observations and experiences.

As well as some open response discussions and conversations, the authors also gathered responses to three questions:

- How did/do you experience play at CSU? In classes? In practicum? Other?
- What impact did/do these experiences have on your learning/teaching? Your attitudes and dispositions?
- How are you defining play as you describe these experiences?

The meaning of play was not formally defined in advance. Instead the manner in which the term is used by the participants within their contexts is explored. Dictionary definitions, theoretical interpretations, and common use of the term are

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numerous and extensive. The different meanings of the word often shift dramatically when paired with other concepts (such as to play sports or games, play music, play with ideas, play hooky, role play, play rope). As Eberle realized, "The very abundance of definitions [of play] makes choosing among them difficult; more than one expert has termed the enterprise futile."[1] Rather than predefining play in advance for this chapter, for the authors and participants, multiple meanings of play emerged through the group discussions as imagined by the participants within the contexts their experience. Such ideas are coupled with ideas expressed in literature about play. This includes literature about varieties of play: *locomotor, rough and tumble; language; exploratory; constructive; pretend and sociodramatic play; and games with rules.*[2] They are compared to different characteristics of play, also identified by Gray as self-chosen and self-directed: the means are more valued than end, guided by mental rules, non-literal, imaginative and active, alert, but non-stressed frame of mind.[3] Finally, there are connections to elements of play identified by Scott Eberle: *anticipation*, *surprise*, *pleasure, understanding, strength* and *poise*. Such perspectives and contexts for play are activated in the paragraphs that follow.[4]

After reviewing the data, four perspectives were examined regarding how play is expressed. Even though the types of play that surfaced in the discussions involved more than social play, the perspectives explored in this article are framed through social interactions among key groups of people involved in the program. The perspectives include the interactions of (a) staff with each other, (b) staff with candidates, (c) candidates with each other, and (d) candidates with their children in educational settings as part of their ongoing practicum.

5.1 Staff with Each Other

Organisations that are consistently voted the "Best Place to Work" by *Fortune Magazine* often provide environments to make the workday less stressful and more enjoyable.[5] This is especially important when organisations are going through a significant change. Maneuvering through a change is often nerve-racking and may not be focused on the wellbeing of staff involved in the change. The focus can often be organisational, generating the required functional concessions required for the organisation and not on staff morale or finding joy in the work.

As staff struggled with substantial changes at the CSU, the Burlington campus and community transformed, discovering strategies that continued to made work enjoyable. Staff had found ways to create a work environment where all staff liked coming into work every day. The mechanism behind the successful work environ-

[1] Eberle [1].

[2] Gray [2].

[3] Gray [3].

[4] Eberle [1].

[5] Catherine Dunn [4].

ment was, in part, play. As things became vague in the ensuing change, the staff held together as a team by taking time to find opportunities to play. At times it may have felt like a life raft set adrift, but this made personal connections even more important. It would have been easy to isolate each other from the ambiguity but instead a cohesive bond formed to weather the storm. This was done informally in daily interactions, and more formally in meetings.

5.1.1 Informally

A foundation of the workplace is trust and respect. Over time staff has built a space where ideas are shared openly without fear of judgment or disregard. One lecturer talked about the explicit forms of play in which the staff are involved.

> Play looks like meeting in the halls and excitedly sharing ideas, creating end-of-year staff videos for teacher candidates that highlight the eccentricities of staff members, and visiting colleague's classrooms to poke fun and join the discussion. This joyful, friendliness is playful and makes you look forward to coming to work.

There is an aura of laughter, spontaneity, respectful taunting and other attributes of social play described by Peter Gray.[6] There is a sense of play as an activity engaged in for enjoyment and recreation. The outcome is an authentic, collaborative learning environment being modelled for and with teacher candidates with the intent of some degree of transfer. As another lecturer put it, "The more you feel safe; there is congruence between how you are taught and how you teach." There is also a sense of intentionality to the play, making it not entirely spontaneous, but *constructive* as Gray would describe it while capturing all of the characteristics he uses to describe play.[7]

5.1.2 More Formally

Staff team meetings are deliberately structured around norms of mutual respect that have been collaboratively formalized in an "aspirations for engagement" document. There are parallels here to sport or games that are bound by agreed rules, and where the play happens within. While not entirely recreational play, these meetings are arenas for playing with ideas, perspectives and issues. There are moments of anticipation, surprise, pleasure, understanding, strength and poise that reflect Eberle's six elements of play.[8] Staff listen, probe and paraphrase all within an environment of agreed trust and respect.

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[6] Gray [2].

[7] Gray [3].

[8] Eberle [1].

5.1.3 A Purposeful Atmosphere of Play

As Paolo Freire states, "Dialogue cannot be carried on in a climate of hopelessness. If the dialoguers expect nothing to come of their efforts, their encounters will be empty, sterile, bureaucratic and tedious."[9] In these meetings there *is* a sense of purpose and hope. One lecturer described how this discourse was encouraged in a safe, productive environment,

> The more we play the safer we feel to share difficult ideas. When we struggle and feel uncertain there is a ground of amiableness that moves us forward even when the ideas are complex and challenging. The dialogue is rich because we are passionate about the work we do daily in educating future teachers to make a difference in the lives of students. We look for the possibilities and dialogue in an open forum of listening and learning rather than telling and resisting.

There is a sense of putting ideas out on the table, playing them out, and having others respond and play them back. This sense of play seems to be what holds staff together in the face of change, but also provides a creative and productive mechanism to deal with the functional and structural requirements of the change process. It evokes the sentiments of Stuart Brown who suggests that play creates social connections and integrates us into an environment in a way that would diffuse the problem of alienation.[10] It offers us the opportunity to form new relationships and boosts creativity and innovation. It also seems to provide staff with a personal sense of commitment to the organisation where one's voice is invited, heard, and an honoured evocative of Jim Knight's description of an effective leadership and learning environment, "When I listen to you, and you listen to me, there is the hope that we can create something new and better and create a better tomorrow."[11] The importance of personal voice, or personal role within the game, is emphasised over and over again by the staff. Parker Palmer reinforces the importance of teachers finding their voice. "Any authentic call," he writes, "comes from the voice of the teacher within, the voice that invites me to honour the nature of my true self."[12]

It is partially with this notion of teacher voice that another lecturer took the volleyball metaphor further: "The serve is like the provocation. When the ball is in the air we are still playing. We practice here at the university but the game is played out when the teacher candidates are in their school practicum placements." Yet another lecturer describes how these behaviours in formal and informal environments among staff also spill over into classes: "In our classes we play with ideas together with our candidates and this generates a sense of excitement. We volley ideas back and forth with our colleagues and our teacher candidates." The intentionality of the playful environment for dealing with the pressures of change, while setting a stage

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[9] Freire [5], p. 80.

[10] Brown [6].

[11] Knight [7], p. 42.

[12] Palmer [8], p. 29.

for rehearsal of skills that would be transferable to the classroom, is substantially echoed by candidates in their discourse about their play experience at the campus.

The staff at CSU, Ontario have joined together to create what they believe is an authentic atmosphere of productive and purposeful play in order to supports all voices; a desired state intended as a cornerstone of an excellent teacher education program. It is also the impression of the staff that this atmosphere is productive for managing change on functional, structural and personal levels. It is also the desire that the sense of play also translates into interactions with candidates, and eventually to interactions with their students in schools.

5.2 Staff with Candidates

At the CSU campus in Burlington, Canada, teacher candidates and lecturers share a unique relationship. Due in part to the smaller numbers of candidates and staff, and a relatively small physical campus where everyone regularly sees each other, lecturers move beyond 'just knowing the candidates' to building a community that is inclusive, inviting, thoughtful, and joyful. Steven Wolk in *Joy in School* says that teaching is hard work. He states that,

> it is in everyone's interest to help teachers find joy in their work. So teachers must strive in whatever ways they can to *own their teaching* so that each morning they can enter their classrooms knowing there will be golden opportunities for them – as well as for their students – to experience the joy in school.[13]

5.2.1 Sense of Relationships and Community

In a similar manner to how they have built relationships of play among themselves to make the work environment productive and enjoyable, the lecturers at CSU stated their belief in the importance of creating a community where joy, playfulness and genuine caring are demonstrated with candidates themselves. In turn, if this becomes the experience of teacher candidates in their learning, then these same teacher candidates have the model to embed play and joy in their classrooms. To reiterate a statement from one lecturer, "play happens in the hallway – we play together when we bump into each other, when we come up with exciting ideas, when we come to share the bouncing back and forth of ideas." This is true of interactions among staff, but also between staff and candidates. There is a continual dialogue in the hallways, classrooms and common areas where personal and professional ideas are tossed and played with. Lecturers are rarely found in their offices when candidates are on campus. Interviews with teacher candidates acknowledge that candidates recognise this

[13] Wolk [9].

unique relationship that staff and candidates have. One teacher candidate stated, "there is the collegiality, feeling of positivity and support that contribute to the amiable factor; this feels like a good spot." In a video interview conducted on campus with students in 2009, a candidate said,

> My experience here has been so different [than at other schools]…There is a feeling of belonging, and all of those things about community that we are creating in our classrooms, I feel it here.

In that same interview, other candidates say that,

> One thing that I have come to appreciate right from day one here, is how everyone's opinion is valued right from the very beginning. You really get a sense that, from all of the professors and all of the teachers that they really are interested in what we think and what I think individually.
>
> I like the fact that it is still small. And we kind of have personal relationships with the lecturers. As well, they are interested in us. We are not just a number like many universities…and knowing our names. That's such a big thing.

In another video interview in 2012, a candidate, referring to staff stated,

> They were always so personable, approachable. I always felt like I was never a number. I was a person. And even that started right from the info session and continued all the way until now. I've always felt that way.

The play with ideas facilitates and builds respect, care and scholarship. Tim Brown states that when you are in a trusted environment you then have the security to take risks; you have the security to play.[14] He says that when there is a sense of trust, then it allows us to take the kind of creative risks that we need to take as designers. Teachers, one could easily state a case for, are the ultimate designers – every day they orchestrate the environment to optimize candidate learning, to create conditions for inquiring, collaborating, questioning, and playing. Our school for learning then, must regard 'play and joy' in high esteem – a necessity for learning. One lecturer states that it is just those items that one might think of as unnecessary, for example, "wearing matching clothes, playing That's Me – That's You, high-fiving the teacher candidates before they leave for the practicum block," that playfulness, in reflection, are the most necessary moments of the day . These small moments in time are the elements that ground the relationships; that make the work enjoyable, sustainable, playful and joyful. One teacher candidate stated that, "math hasn't been my strength or my favourite subject, but I quite enjoyed it. I would look forward to our math class and look forward to the things I could implement in my own classroom… I want to come in with a great fresh attitude towards it." Another candidate stated, "when you start to relax and are laughing and you are giggling [physical education class]… having things set up like that show us the value of how we could set something up like that for kids in our classroom, then no one has to feel centred out." Lecturers and teacher candidates strive to create opportunities for play within the teacher education program and teacher candidates in return create class-

[14] Brown [10].

rooms where "the hearts and minds of children and young adults are wide open to the wonders of learning and the fascinating complexities of life."[15]

5.3 Candidates with Each Other and in Classes: Playful Rehearsals to Professional Practice

In addition to the interactions expressing play between and among staff and teacher candidates, the dynamics of play is also expressed in the professional conversations among teacher candidates in classes. For this section, the context of their intra-play conversation continues to be the examination of the knowledge, skills, and dispositions from a diachronic perspective which looks for common themes and/or causes of the phenomenon of play. When candidates speak of their own play within the program, there are many parallels to the aspects of play identified in other interactions.

The play dialogue was consistent amongst the candidates and with the conception of play in classes echoing aspects such as experimenting, problem solving, creating, exploring, gathering material, and laughing. There was a common dialogue about having freedom to discover and to experiment, or use *exploratory play* and *constructive play.*[16] Coupled with this were some characteristics such as engaging in activities that were *self-chosen and self-directed, imaginative*, while having an *active, alert, but non-stressed frame of mind.*[17] These were explicitly expressed in art classes, about which candidates said,

> when painting and we got to draw [our choice of] geometric shapes … we drew whatever we wanted … we were allowed to experiment and figure things out on our own … ideas not shoved down our throat … [instructors did] not really guide us…

The role of the lecturer seemed to be non-intrusive to the candidates, and it seemed that the inquiry and discovery of play-based activities were self-generating and allowed to be freely developed through interactions among candidates. As one candidate stated, "rather than set expectations we were allowed to freely explore with each other…we have the freedom without right and wrong." There was talk of safe environments and lack of pressure in a position of cooperation and collaboration, reminiscent of the security to play and to take risks expressed by the staff and candidate interactions. So the conditions for play were recognised as being in place to foster collaborative, social play. There were positive interactions between teacher candidates as they described the emotions of play on campus in classes. This was expressed through words and phrases such as, "fun! …this is so much fun… I'm so proud of it…laughing… loved it."

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[15] Wolk [9].

[16] Gray [2].

[17] Gray [3].

Of particular note was the *exploratory* and *constructive play* drawn from experiences when building paper towers in science and technology classes where the play was also guided by *mental rules*. As one candidate put it, "[I have an] understanding of what structures stand up better …this is experimentation …this is meaningful and I will remember it." In reflecting on their explanations of the science behind the structures and teaching this to others in their groups, candidates projected that the playful learning experience might parallel the learning experiences they provide their students to help them, "remember things more when teaching someone else … give them confidence." It was also recognised the learning experience might be transferable to children, "… this is a way children makes sense of the world." There was also a desire to replicate these experiences with children such that the experiences in class might be considered a knowledge, skill, and dispositional rehearsal or simulation (a form of play) prior to using such strategies with children.

What was unique from candidates' perspectives is the recognition of their "play" in classes on campus as being rehearsal for practice. In a program where candidates are on campus for 2 days and in practicum for 2 days each week, there is often an regular back-and-forth movement from playing with ideas in practicum and processing them in classes, or conceptualizing ideas in classes (similar to *language play, exploratory play* and even *sociodramatic play*) and then trying them out in practicum.[18] As one candidate put it, "I can come back and throw things off with the professors and say, 'hey, this is what happened. How can I deal with it?' And then you get those tools [that you need for that situation]." This rehearsal of teaching practices prior to their application in a school setting with children as a practicing professional, is another aspect of play where the learning benefits were described by a candidate, "Yeah, everything that we are learning in class we can take immediately to the classroom and apply, and it's like staying in there because we are learning and we are using it right away."

The intent behind creating an atmosphere of play on campus is the hope that some of the knowledge, skills and dispositions of play will be encouraged in the practicum experience when working with children. Despite many comments that they saw very little play in the instructional portion of the school day in their practicum, candidates did talk about attempts to infuse some play into their placements with children and what they noticed when they did.

One area of note when designing learning experiences for teacher candidates, were some of the structural requirements from the university. For example, it is required that subject outlines be designed and distributed to candidates in advance of the subject delivery. These outlines include particular assessment items, assessment criteria, study schedules with weekly topics and other predetermined structures. Some discussion described how these challenge the desire to build on emergent and responsive topics that evolve through candidates' experiences in the field, particular interests and/or needs of their students. Pre-established assessments and assessment criteria also negate the ability for candidates to *constructively* or *creatively* play with or have some control over the design of such items, to exercise

[18] Gray [2].

voice, or co-create the items and criteria. The ability to do this would be productive to their practice, which involves designing such things in their work with students. When predesigned and published in advance, it becomes an intricate task to design a subject within the bounds of course objectives that is also based on exploration, problem-solving, inquiry and other more free-flowing creative pathways that allow play by candidates with both content and modes of expression. A form of this dissonance was also mentioned by candidates in their discussions of play with children in the practicum.

5.4 Teacher Candidates with Children in the Practicum

Interviews with Teacher Candidates revealed sensitivity about the complexity of play. Early in the conversation it was noted, "Play is very complex. What aspect are we talking about?" To reveal this apparent complexity, numerous attributes of play with children emerged throughout the discussion, which were very similar to attributes identified by academic staff. This may indicate some degree of desired alignment between the academic setting and the child setting. In any case, the attributes were numerous and highly nuanced. These attributes included notions of play being fun, playful, engaging, meaningful, creative, imaginative, experimental, invested, memorable, a type of contest or challenge, inquiry, elements of risk, based in curiosity, freedom of thought, and absence of right or wrong. Gray provides some useful characteristics of play as a framework to tease out the teacher candidates' comments about play with children. He speaks of play being self-chosen and self-directed, motivated by means more than ends, guided by mental rules, imaginative, and conducted in an alert, active but non-stressed frame of mind.[19]

5.4.1 Motivated by Means More Than Ends

Much of the dialogue centred on motivation, or attitudes and dispositional impacts of children at play, such as receptiveness to learning by students, but also a heightened student engagement and a decline in classroom management issues. The candidates agreed that play itself was motivation enough for self-regulation of behaviour. As Gray puts it,

> A child's desire to play is so strong that it becomes a motivating force for learning self-control. The child resists impulses and temptations that would run counter to the rules because the child seeks the larger pleasure of remaining in the game.[20]

[19] Gray [3], pp. 139–153.

[20] Gray [3], p. 152.

The sense of joyful learning was given by way of one example of having grade 5 students write poetry about “Smarties” using the candies as a sensual experience that became ripe with metaphors which were playfully used in the children’s poems. The reaction by the teacher candidate was,

> This is so much fun. And I say learning should be fun. That includes the engagement. That includes the issues of classroom management. All those things come together when it is a joyful learning experience for them.

Play was then recognised as a desired state in the classroom, where the learning feels playful, students are fully engaged and receptive to learning. The idea that students were simply motivated by the play itself was unanimously agreed to, as was the idea that within that playful environment students remain on task…for the purpose of the play without any need for external class rules or *ends*.

5.4.2 Creative Flow: Conducted in an Alert, Active but Non-stressed Frame of Mind

Candidates noted that, “play needs to be fun, and engaging and creative… you use your imagination” which relates to Gray’s attribution of imagination in play. This was a common observation but they also set cognitive layers around this as a mind-set or a cognitive state. “Being in a state of flow…I think that is a really big part of play.” That feeling of playfulness expresses as “flow” is a concept described by Csikszentmihalyi as being free to explore without restriction.[21] The notion of flow and concentration on the part of the children and the resultant learning that was observed was something that was frequently noted. This parallels Gray’s alert, active but non-stressed frame of mind, where the player’s mind is not distracted by fear of failure. To support the condition of a lack of fear, candidates went on to confirm that, “I think the environment needs to be safe so that they will take risks in the discovery that can take place with play.” Additional support for the educational value of this state of mind is acknowledged by Wong and Csikszentmihalyi who suggest that this high level of concentration is a strong predictor of grades and accomplishment of long-term goals.[22] If it has such value, it is surprising that the context for much of the play observed by candidates was not within the normal learning environment.

[21] Csikszentmihalyi [11].

[22] Wong and Csikszentmihalyi [12].

5.4.3 *Purposeless: Self-chosen and Self-directed*

The teacher candidates referred most often to play experiences that happened outside of the structured school day, in a period where there was some free time where learning expectations were set aside. It was noticed that the level of engagement was heightened during that time.

> [In free time] That is when you would see those little things happening…and then you are out of time and they have to put things away, and you think, oh you missed an opportunity. They were just getting into it.

In this environment and in other situations noted by the candidates, there was a perceived need that they had to get back to real learning, clean up and do some schooling. So there was a frequent question about valuing these experiences as learning and an almost rebellious notion expressed in this manner: "are they really learning? Yes they are. I've seen it…and I think, yes, let's just extend it and not clean up yet." Recognising and articulating the learning was a struggle but that learning was happening was often noted, "They were having so much fun and they didn't even know they were learning." Candidates retained a firm belief that learning was happening but there was a dissonance that seemed to challenge that belief.

5.4.4 *Dissonance*

Play was expressed by the candidates as a very desirable mindset for learning, but there are some current initiatives that may unintentionally impede that sense of play and playfulness in learning and unintentionally devalue it as a mode of learning. At the present time, there is a thrust in Ontario to focus on students knowing the purpose of their learning and identifying success criteria. Drawing on the work of Black and William[23] this is briefly stated in *Growing Success*, a policy document for teachers in Ontario to follow:

> Share learning goals and success criteria with students at the outset of learning to ensure that students and teachers have a common and shared understanding of these goals and criteria as learning progresses…strategies such as sharing learning goals and success criteria, providing feedback in relation to goals, and developing students' ability to self-assess – as a way of increasing students' engagement in and commitment to learning.[24]

By sharing learning goals and criteria by which they are assessed with students prior to their engagement in learning activities, educators may in fact be diminishing the sense of intrinsic engagement that may be otherwise experienced in a more playful context. Gray makes the point even more clearly, "When we engage in an activity purely to achieve some end, or goal, which is separate from the activity

[23] Black and William [13].

[24] Ontario Ministry of Education [14], p. 29.

itself, *that activity is not play*." Making the point even stronger, he says "It is possible to ruin play by focusing attention too strongly on rewards and outcomes."[25]

Sadler extends this argument, pointing out that some current practices in education such as 'assessment *as* learning' in which students assess their learning based on clear criteria, results in a *displacement* of learning by procedural compliance to the success criteria or achievement without understanding.[26] This is done by reducing complex tasks into a series of minute success criteria to which they should comply. This seems hardly playful. Sadler goes on to say that the practice of 'scaffolding learning,' although done with the best of intentions and with some laudable theoretical bases, can also trivialize learning by providing so much explicit support that the child becomes dependent.[27] This would be contrary to Gray's notion of play being self-chosen and self-directed, motivated by means more than ends. In play, children use a natural assessment of their progress in meeting their goal within the play, but are not looking for external criteria used to judge learning objectives. In effect these attempts to formalize these with students may shut down those desirable attribute that candidates identified as conductive to learning in a state of play. In the conversations with candidates, many of the examples cited were of students' spontaneous play in moments that were outside of "learning" situations. As opposed to the activity being about students trying to *learn* something, the activity is trying to *do* something.

So it may be that our candidates were blinded by the belief that good learning is only conducted in an atmosphere of extrinsic learning goals, success criteria, and assessment, while play is purposeless joyful, and risk-free unencumbered by such restrictions. Yet their instincts and appreciation for what play has to offer were also not to be tethered. The challenge was to find the learning.

5.4.5 Teacher as Observer: Backward Mapping the Learning

One of the major moments of realization expressed by candidates was the reorientation of teaching perspective from a lesson delivery orientation, to an observer of students' orientation, looking for the learning that happens in play, rather than prescribing and directing the learning. As one candidate put it,

> At first I thought…really is there a lot of learning happening here? But…I thought it *has* to be happening so I'm going to *look* for it. And then being able to see it, it allowed me to better support it, and to be more intentional.

Play in the educational setting seems to involve a shift in perspective to be receptive to the learning as it is happening rather than delivering or transmitting the learning; dialogue rather than monologue. The teacher is able to analyse, deconstruct and

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[25] Gray [3], p. 146.

[26] Sadler [15].

[27] Sadler [15], p. 391.

assess the skills being used and where the student struggles and is able to manoeuvre the play into territory that can advance those skills and concepts. So they expressed the desire to find the curriculum *in the play* and help students to articulate learning *after the play* so as to not encumber the playful state of learning. Learning is expressed after the play as *reflective* opposed to as the reason for the play.

> The activity had all the expectations that I needed to cover. They [students] didn't know that. We talked about it afterward, but the process was engaging, and the product was something they were all invested in and they were so proud of it. Here's a great example of what play looks like in an older grade. And it's meaningful to them and they'll remember it.

To quote Gray again, "The player is playing for fun. Education is the by-product."[28]

The challenge for our candidates was to find the "by-product." This required a shift in paradigms. But once the learning was identified, another shift happened; the realization that other curricular areas were left untouched. How can they address those?

5.4.6 *Purposefully Orchestrated: Forward Mapping the Learning*

With the apparent dichotomy between students at play which is intentionally purposeless in terms of extrinsic learning objects and assessment criteria which can restrict the sense of playful flow, and teachers needing to meet curricular expectations and assess to improve the quality of the work students do, candidates spoke about how to set up playful learning experiences with expectations in mind. They spoke of observing learning but also setting up new learning situations with curricular and learning intent:

> It's not just letting them go crazy. It sort of has to have a plan in the back of your head. It has to have a purpose. How are you connecting the dots? [For example] you are still learning about art, because you are making something, a representation, but you are still tying in the curriculum in [art and] social studies, but they are playing. To them they are experimenting.

As part of the staff interview, one member related the same idea of intentionality, by stating:

> Playfulness has a sense that it just happens in the moment, but lots of times it is strategic in how we put it in place. We know the direction we want [students] to move…knowing the curriculum and knowing how to move the students forward at the same time. There is that exploration that is happening but it is also purposeful.

These and other examples indicate that both candidates and staff shared a notion of play in learning situations being not just reflective (backward mapping of curriculum and achievement), but planned (forward mapping of curriculum and

[28] Gray [3], p. 154.

achievement). They gave the sense that play is purposeful and holistic… about *competence* within the task at hand, rather than *competencies* compartmentalized, identified and monitored by more narrow assessment considerations. Yet it is purposeful from the teacher's perspective. Purposefully resourced, initiated and contextualized to follow the interests of the children but also to provide support for the learning that needs to happen for that interest to be realized. It may need to be less purposeful from viewpoint for the students. They are engaged for the intrinsic value of the play itself, but become aware of the learning after the fact.

Candidates in these conversations spoke of play as a very complex but desirable state of mind for learning reminiscent of Gray's characteristics of play. They did not explicitly state the dilemma of finding room for play in an educational environment where curriculum expectations, assessment, shared learning objectives and success criteria are the drivers, but the dissonance was implied. They also suggested some approaches that may allow play to happen within this prescribed curriculum learning environment. These include a process of watching in play action while documenting and interpreting demonstrated curricular knowledge, skills and dispositions – backward mapping. This is followed by purposefully structuring subsequent environments where natural play would emerge that embodies the manifestation of curricula not yet demonstrated, or needing further refinement – forward mapping. This would be done in a manner where the extrinsic learning purpose and assessment criteria are reflected upon after the play, whereas during play the mental rules of the play remain the cognitive focus. In such an environment, curriculum is still the driver. Teachers shift from delivering curriculum to setting up potential environments to *play with* curricular content and watch for the learning that unfolds, and then in response to needs and interests of children, refine that environment to foster new playful learning experiences. In this analysis, Gray's perspectives, varieties and characteristics of play were alluded to in various contexts. There was no explicit reference to *rough and tumble play*, but that would be expected in an academic, professional program.

Up until this point in this chapter, there has been little reference made to Eberle's elements of play, but throughout the discussions *anticipation, surprise, pleasure, understanding, strength, and poise* were clearly evident. There was a sense of *anticipation, surprise*, and *pleasure* expressed quite often about classes using intriguing interactions with materials, problems, creations, ideas and issues. Greater *understanding* of concepts and skills was noted (such as understanding how structures are stable, how to better teach a concept) as well as a *strengthening* or sharpening of skills and abilities as a result of play (such as trying something with students and refining that strategy after reflective input from others). *Poise* was likely the least articulated, but it was implied, and mentioned as part of the intended outcome in the transfer of skills as fluent practice, "Play reserves poise as a reward…increasing dimensions of dignity, grace, composure, ease, wit, fulfillment, and spontaneity."[29] It is after repeated application and use of the skills used in the rehearsal of instructional practices that automaticity, fluidity and spontaneous use, or *poise*, is expressed.

[29] Eberle [1].

Perhaps further exploration of these elements in observing incidents of play might be fruitful for both candidates and staff to further expand on their more intuitive notions of play expressed in the interviews.

If our teacher candidates are to encourage young students to recognise, encourage and set up learning environments where young children experience the various stages or types of play: *unoccupied play; onlooker play; solitary independent play; parallel play; associative play; and cooperative play*, they would benefit from knowing something about them, witnessing them in action, and finding ways to encourage them in practice.[30] For work with older children, it may be helpful to have some operative understanding of the varieties, characteristics and elements of play in order to intentionally use it as an instructional strategy while still maintaining a sense of spontaneity, keeping purposeful orchestration and backward mapping in balance. Candidates would also likely benefit from experiencing play in various forms in their teacher education program, by seeing it in staff interactions among themselves, experiencing it in purposeful interactions with staff members and in classes with each other, while finding ways to play with these notions in schools though engaging in reflective practices on campus. From the comments by staff, candidates and alumni, it is clear that play is both a natural and partially deliberate part of the culture of the education program. Drawing more from some of the literature about play may help to provide conceptual and operative frameworks to make the work more explicit and productive in future.

Some of the dissonances that were expressed dealt mostly with the tension between creating an atmosphere of more open-ended play, while at the same time covering objectives and expectations with assessment items and criteria that are clearly communicated and understood by candidates/students. There is room to further explore how to effectively juggle both of these important elements of subject and program design. By understanding play more fully, it may be used productively in managing change processes, and in the service of program objectives that support elements of play when and where it may be appropriate.

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Part II
Playing with Bodies (of Knowledge)

Chapter 6
(Re)Playing Decolonization Through Pele, Aloha'Oe and Indigenous Knowledge

Umar Keoni Umangay

> *To control the conceptual scheme is thus to command one's world. (D.T. Goldberg [1], p. 9)*

Abstract This chapter explores the phenomenology of play and performance through the lens of decolonization. Play demands a conceptual scheme of the self that is commanding, active and transforming. Through decolonization, play becomes an opportunity for remaking the body in, through and for teacher education in Western, Northern and settler society.

This chapter explores the phenomenology of play and performance through the lens of decolonization. It is a provocation to consider that play[1] demands a conceptual scheme of the self that is commanding, active and transforming. I argue within this schema, sex and violence become part of the Pacific discourse of decolonization. Play then becomes authentic to the activity of decolonization through contrapuntal readings[2] of the body and performance,[3] especially when my body interacts and lives through the diaspora and in the activity of a teacher in Western, Northern and settler society. The phenomenon of traditional Hawaiian *mele*[4] transforms into decolonising activities through which bodies are troubled and reconstituted in specific active practices that generate entertainment and a sense of communal participation. This chapter has the intention to develop an intersection of the posthuman[5] and bodies without organs (BwO)[6] and lines of desire. The chosen

[1] In terms of this chapter, play is defined as the participation, enjoyment, and engagement in [social] imagination.

[2] Said [2], p. 32.

[3] Butler [3], p. 165.

[4] English translation meaning chants.

[5] Braidotti [4].

[6] Deleuze and Guattari [5].

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textual excerpts come from *Unwritten Literature of Hawaii*,[7] and the *mele* of aloha'oe.[8]

6.1 Holo mai Pele as Remaking Bodies

The human is a normative convention[9]
Deleuze and Guattari

My body may have a normative convention as a biological carrier of the genetic codes of my parents and a connector of my mitochondrial DNA (mtDNA) with my *ohana*[10] tree. The notions of genetic relations are crucial in Hawaiian social relations and epistemology, and the importance of familial connection may be normalized and exalted to god-like transcendence through the story, chant and hula from *holo mai Pele*: "Hawaiian drama could lay hold of no worthier theme than that offered by the story of Pelve."[11] This body becomes associated with a greater family that is epic in scope, and there is a euphoric satisfaction of being linked to gods.

There is a sensibility of greatness to the *mele*, "this epic we find the natural and the supernatural, the everyday events of nature and the sublime phenomena of nature's wonderland … a story rich in strong human and deific coloring."[12] This story and hula have an epic construction for Hawaiians. The historical Hawaiian body becomes dialectic of the natural (biological) and the supernatural (gods and goddesses). Therein lays the auto-production of the reactive molar binary[13] of Hawaiian family lines and our gods of being. This relationship continues to have an imposition in our postcolonial rhetoric that posthuman indigenous[14] need to intersect with spirituality.

However, configuring a body to genes and gods needs to be problematized.[15] Reproduction and the body connection to family and to the land are part of the

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[7] Emerson [6], pp. 186–197.

[8] To listen to the *mele* ˆQueen Lili'uokalani – Aloha'Oe, https://www.youtube.com/watch?v=Y1bIxMYPlas and to view the translated lyrics at Lili'uokalani. "Aloha'Oe." HUAPALA Hawaiian Music and Hula Archives. Accessed June 25, 2014. http://www.huapala.org/Aloha/Aloha_Oe.html

[9] Braidotti [4], pp. 28/91.

[10] English translation meaning family.

[11] Emerson [6], p, 136.

[12] Emerson [6], p. 136.

[13] In connection to "lines of desire" where the I interpret indigenous identity moving from the molar formation and engaging towards another play of different set of rules and imaginations. Refer to Deleuze and Guattari [5].

[14] In connection to "primary task for posthuman critical theory therefore is to draw accurate and precise cartographies for these different subject positions as spring-boards toward Posthuman recompositions of a pan-human cosmopolitan bond." Braidotti [4], pp. 38/40.

[15] Refer to Smith's *Everyday World as Problematic*, 1991, as the main text troubles the local experience towards generalized and totalising features of social relations.

Pacific Islander discourse and practice. But the individual body is more than sexual reproduction that "the two sexes … is only the measure of the relationship of sexuality in general."[16] The family genealogy traced through mtDNA and genes limit my body's definition as an indigenous body and there is invitation to reconsider its visibility. This bio-coded body may be commodified, generalized and be subjected to the polity of citizenship for being Hawaiian. The stories of the epic struggles of our gods are part of our cultural molar entity and combined with the rhizomatic events of dancing and chanting, support the development of a self-similarity of what it is to be an indigenous Hawaiian body.

Emerson stated that, "only through the intervention of the benevolent peacemaking god Kane was the order of the world saved from utter ruin."[17] This statement sees the intervention of peacemaking as desirable and the making sense of the chaos coming from Pele and "frenzy of passion" and the "broken faith" of Hi'iaka. A *deus ex machina* of the peacekeeping god treats the instability in order to restore the natural way of things. This is where I see the interconnection of *aloha* spirit as the activity of the god *Kane*. From the deity to our own body as Hawaiian, this format/coding of aloha spirit has become a popular discourse – as a greeting, as a farewell, and as a way of conducting the body in the presence of the family and with tourists. It becomes an anthropocentrism of the apex god and our archetypal Hawaiian activity, and "a result of this state of insecurity, the socially enforced aim is not change, but conservation or survival."[18] This then becomes a possible point of fixation that play and performance come into the being of intermezzo of tradition, subject and object.

This is the moment of peace – not from the god and not from our discourse of aloha. I would argue it is the metaphor of stability and conservation. The survival of indigenous Hawaiians in the settler society of the United States is remade, generalized and stabilized from the conservation of the stories and this particular *mele*. The activity of pacification is reflected in the text: "Paoa, a consummate actor, by his dancing, which has been perpetuated in the hula Pele, and by his skillfully-worded prayer-songs … appeased Pele, but won her."[19] Perhaps, that is one of the reasons of the survival of hula schools and transposition of the narratives from our islands to the mainland. The interplay of gods describing the Hawaiian cosmology is embodied with our own bodies becoming part of the deity constructs. This offers up the possibility of the Hawaiian indigenous as peaceful and sacred. Thus, the story of *holo mai pele* becomes remade and self-similar as the body of Hawaiian selfhood.

I imagine the struggle of our female gods/deific sisters, Pele and Hi'iaka, as played out to this day in the ongoing tension and balance of decolonization forces in the state of Hawaii. These are emanations from the body building of citizenship to indigenous concepts of Hawaii with the tensions and struggles no longer confined to the Hawaiian cosmology/desiring machine so that "the performance of the hula

[16] Deleuze and Guattari [7], p. 430.

[17] Emerson [6], p. 187.

[18] Braidotti [4], Introduction, pp. 20/24.

[19] Emerson [6], p. 195.

Pele, like that of all other plays, was prefaced with prayer and sacrifice."[20] Today, the sacredness of place, citizenship and advanced capitalism become the appendages of an embodied, stable and sacred form of decolonization, and "[t]he subjects treated of were of such dignity and interest as to require no extraneous embellishment."[21] However, in the dialectic, this leads to social practices of marginalisation and ghettoization of Indigenous education as the reactive to the desire that challenge our notions of educational stability. The past, present, and future are shifting localization boundaries that transform Indigenous activity theory. Thus, the posthuman indigenous is not a stable body and our decolonised bodies may have the potential of being decoded as a BwO.[22]

If Pele as body becomes as god-like, as Hawaiian citizen, as female, and as stable force, then her body serves as the invariant[23] and this was emphasised with "the story of Pele dated back of her arrival in this group … From Kahiki came the woman, Pele."[24] This statement supports the connection of the world-origin of femaleness connected to land, and our kinship based along female lines. This is where my analysis returns to mtRNA where genetic coding comes from our mother's lineage. In terms of decolonization, the play of genetic coding alongside the importance of mothers are reincorporated into the Hawaiian indigenous body with our goddess Pele and our acceptance of lineage and of spirituality as defining our citizenship and social order.

The chants in *holo mai Pele* evolves into a form of a serenade and the introduction of our "dome of heaven as a solid structure supported by walls that rested on the earth".[25] The *mele* continues with the description of the valleys and geography with *tabu*[26] structures.[27] This introduces social order through literacy, terminology and relationships for the performers and the listeners. For example, *taro*, ‘*aina*, *piko*, are Hawaiian concepts that relate to the land as bearing people–*taro* represents parents, ‘*aina* represents earth, and *piko* is defined as the umbilical cord. These images and interpretations of Hawaiian cosmology increase the molecular events/rhizomes of Hawaiian-ness, and bring these multiple interpretations to stable standard or molar bodies that are set by our *tabu* and *kapu*.[28] The people and the land are one in the same – the indigenous body is remade as molar whole and thus, provides a chal-

[20] Emerson [6], p. 197.

[21] Emerson [6], p. 187.

[22] This also has resonance to Deleuze-Guattarian molar machines. The decolonised body becomes a whole body of the indigenous formed by the indigenous, rather than the sum of constructed parts from the colonizer.

[23] Perhaps this is a version Deleuze-Guattari's molar body with an invariant indigenous identity as female.

[24] Emerson [6], p. 187.

[25] Emerson [6], p. 196.

[26] English translation for sacred.

[27] Emerson [6], footnotes, p. 197.

[28] English translation for code of conduct.

lenge and warning to settlers that self-determination and archaeology of our society is sensitive to our gods.

Holo mai Pele shares in the violence of oppression, and there is a sense of cathartic cleansing of the body. Individual and collective transformation between our goddesses Hi'iaka and Pele over the love interest in Lohiau involves the active challenge of the distribution of power and the structures of social control. This spiritual interplay of love and suitors support Fanon's statement that "at the level of individuals, violence is a cleansing force. It frees the Indigenous from his inferiority complex and from his despair and inaction; it makes him fearless and restores his self-respect."[29] This intersection of bio-politics with *mele* is a body and part of my understanding and self-construction. It becomes a connection of self with notions of the molar entity of Hawaiian as indigenous citizen.

6.2 *Aloha'oe* as Remaking Bodies

> [I]t adds a political dimensions by setting the framework of recomposition of bodily materiality in directions diametrically opposed to spurious efficiency and ruthless opportunism of advanced capitalism.[30]

The imagination of placing decolonization as the body of indeterminacy and in opposition to the colonizer opens up notions of becoming an indigenous Hawaiian. This section links the BwO as posthuman indigenous. I argue that this is the connection to our indigenous body in its activity to re-assert sovereignty. Using the text from the *mele* Aloha'oe,[31] the lovers Hi'iaka and Lohiau from *holo mai Pele* can be reformatted as the dialectic desires. That is, imagine the dialectic of two bodies: the body of being that of the land, and the other body of leaving the land. In a postcolonial framework: the dialectic desires of embodied sovereignty and the desires of embodied globalized citizen. That is, the previous form of indigenous as molar form offers up to another bodily consideration – that of the indigenous as reactive. If the indigenous may be imagined as BwO, and as a feature of Braidotti's posthuman, then the Hawaiian indigenous endures in our virtual and actual constructs of us.

The previous section engaged the indigenous conceptions of the body as spiritual/deific bodies or a form of (un)body that holds transformative, sacred and guiding values embedded and remaking the indigenous Hawaiian. Building upon that and challenging the body as same or majority, the remaking of decolonization as the self-determining body now involved choice and becoming. The *mele Aloha'Oe* remakes the indigenous: "bringing fresh remembrances of the past … From you, true love shall never depart." The indigenous body is no longer confined to the islands. The phrase notes how memories as histories are present/fresh and that

[29] Fanon [8], p. 94.

[30] Braidotti [4], Chap. 2, pp. 54/74.

[31] For actual words to the mele, refer to Lili'uokalani. "Aloha'Oe." HUAPALA Hawaiian Music and Hula Archives. Accessed June 25, 2014. http://www.huapala.org/Aloha/Aloha_Oe.html.

although the physical body may leave, the notion of love/aloha/peacemaking may not be separated. This is decolonization through a "pan-human cosmopolitan bond"[32] that was initiated by a single body, and yet does not occur in isolation using interconnections of time and space. This does have conditionality unique with a posthuman context because it imagines "transversal inter-connection or an 'assemblage' of human and non-human actors."[33] The play of the indigenous body has become its own metaphysics that claims sovereignty that is not land based and sexuality that is reproductively based.

From *Aloha'Oe*, the phrases of "one fond embrace … until we meet again" and "sip the honey from you lips" are reminiscent of "we always make love with worlds."[34] There is an outward value of love between two beings, but there is potential for metaphor and many beings that interplay the theme of love. The remaking of decolonization through this particular *mele* uses this nomadic and rhizomatic subjectivities and the posthuman condition develop accountability and ethics towards collectivity and communities.

6.3 Indigenous Knowledge (IK) as Remaking Bodies

The *mele* from *Aloha'oe* and *holo mai pele are* not just binding the indigenous body to the love of time, traditions, genealogy and space. It is decolonization where the indigenous Hawaiian bodies are remade in particular ways of rhetorical space of indigenous knowledge. Before colonial/settler contact, the communities of the Hawaiian Islands were independent and sovereign with their own social systems. *Holo mai pele* is representative of the cartography and bio-political archeology of traditional Hawaiian society: "She voyaged north. Her first stop was at the little island of Ka-ula … on Lehua, on Niihau … on to Oahu … journeying east and south … and came to Hawaii … make her home at Kilauea."[35] The expulsion of Pele from the sacred land of her mother and her voyages throughout the Hawaiian archipelago is a narrative of the movement of indigenous Hawaiians and the archeology of the evolution of the *hula*.

Hawaiian indigenous knowledge is reconstructed as the process and product of *mele* and *hula* on the islands with its transitory memberships, and where ownership of one's conception of history, culture and language is "travelling." This form of knowledge is what Braidotti would construct as "an affirmative bond that locates the subject in the flow of relations with multiple others."[36] Let me suggest that the *mele* may be used to differentiate, discriminate and dominate based on real, perceived, and imagined differences among people. This form of knowledge through chants

[32] Braidotti [4], pp. 38/40.

[33] Braidotti [4], pp. 68/91.

[34] Deleuze and Guattari [7], p. 430.

[35] Emerson [6], pp. 188–187.

[36] Braidotti [4], Critical Posthumanism, pp. 78/91.

becomes living in our bodies by physically reproducing it through our voices and through our bodies. It is and will always be an intrinsic part of our identity and part of our oppression and separation from the settlers. This knowledge is neither stable nor conservative, but imagines the dynamic body that is produced and reproduced by the individual and by the collective indigenous community.

With *mele*, I imagine our formation of indigenous knowledge decoded through levels of existence, from the natural environment to social relations to the individual self, and it would be physically experienced through the ritual of day-to-day activities of learning the chant and performing the dance. The protocols of interacting with the natural world are established in *holo mai pele* through demi-gods known *Kumu-kahi*: "capable of various metamorphoses … they were believed to have the power of taking possession of men through spiritual obsession."[37] These bodies were respected and feared in society as our teachers and role-models, and they were bodily sources of unknown (sacred) knowledge. Again, the theme of remaking decolonization as deific appears, but now coming with a sense of wonder due to the unknown. The *Kumu-kahi* would become the embodiment of what that the unknown is to live all aspects of life in respectful harmony. Dei connected this body of indigenous knowledge as decoding:

> a holistic and inclusive form of knowledge in that it encompasses the mental, intellectual, spiritual and physical development of the individual self and the interconnections between the self and society with the Earth. Indigenous knowledge worldwide shares the ideas of a fusion of "native" knowledge and human spirituality, a reverence towards "mother Earth," and human interrelations with one another based on the notions of reciprocity and partnerships.[38]

Thus, decolonization as a body (of knowledge), and in today's context, comes with the phenomenon of shared identity with deity and with sacred knowledge through our chants. It is the play on sexuality that does not stress domination and control. That is, posthuman recomposition of the indigenous involves something greater than changing the social structures, and involving activities that are multidimensional responses to our natural cosmology with internal conceptions of self. Despite the external resemblance of organised religious definitions or epic literature of the settler societies, the notions of *mele* differentiate the indigenous body towards the remaking of one's relationship with nature and with the deific family. Indigenous knowledge survives not due to stability of our ancestors/deity, but a body moving beyond the wonder that is unknown, and instead, living the sacred wonder of what it is to be indigenous Hawaiian.

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[37] Emerson [6], p. 197.

[38] Sefa Dei [9].

6.4 Pausing to Wonder: Remaking Decolonization

Before first contact with European explorers, merchants, missionaries and soldiers, native Hawaiians were achieving their own versions of organised societies. The posthuman indigenous challenge involves the (re)awakening of political, spiritual and social self-determination in regards to indigenous worldviews rather than a reflection of Western and settler interpretation of the indigenous. This opens up the imagination to the third space of postcolonial inquiry – uniquely Hawaiian in context and direction. Decolonization becomes forms of *holo mai Pele* – practices that are self-determining worldview and pedagogy.

Decolonization also forms and reforms the indigenous Hawaiian – it binds relations with family members, elders and community with our gods and social order. This relationship remakes our intermediary ecosystems and bio-political cosmology between schooling, community, and society that cut across time and space. The continuation and survival of Hawaiian worldview may be related to the need for the posthuman to understand the traditional imaginations of our manifested and variable forms of *mele* – past, present and future. Despite two centuries since first contact, total cultural and societal assimilation into the settler's world did not occur. Informal and formal education of our chants/*mele* came from code of conduct, elders, hula masters and the community generations.

The desiring machine as *holo mai Pele* performs as a collective framework that recognises our disparate indigenous bodies beyond Western conceptions of politics, globalism and nation-states. Decolonization is reworked and the bodies are remade through our chants – this notion of Hawaiian order/archaeology does not operate under a discourse of collecting knowledge of "new" worlds, but rather as a localized knowledge that has been (re)worked, (re)produced and (re)evaluated by our bodies performance in our chants and in our dances. On the surface, our play about our gods connects the static and "exotic" representations of Hawaiian peoples, trying to understand their diverse conditions of production, and to incorporate the resulting critical and reflective analysis into strategies and action plans of dealing with active lives in a small space. To be Hawaiian becomes rhizomatic when the chanting brings together the many representations of being indigenous that exist as constructed social facts into our way of living.

The transformational qualities of decolonization is that it is a technique of interpreting the multiple meanings of situations in society, so that it becomes a way of seeing the world turned about for contemplation. I see, hear and feel *aloha'oe* and *holo mai Pele* beyond genre and literature. The posthuman indigenous gains the body, and by reforming the segmented constructions, gains a sensibility of being indigenous Hawaiian. That is, Hawaiians are defined by integration rather than competition between kin groups and between people and the natural world.

I am reminded of Goldberg's suggestion that the challenge is not just to reflect colonising knowledge but to also, "re-present, to intervene in these racialized relations to initiate possibilities of resistance and response."[39] These possibilities are reflected in decolonization. Framed in bio-politics, the indigenous Hawaiian comes

[39] Goldberg [1], p. 13.

with many interpretations and normative conventions. Our interpretation and construction of reality is a complex body itself. The manifested textual and bodily movements may be considered as posthuman[40] indigenous. The textual representation of *mele* is a form of poetry/song that is sometimes connected to the *hula*. When combined, the *mele* and *hula* become a sonic and visual representation of storytelling, histories, politics, love and adventure. It is a bodily creation of making past stories and histories alive. The viewer as subject, whether it is oneself or that of objects, changes with positions (theoretical, temporal, geographical and social) and that the object and moments of pondering are fluid manifestations and transformation.

Decolonization interconnects the individual, community, gods and the cosmos and it changes the body of the indigenous. Undoing assumptions of the settler's construction of the indigenous Hawaiian may be challenged and unmade with BwO and remade as the posthuman. By attributing the posthuman indigenous within BwO, the body resides a molar machine of chants and protocols that stabilize the natural with metaphors, order and analogies. Decolonization becomes a naturalized body and it remakes our source of transformational social power for Hawaiian people. It is illustrated with forceful themes of violence, passion and sadness in our traditional hula like *holo mai Pele*. In modern times, the language and rhetoric of decolonization has become an important signifier that deconstructs and recodes the indigenous Hawaiian culture into a common imagination of posthuman indigenous.

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[40] Adapting and intersecting with posthuman qualitative shift and "what exactly is the basic unit of common reference for our species, our polity and our relationship to other inhabitants of this planet" Braidotti [4], Introduction, Para. 2.

Chapter 7
Pre-service Teachers, Aboriginal Students and the Cross-cultural 'Playing Field': Empowering Futures

Maria Bennet and Bev Moriarty

Abstract Pre-service teachers have an impact on their classrooms. How they manage communication in a cross-cultural space remains a challenge in teacher education. Moving beyond classroom management, this chapter explores how pre-service teacher education candidates understand their subjectivities and impact on indigenous students.

The journey to becoming a teacher is arguably much more complex and complicated than what one might expect at the beginning of a degree programme. Becoming a teacher is not a process of validation. It is not a confirmation of what the pre-service teacher already knew or is able to do before coming to university. Pre-service teacher education is not always a comfortable process. Early in the journey, pre-service teachers begin to develop an awareness and understanding of their own cultural positions and the power and privilege that often accompany those positions. They then must ponder their cultural positioning in postcolonial societies from the viewpoint of the Aboriginal child and of communities that value and engage with other ways of learning. Part of this consciousness involves pre-service teachers learning to appreciate how others see them, this being a necessary pre-requisite practice for being able to understand the children and the cultural practices of the communities in which those children live. These practices need to develop alongside the growing dispositions that enable them to see, value, engage and reciprocate with ways of learning that are different from their own.

We argue that pre-service teachers need to experience a form of disruption or even disequilibrium during their undergraduate journey. This is a necessary pre-requisite practice that helps them to reflect on themselves, their position and power. It is a process of on-going development. As part of the process of empowering the self, pre-service teachers grasp their own historical, social and political positioning

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in relation to Aboriginal people. It is the responsibility of each person to engage through self, peer and community reflection to unpack colonization in the classroom. For example racism, whether overt or covert, affects the nature of cross-cultural relationships.[1] It takes courage to face up to one's own views, particularly when those previously unchallenged views are from the dominant culture. Disequilibrium is a necessary process and a rite of passage, a privileging of the reflection process that allows deep self-examination of core values and principles. The interrogation of one's own subjective principles can then provide space for a more objective examination and valuing of other world views.

Reflection is a multi-layered responsibility. Universities have a responsibility to affect a process of disequilibrium for pre-service teachers that challenges their thinking around previously unquestioned beliefs and practices. Communicating and engaging with the Elders and community is an important component of reflection as this process supports pre-service teachers to understand how their views and positions are perceived and interpreted. As beginning educators, it is critical that this cycle is repeated over time as each new interaction provides opportunity for further reflection and deepening of understanding.

In this chapter, we invoke the phrase 'the playing field' to describe the necessity for open communication and dispositions such as empathy and listening that can lead to altruistic behaviours where teachers work for the good of others. The examination and development of these dispositions must be concurrently supported by both the tertiary institution and the communities in which students engage. Success in this playing field is dependent on active and open communication of all stakeholders. Pre-service teachers must take responsibility for their own cultural learning pathways, moving from passive to active engagement with Aboriginal students, their families and communities. Their beginning engagement in the playing field at tertiary level is part of their journey that demonstrates their willingness to learn, share and negotiate, which are necessary dispositions for creating safe cross-cultural spaces in the playing field.[2]

Pre-service teachers should engage in situational contexts that allow them to interrogate their own positions and power. This interrogation is a necessary condition to enable understanding of the self and the self in relation to others. In the playing field of the culturally-diverse classroom, pre-service teachers may find that their taken-for-granted ways of seeing the world are challenged, particularly by the Aboriginal students whose own world view and upbringing may be in stark contrast to the cultural practices found in white, western classrooms. The journey to becoming a teacher can be conceived as one in which the itinerary has travellers moving back and forth between places where they look alternately at themselves and at the child in the playing field. With each turn the view changes as does the traveller's perspective.

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[1] Australian Government, DEEWR [1].

[2] Bone [2], pp. 125–137.

7.1 Core Principles of the 3 Rs Model of Empowerment

Many pre-service teachers in regional Australia attended school alongside Aboriginal students but often without really knowing them. The binarized experience of race often continues to be played out at the pre-service teacher education level and in later teaching situations unless it can be disrupted and challenged. It is through this disruption that the playing field provides space for dialogue and debate. Individuals can consciously engage in transformative practices that involve deep reflexivity, which supports the individual's capacity to work more meaningfully across the cultural continuum. The preparation of pre-service teachers to work in Aboriginal communities needs to be strategically scaffolded by the university in partnership with the community.[3] These interactions are critical to the development of relationships because they can draw attention to the responsibilities of each of the stakeholders in the playing field. As pre-service teachers develop capacity to understand, value and relate to Aboriginal students they are better positioned to improve their educational outcomes.[4] Strong community partnerships play a critical role in Aboriginal children's outcomes and these can be supported when educators are able to integrate cultural practices into their teaching. To enable this to happen, educators learn how to engage with the principle dynamics of the playing field: relationships, responsibility and reciprocity.

To enable the development of social capital in the shared cross-cultural playing field, pre-service teachers need to understand the nuances of different levels of responsibility required to develop reciprocal relationships with Aboriginal students and their communities. In the first instance, educators who understand how power is constructed, shaped and exercised in Aboriginal communities can consider different ways of positioning themselves as they negotiate entry and their work in this shared space.

The concept of social capital and its impact on developing relationships and community partnerships is often not well understood, even though it is critical to success in the cross-cultural (playing) field of pre-service teachers. Relationships, which are key drivers of social capital, need to be developed over time, through successive experiences that build capacity and subsequently develop trust and respect. Individuals build a shared collective space. Educators understand that this space requires action and activity, not just within the classroom but equally outside, where students and teachers become learners in contexts that are not bound by the abstract knowledge of the bricks and mortar classroom. During these relationship-building opportunities, participants need to know and understand when, how and what types of reciprocal bridging activities will best work to develop social capital. This understanding cannot be learned from a textbook. Relational capacity building, which focuses on developing self-esteem, motivation and hope, must by necessity occur in interactions as a part of real life experiences. For pre-service teachers inexperienced

[3] Bennet and Moriarty [3].

[4] Rowe [4]; Australian Government, DEEWR [5].

in building cross-cultural capital, scaffolded experiences are critical to supporting their own future engagement.[5] All players, including pre-service teachers, have an individual and shared responsibility to negotiate the field and find ways to develop partnerships that are responsive to the needs of the context. While overarching protocols for working with Aboriginal communities have been identified,[6] educators require an awareness of the specific characteristics of particular communities. The success of these partnerships depends on the capacity of educators to adapt these protocols to local contexts.

In this chapter, a guide to the development of partnerships is proposed and explored and then discussed as it applied to a particular situation at one regional Australian university campus where a lecturer and a local Aboriginal community worked together to support a cohort of pre-service teachers through their first experiences at working with Aboriginal students in their community. This support was important partly because these pre-service teachers were not always comfortable and they did not always find the process easy. Further, it was found that unsupported field site experiences have the capacity to lead to a deepening of existing prejudice among pre-service teachers or, if appropriate support is available, to lead to greater cultural understanding as pre-service teachers are supported in their early endeavours in coming to know themselves and their Aboriginal students.[7] It is anticipated that the principles around which the proposed model is built are sufficiently generic to be adaptable and appropriate for other places around Australia but this proposition could be explored further in other contexts. The perceived strengths and limitations of the model will be discussed, while recognising, as found in the research,[8] that pre-service teachers need to be supported through this process on multiple occasions until they gain the confidence and independence to establish and maintain their own relationships with Aboriginal students and their communities.

7.2 The 3 Rs Model of Empowerment

The empowerment model uses a framework of three core guiding principles: relationships, responsibility and reciprocity as a basis for supporting educators to enter into this cross-cultural playing field with Aboriginal students and their families. These core principles form part of a holistic interrelated framework. Bi-directional influences concurrently impacting on the model from multiple standpoints and lenses will variously add complexity to the playing field. As capacity in cultural responsiveness develops, empowerment practices will assist educators to know and demonstrate practices that empathetically engage with the attitudes, values and understanding of Aboriginal students so that we have "engagement with heart as

[5] Bennet and Moriarty [3].

[6] Board of Studies NSW [6].

[7] Garmon [7].

[8] Bennet and Moriarty [3].

well as mind,"[9] resulting in transformative actions that can decolonise past historical practices and thus reshape the cross-cultural playing field space.

In placing relationships as one of the central guiding principles, the model discusses how shifts in the traditionally dominant power bases of educators are necessary to enact an equal playing field that reflects the Aboriginal student's more egalitarian world view. The model provides spaces in this often contested ground for more open dialogue and capacity building by reducing the historical binary power position that has marked relationships between white middle-class educators and Aboriginal students and their families. Using this model educators working towards disengaging the current binary cultural juxtaposition will concurrently need to provide empowerment spaces where the voices of the Aboriginal students and their families can be foregrounded.

Relationships that empower are central guiding tenets of the model. Key principles for empowering relationships include a capacity to bridge, build and maintain cross-cultural connections. Empathetic understanding of cultural practices can provide space in the playing field, a necessary component for conversations to begin. This model empowers educators by supporting them to take on the role suggested in the research literature[10] and to become students of their own students. By becoming learners, educators focus on developing more egalitarian levels of relationships and, for many, this can mean a minimization of the tensions that generally exist in schools between western educators and Aboriginal students, their families and communities.[11]

This idea of teachers becoming students of their own students is explored in the research literature[12] in relation to reciprocity, the third concept in the model. In Frelin's conception of reciprocity, the line between teacher as teacher and learner as learner becomes less distinct when teacher and child learn from each other. Agendas are not always aligned or shared, however, and so reciprocity and conflict are not mutually exclusive. To minimize tensions, to develop more egalitarian relationships with Aboriginal children and their communities and to learn from the children and their community, pre-service teachers need to be able to subdue their own agendas and listen for the agendas of others to emerge. Being willing to learn and to know, as has been theorized,[13] means that practice does not necessarily lead to learning. To develop meaningful, reciprocal relationships in the playing field that bring together pre-service teachers from the dominant, white culture and Aboriginal children from their community, pre-service teachers need to have a willingness to learn and a willingness to be guided. They need to know that learning in this playing field will be 'messy' and will take time. The responsibility for their own deepening reflexivity falls on their shoulders, as scaffolded university experiences will only take them part of the way on this journey across the playing field.

[9] Perso [8], p. 3.

[10] Perso [8].

[11] Partington [9].

[12] Frelin [10].

[13] Frelin [10].

In order to engage with Aboriginal students and their families, educators are most effectively placed when stepping back from their dominant power base and reversing this role to become learners. Unlike Western linear learning that is measured in starting and end points, learning for Aboriginal students is based on ongoing life-long learning opportunities that are connected with their past, present and future, interlinked through law and lore to land and spirituality. The linear process of western knowledge systems, the sharing and contestations of knowledge is markedly different from the cyclical system of Aboriginal culture and ways of doing.[14] Players in the field have a responsibility to understand overt as well as covert principles governing the position and enactment of each of these knowledge systems. These knowledge systems need to be acknowledged and understood and the playing field requires an open space for communication and understanding to develop. Developing dispositions that engage with culturally appropriate practices that build learning partnerships demonstrate from a pre-service teacher's perspective a willingness to recognise, value and connect with other learning systems. This disposition to learn, share and negotiate across this playing space provides opportunity to empower stakeholders.[15] Educators who can develop capacity to understand, value and engage with other cultural epistemes in this cross-cultural playing field can then communicate through their actions dispositions of openness and respect.[16] This practice is a critical aspect in relationship building as it demonstrates empathetic recognition of and for the other culture and the individuals involved.

It is important to understand the knowledge system of the Aboriginal child. This cultural history shapes his or her identity.[17] This identity may become contested if educators neglect to understand how Aboriginal students are positioned by their own culture and how this impacts on them in an education system that is dominated by western ideology and practices.

For the Aboriginal child, the intersection of Aboriginal and western practices can result in a complex and confusing world. This confusion can result in poor identity formation and lack of connection to school, making the playing field a 'messy' place. There are two conditions that can impact on this situation. First, educators may not have developed sufficient relationship credits over time with students, their families and communities, meaning that they are less in tune with the culture and expectations that Aboriginal students bring to the learning environment. For example, if the child's own culture is not valued and supported in the learning process, then Aboriginal students, like students from other cultures that are dissimilar to western beliefs and practices, will find it increasingly difficult to bridge and then connect with someone else's world view. This position can be magnified if educators' relationships with Aboriginal students are surface relationships that occur within the confines of the education system. Aboriginal students must find this singular relationship puzzling, as it is in stark contrast to their own holistic kin structure

[14] Australian Government, DEEWR [1].

[15] Bone [2].

[16] Harrison [11].

[17] Department of Education and Training [12].

where real life connections with others are critically important. The second condition impacting on the messiness of the playing field relates to how well Aboriginal culture and world views are valued, validated and practised as part of everyday teaching and learning. This point emphasises the two other interactive elements of the model: responsibility and reciprocity. These elements focus educators’ work on the importance of knowing and understanding the community. By necessity, interacting with others involves a level of reciprocity. Different cultures have expectations of how this should be enacted. It is thus the responsibility of pre-service teachers to learn how to connect and engage with others, in this instance the Aboriginal child and community, and to ensure that this engagement continues as part of their lifelong learning.

Simply put, Aboriginal children connect to learning if their culture is valued and celebrated. This means that teachers need to take responsibility for developing knowledge and understanding of how to support a learning environment where children from different backgrounds can connect and learn effectively. To achieve such a learning environment, educators learn and engage with reciprocal behaviours that are culturally appropriate. This model, which focuses on interactive engagement across its key principles of relationships, responsibility and reciprocity, can support practices to smooth the playing field. Educators require expertise in how the identity of Aboriginal children is socially constructed and framed.[18] The construction of these identities can be diametrically opposed to those of white, middle-class educators and it is this ideological distance that can generate a ‘messy’ playing field, creating a contested space. Using the model described in this chapter, pre-service teachers can be scaffolded to negotiate differences in world views and subsequent issues of power.

Part of the process of supporting pre-service teachers to reflect upon their position of power, can be achieved by taking them into the field where they can be mentored as they practice engaging with Aboriginal students and their families. Scaffolded, safe playing fields are important and tertiary institutions must play an active role in creating these spaces. Most pre-service teachers experience an immediate sense of disequilibrium resulting from being on Aboriginal turf and this sense of disequilibrium, although quite confronting for some students, can assist others to understand first-hand the effects of power bases in relation to themselves and others. This stage of disequilibrium is viewed as a necessary part of the process in which educators engage. This contested space offers opportunity for deep reflexivity which, if successfully negotiated, can lead to transformative change.

The two other empowering core tenets of this model – responsibility and reciprocity – play critical and interrelated roles in successful transformative change. Like the butterfly that must emerge from its chrysalis stage, so must beginning educators pass through ‘rites of passage.’ For educators, their chrysalis stage is the successful negotiation of this contested ground with its different world views and power bases. Pre-service teachers negotiate their own way in developing relationships with Indigenous students, their families and community. White, mainly middle

[18] Purdie et al. [13].

class pre-service teachers educated in white western schools may experience problems understanding the complexity of Indigenous cultures, knowledge and identities. These world views, framed from a mainly western perspective, represent an ideological framework removed from that of the Aboriginal child. Participants have specific roles and responsibilities to each other, and each needs to negotiate the space in which this occurs for the benefit of the wider cross-cultural community.

This model highlights how pre-service teachers need to take time to work at developing relationships with Indigenous students as trust, mutual respect and inclusiveness are important components of relationship building that depend on multiple positive interactions over time.[19] Forming the relationship requires pre-service teachers to have knowledge of and engagement with cultural competence practices and an ability to suspend their own world-views and practices to provide space and a place for other voices, beliefs and practices. This area is a complex part of the playing field for pre-service teachers' understanding the hegemonic power of whiteness that was identified as a potential barrier to effective cross-cultural engagement.[20] Power is shaped by language. When understanding relationships with Indigenous students, the role of power has particular implications as it can serve to exclude particular individuals and groups. Inclusiveness can be promoted when pre-service teachers practise culturally competent forms of engagement.

The power base that individuals use in communication sends out unintended messages. Pre-service teacher awareness of the impact of verbal and non-verbal communication on relationship building is an important asset in the cross-cultural space. As these relationships are extended into classrooms, the role of language becomes increasingly important. Educators interrogate visible and invisible white inter-subjectivities and how they can leak into relationships and affect classroom engagement. The resistance that sometimes results from these complex practices is minimized by educators using the proposed model.

Pre-service teachers who rely on the dominant position of the teacher will likely compromise their relationships with Indigenous students who are raised in more egalitarian cultures.[21] Forming relationships requires skill and emotional intelligence to bridge cross-cultural space. Culturally competent individuals have open-dispositions, show warmth and are respectful of others' backgrounds, lives and aspirations.[22] They are able to allow Aboriginal students to be Aboriginal without assimilating or shaping them into white ways. What the pre-service teachers bring to the relationship is an important factor as experiences shaped by the playing field affect opportunities to foster current and future relationships. The quality of the relationships is affected by good communication, genuine negotiation and consistency in interactions.[23]

[19] Australian Government, DEEWR [14].

[20] Hickling-Hudson [15].

[21] Partington [9].

[22] Australian Government DEEWR [14].

[23] Hickling-Hudson [15].

Responsibility, one of the core principles driving the model, ensures that pre-service teachers develop core dispositions and wisdom in the development of their relationships with Aboriginal children and their community. In a cross-cultural playing field, all players need to engage actively. For all players, there is individual, group and cross-cultural responsibility. Pre-service teachers enact roles that demonstrate dispositions of wisdom that celebrate Aboriginal identity, ideologies, beliefs and practices, while concurrently suspending their own beliefs to provide space in the playing field for the verification and celebration of others' views. Higher order, altruistic responses such as these require individuals to develop and practice dispositions of openness and acceptance. Principles of empathetic communication enable negotiation of the messy, contested spaces supporting practices that validate alternate views.

In order to take responsibility in the playing field, participants recognise the hidden value of downtime, moments when parties engage with one another in less contested spaces. This time can provide space where individuals can be valued for who they are as people and their strengths, beliefs and practices celebrated. The ability to reflect deeply requires multiple experiences over time. Responsibility for this reflection should not be left to chance as conversations and examinations of self should be engaged in with others. Reflection is a valuable tool for pre-service teachers and engagement with this process across each of the model's core driving principles of relationships, responsibility and reciprocity will empower pre-service teachers to negotiate the playing field.

7.3 Future Applications of the Model

Justifications for models such as the present one are based on international and national literature that highlights the presence of cultural teacher-student mismatches[24] and their effects on teacher behaviours. Canadian research with Aboriginal students[25] explains how teachers' educational decisions impact on Aboriginal learning and life opportunities. Their work highlights how educators challenge their own position and power. Australian research[26] reflects the framework for the 3 Rs Model of Empowerment. This model is based on the core driving principles of relationships, responsibility and reciprocity that were found in previous Australian research but not specifically combined into an integrated approach.

The core principles work individually and collectively to provide a framework that may be broad enough to apply in different contexts. We have talked about the responsibilities that tertiary institutions and pre-service teachers have for working with Aboriginal communities and in preparing for this work. How that work is enacted will depend not only the capacity of the university to mentor and support

[24] Reiter and Davis [16].

[25] Riley and Ungerleider [17].

[26] Bennet and Moriarty [3].

pre-service teachers in connecting with communities but also on pre-service teachers' willingness to challenge the assumptions about their own culture that they bring to the situation. All players therefore have responsibility for reciprocal actions that will promote positive relationships in the cross-cultural playing field.

It is hard to disentangle the core principles from each other because they are so interdependent. When talking about one principle, underneath it sits the influence of the others, as shown on the Fig. 1.1. While we argue that the model and its core principles appear to reflect the success of interactions in the particular context in which our work occurs. We also argue that it is likely that the model in general might apply to other contexts. We acknowledge that a limitation of the model is that the specific application depends largely on the players understanding the characteristics of the particular community where they work.

The representation of the model uses bold script to identify the prominence of each of the core principles and their inter-relatedness with the other principles represented in shadow script within and across the playing field. The centrality of the question mark is designed to focus attention on the interrogation of the self in relation to the principles. It also serves as a reminder to those engaged in intercultural practice of the need to balance the three core areas of the model in a spirit of openness and empathy. The challenge is for practitioners and researchers to approach their work in the playing field thoughtfully and with deliberation. The 3 Rs Empowerment Model provides starting points for conversations around how this could be done. Future refinement of the model or even the emergence of a new

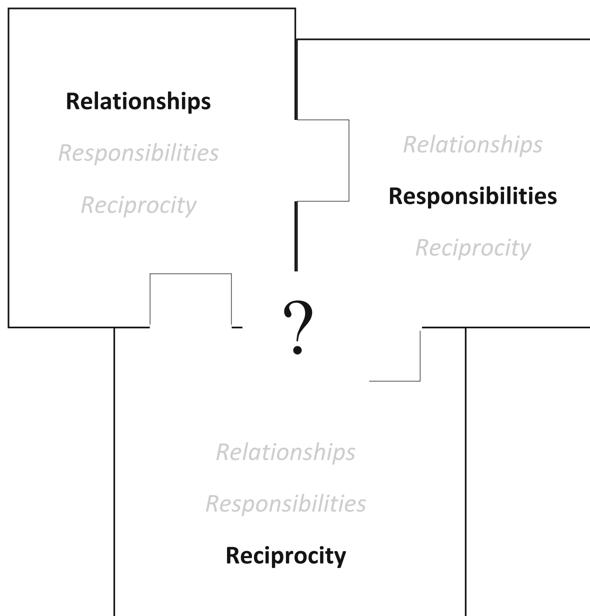

Fig. 1.1 3 Rs model of empowerment

model that represents what is discovered about best practice in intercultural engagement could result from this beginning.

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Chapter 8
From Local to Global: International Initiatives in School Leadership

Zeffie Nicholas and Erica van Roosmalen

Abstract The topic of leadership in teacher education is an intricate and complex subject. Often school leadership is parochial, mired in local policies and agendas. This chapter investigates a new international model for school leadership education.

Charles Sturt University (CSU) established its Ontario campus in Burlington in 2005. The then Dean of the Faculty of Education, Professor Bob Meyenn, had successfully put forward an application to the Ontario Government to have a pre-service elementary teacher training program offered out of the Burlington Campus. This initial work laid the foundations for CSU to have a physical 'footprint' in the province, and possibly provide other education program offerings. The elementary pre-service teacher training program in Burlington was highly regarded and had been assessed and approved by the Postsecondary Education Quality Assessment Board (PEQAB) and had also earned high praise from Ontario schools who had the opportunity to be involved in both the training and the employment of some of the graduates.

A Masters' Degree seemed a logical development. Given the increasing number of Canadian teachers and school administrators enrolling in the CSU Distance Education Masters', at the time distance education (DE) was not that common in Canada, therefore CSU had a niche. Additionally, the education systems had a lot in common, and Canadian and Australian teachers enjoyed interacting and learning from one another – in essence, playing internationally. It became clear that the DE mode was attractive, not just for isolated teachers but for those who, frankly, preferred to learn in their time at their convenience. At the same time, the Ontario Principals' Council (OPC) was searching for a close link with a university that would create and design a Masters' level program which focused on School Leadership with an International Education perspective, as well as recognise

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students' professional prior learning within the degree. The program received Ministerial Consent through PEQAB on April 17 2007.

The resulting MIEd (SchlLship) program developed in consultation with the Ontario Principals' Council (OPC), combines strong international and local perspectives, practices and resources in an integrated graduate program of coursework and practical experience. The University formalized a similar partnership with the Catholic Principals' Council of Ontario (CPCO) in May, 2011. These partnerships have been critical in expanding electives, ongoing evaluations and continual improvement of the program. The program is geared towards aspiring and practising school leaders and adopts a systematic approach to the study of School Leadership in the contexts of national and international professional practice. The MIEd (SchlLship) is framed by five dimensions: scholarly, practical, collaborative, global, and ethical. The international perspective builds student capacity to better understand and respond to local policy and practice. Similarly, students have the opportunity to reflect upon and sometimes act on international initiatives, for example, working with humanitarian groups to facilitate change in the areas of schooling and education.

This chapter is composed of vignettes from the MIEd (SchlLship) team about their experiences being a part of the program and what it has meant for them to be a member of a group that teaches in a degree that has as one of its major tenets the concept of internationalization, but also in regards to teaching international students, and being a part of an international team. The vignettes are presented to highlight the collaboration and partnerships necessary to successfully develop and sustain the program objectives, and the development and teaching of the subjects from an international perspective with international students and staff.

8.1 Playing Internationally with Alan Laughlin: Collaboration and Partnership for Success

I have been fortunate to have been involved in the earliest days of the establishment of the MIEd (SchlLship). For me this was a very exciting and rewarding experience. It has broadened my perspectives dramatically and allowed me to make connections and friendships with a wide group of people both within the University and in other countries, particularly Canada.

I had been a teacher in the NSW (Australia) Department of Education and worked my way through to become the Deputy Director General (Schools). My experiences were wonderful and gave me an opportunity to hold most positions at some time within this large organisation. Most of my higher degree work was in Educational Administration. I was convinced by everything I had seen and experienced that the role of principal was at the centre of a school's capacity to build student outcomes. Certainly the teacher in the individual classroom is the key element in that environment, but for the organisation we call a school, it is always the principal that makes or breaks the organisation.

After I formally retired, I worked part time in a number of tertiary institutions and educational organisations. In 2005, I was asked by the Dean of the CSU Faculty of Education to help in the establishment of a Masters' leadership program at the Burlington campus. Given my strong commitment to the critical role of the principal this was an opportunity I was pleased to accept. It would also give me a good look at how Ontario developed and supported its principals and how we could learn from one another. Although I had certainly had a broad experience in New South Wales, I had not worked in other countries' educational systems. I came to believe that this international working experience would be an enriching and hugely beneficial experience for any senior education officer in any jurisdiction.

In meeting with officers of the OPC I was very impressed by the quality of their programs and the program's level of independence. I was particularly taken by the selection process for principals. Ontario teachers are well aware of the Principal Qualification Program (PQP), but many from other Provinces or countries may not be. To even apply to become a principal, teachers had to successfully complete the two PQPs, each about a semester in length. We had a good look at the PQPs run by the OPC and could clearly see the overlap in these with some of our formal Masters' leadership work. Here was the potential to recognise these, with some adjustment, for prior professional learning credit into a Masters. This was clearly a point of leverage for marketing a new degree. The OPC were, as always, flexible in their approach and willing to work with us on matters of quality, emphasis and assessment. I had the opportunity to attend a number of weekend seminars as part of PQPs operating at that time, to meet many of the teachers and executive, and to look at how these programs ran 'on the ground'. These were all highly impressive.

To progress the partnership between the OPC and Charles Sturt University, we held a number of full day seminars in Toronto and mapped out elements of an ideal Masters' program. We determined that the degree had to emphasise leadership, but more importantly had to adopt an overtly international emphasis. We felt that educators across the world had to learn from one another and that the relationship developing between Canadian and Australian educators was just the beginning of a wider and deeper international engagement. There was a desire by many leaders and those aspiring to leadership positions to have the opportunity to be part of a professional community of learners, committed to developing their leadership skills through interaction around leadership issues that were common to all. The degree had to be through Online Distance Education to truly tap into an international clientele. How else could this be done effectively, if we really had in mind a global student body? It was and is an excellent adult learning model to meet the pressures that many experience including; remoteness, difficulty with city travel and time constraints around work-life balance.

The OPC for its part readily agreed to modify the Principal Qualification Program to gain full accreditation as part of a Masters' Degree. This resulted in the development of the Masters' Dimension to the PQPs and allowed for a 2 credit (from 10) credit in what we now referred to as the Masters of International Education (School Leadership). This partnership between CSU and the OPC, although not unique, was certainly unusual. It allowed the OPC to run specific programs (the PQPs) and

provided the appropriate curriculum was taught by accredited lecturers, to result in either a one or two prior credit allocation to our Masters' Degree, the MIEd (Leadership). This gave the course run by OPC considerable status and also was of immense benefit to the budding leaders both financially and in the relevance of their study.

We had the beginnings of a conceptual framework, potential structure, the marketing leverage and the partnership within Ontario. In further developing the conceptual framework there was clear agreement between the OPC and CSU that the program had to embed study to reflect real life experiences. Principals and educational leaders need current research and thinking. We wanted the program to be scholarly but practical, international in its perspective and focused on school leadership, and further we were committed to building socially and ethically responsible leaders for the future. These elements were used to further build the conceptual framework through a unique collaboration of practitioners (the OPC) and those with a more academic/research focus (CSU).

The next step was accreditation through the Ministry so that this could become a degree situated in Ontario. The accreditation process meant a review by an external panel. This occurred in 2007 after the submission by CSU of extensive documentation and planning. I have taught now in the MIEd (SchlLship) program since its inception through the *Leading Learning* subject. I have learnt as much as I have taught. The quality of the candidates has been extremely high with many principals as well as prospective principals in the cohorts. The study and development of understanding of Educational Leadership has been the key. Our assessment items have always been practical and highly relevant to practising teachers and school executive. The subject has been about making good leaders better through practical activities and reflection. It has been a joy to see the growth in numbers from the Middle East, Asia and the Pacific as well as from Canada, particularly Ontario, and all states of Australia. The interaction between students from these diverse places has been part of the real international experience. This program is still in its infancy but it has had a most promising start and with a process of continuous improvement and review will continue to contribute to improvements in what I have always felt a critical issue, quality educational leadership.

8.2 Playing Internationally with Judy Langsner: Subject Development

What do you get when you mix a PhD, a practitioner and a retired academic? You get a great subject development team with different views, different backgrounds and one purpose – to create an exciting, engaging online subject in the area of leading professional learning organisations. Now add working in three different time zones and some interesting language barriers, and you have the challenge of developing subjects with and for an international audience. Coming from different backgrounds allows each person to bring a unique lens to subject development. Working

through some of these differences led to many spirited discussions via Skype and Adobe Connect – through compromise, the benefits outweighed the challenges.

The time zone challenges will always be an issue in international education – whether it is subject development or students engaged from around the globe. The easiest way to overcome this challenge is to use technology – where one person working at night can chat live to someone working early the next morning. Another option is recording information and explanations on Adobe Connect so that other contributors can review it at their leisure. This is also a great strategy to use within your subject as it allows students to access information at their convenience.

Once we resolved these logistics, we were able to concentrate on subject development. We used a backwards design process – it is important to ensure that assessments are universally accessible and accessible universally, and always plan with the end in mind.[1] One strategy to ensure the assessments are universally accessible is to incorporate flexible and differentiated options. Instead of a scholarly paper, you could offer the option of presenting a PowerPoint, posting on YouTube or submitting an mp3 recording. In this way, you also make the many assessments submitted from around the globe universally accessible and universally understood.

Once your assessments are in good shape, you can look at the remainder of the subject. Do your readings and websites reflect a global viewpoint? Or, are they predominantly Australian? Or North American? You also need to consciously build in an awareness of what is happening in education on the global stage. It is sometimes difficult to find refereed papers from around the globe, but it is critical that we show understanding and acceptance of multiple viewpoints. This was brought home to me when reading a paper about leadership in the Solomon Islands. In the paper, principals expressed concern about a lack of preparation, a lack of ongoing professional development, the responsibility for all things operational and many other concerns. This spoke to me of the need to understand that not all principals can be instructional leaders (a particular focus in Ontario) – even if they want to be – and our subjects need to address the learning needs of all of our students.

Working with different people from different backgrounds – not to mention different continents – allowed us to reinforce good practices and celebrate not only our differences but differences in our students as well. In the end, developing subjects which appeal to, engage, and speak to a worldwide audience is a critical component of playing internationally.

8.3 Playing Internationally with Chris Tome: Learning from Each Other

In 2012, I was in my thirty-seventh, and final, year of full-time work in the public school system of New South Wales, Australia. I had completed almost 5 years as the principal of a K – 12 school of 350 students, the only school in a small, remote and

[1] Biggs [1], pp. 165–203.

isolated opal-mining town in the north-west of the state. I had a sense of some satisfaction in the job I was doing as school principal. The school, in one of the poorest communities in the state, had been very dysfunctional when I'd first started as principal. By 2012 things had turned around considerably. There was a much greater sense of cohesiveness among the school staff, and within the wider school community. Literacy and numeracy results had been generally improving, with particularly strong growth figures among Aboriginal students. Our Year 12 students were increasingly being accepted into university courses.

A particularly gratifying episode was the inclusion of the school in the study *What works. The works program. Success in remote schools: a research study of eleven improving remote schools*.[2] For me, the particularly rewarding, and reaffirming, aspect of the study was its unambiguous statement, "it is clearly evident that school leadership, especially that of the principal, performs a critical role in the improving results."[3] Despite these positive achievements, it was still a very 'difficult' school to lead, with a range of complex and immediate issues. It was not a school that permitted complacency or resting on laurels. Sometimes it was very difficult to see the 'big picture' achievements, because of the immediacy and the complexity of pressing day-to-day issues.

From this experience, I commenced masters teaching. The group for Semester 2 of 2012 in the Advanced School Leadership subject consisted of twelve students; all Canadian, and all but one working in an Ontario public school. Our particular subject had a very strong practical emphasis, employing the principles of Action Research to find solutions to real-world, everyday problems, being faced by our students in their day-to-day working lives as school leaders. Some of our students were already school principals; others were vice-principals and departmental heads, aspiring to be principals.

I began the process of getting to know the students and the contexts of their work through reading their postings on the subject blog site, as well as their discussions of the subject forum site. But it wasn't until I had to read and assess their literature review assignments that I gained more meaningful insights into their professional lives. I discovered that my students were a group of committed and compassionate, hard-working and time-poor individuals. They worked mainly in urban settings, but in areas of significant social deprivation. They were strongly committed to social justice, and to the underlying egalitarian principles of public education. For some of them, it was obvious, that they were returning to study after a significant gap, and that the whole business of reading about, thinking about, and writing about, the professional issues they confronted on a daily basis, was not a particularly easy task. They clearly wanted to succeed in their studies, and, at the same time, use the information gained from their studies as a means of achieving success in their workplaces. They were motivated to succeed.

Perhaps the most remarkable aspect of this experience was that those school leaders, in the setting of urban public schools in Ontario, Canada, were confronting

[2] National Curriculum Services [2].

[3] National Curriculum Services [2], p. 5.

exactly the same issues that I was managing in the context of a school in an isolated, rural setting in New South Wales, Australia. We, jointly, were faced with issues of engagement and attendance, of curriculum relevance, of attracting appropriate teaching and non-teaching staff to schools. There was uncertainty about future governance arrangements. There was uncertainty about future funding arrangements. Resources were scarce. There was uncertainty about post-school destinations for students. On a couple of occasions, I was overjoyed to read in my students' work, ideas for solutions to problems I was facing in my work. Similarly, I was able to suggest to some of the students ideas that I had been able to successfully put into place in a very different school setting.

For me, the happiness extended to the sense of 'commonality' I experienced because of my interactions with these school leaders, working in a completely different setting to my setting. The fact that they were confronting essentially the same issues in Ontario that were being faced in New South Wales made my involvement even more satisfying. Like good teaching everywhere, I, as the teacher, learned from my students. I trust they also learned, at least a little bit, from me.

8.4 Playing Internationally with Jackie Button: The Online Classroom

As a former high school classroom teacher and administrator, and current university instructor, nothing is more important to me than ensuring a welcoming and inclusive classroom for my students. I have always relied on my energy and enthusiasm for the subject, my personal interactions with students, and an investment in collaborative interaction to ensure student success in my face-to-face classroom. The challenge for me, in facilitating online subjects in the Masters of International Education (School Leadership) at Charles Sturt University, was trying to determine how to develop that sense of inclusion in the online environment with internationally educated students.

The access to online tertiary degrees has provided opportunities for new and complex academic interactions on a global scale and online instructors are required to facilitate and develop subjects to support the growing trend of internationalization in academia. In 'Leading Educational Change', I have students participating in the degree from multiple geographical locations, each of whom bring diverse and enriching experiences to the international classroom environment. As a result, I have had to adjust my own professional practice as well as re-create the online environment to ensure the online classroom is an inclusive and enriching space from which to learn.

Beyond providing a welcoming and organised online space, a great deal of time and energy is spent laying the groundwork for the successful completion of Leading Educational Change. Emphasis is placed on the importance of being an active participant in the learning process, which can differ significantly from a classroom

focused on direct instruction. In order to underscore the importance of this active role, students are responsible for participating in six evaluated asynchronous online discussions. This is a move away from a more traditional approach of simply encouraging discussion to a more collaborative and rigorous approach to constructivist learning, where students are held accountable for readings, learning, and discourse not necessarily achieved when discussion is seen as optional. Additionally, the frequent feedback to students, required when using such a model, allows students to gauge their scholarly work and make adjustments to grading expectations in a way that the submission of two major papers cannot accommodate. Furthermore, the additional feedback allows the international student population and opportunity to adjust to new evaluative expectations of the subject, which is an essential component of developing agency, advocacy, and confidence in their work.

Laying the groundwork for success in the international online classroom also means paying close attention to the use of language in assignments, feedback, and discussions. Language impacts our confidence, willingness, and our ability to learn.[4] When students from various language, cultural, professional, and educational backgrounds convene in the online classroom, barriers to communication may follow. Clarifying potential language barriers and providing a forum to seek clarification, either via email or on the discussion board, is an essential element of successful communication and inclusion in the learning environment. Additionally, the use of audio/video recordings to enhance reading materials and written feedback provides students with the technology-rich communication necessary to engage in learning.

In my online experiences as a student and an instructor, reflective practice has been an integral part of my teaching and learning. In the online subjects I facilitate, reflective journaling is encouraged to document challenges, questions and the evolving thought processes of learning.[5] Although the reflective journal is not used in the determination of grades, I use the concept of reflection to initiate online discussion. For example, I might ask students to think about certain issues and note them in their journals one week, and then request that they use that reflection as a basis for their formal collaborative discussion the following week. Reflective journaling is a powerful and transformational practice, which allows international online learners to reflect on the process, theory, and construction of learning in a meaningful, relevant, and personal way,[6] while developing a critical consciousness of issues beyond their borders.[7]

The international online classroom can be a challenging place to navigate as both an instructor and a student. However, if we consider the principles of effective traditional classroom design, including fostering an inclusive environment, using strategies for effective communication, and engaging in collaborative and reflective practice, the online classroom can provide a rich and meaningful learning environment for students across the globe.

[4] Ramburuth and Tani [3].

[5] Stevens and Cooper [4].

[6] Cooper [5], pp. 96–112.

[7] Braa and Callero [6].

8.5 Playing Internationally with Bev Moriarty: Linking Research to Practice

The students enrolled in the MIEd (SchlLship) are professionals and highly successful in their fields, mostly living in Canada. They are joined by many other students from around the world when they complete their *Introduction to Educational Research* subject. This introductory subject requires students to learn and play internationally in ways that are often quite different from how they learned as undergraduates. Rather than being provided with questions that they must answer they learn how to construct their own research questions. Using their professional interests and contexts to situate their learning is one way of enabling international students to play with alternative ways of learning and thinking while traversing this difficult territory. This approach reflects the learning objective of the course that requires issues examined by students to be current and important to them as educational leaders or aspiring educational leaders, representing in total a range of international perspectives.

In the subject *Introduction to Educational Research* I believe that it is important for the teacher to take responsibility for leading the students through the process rather than leaving the students to "crack the teacher's code." This approach is initiated in the design of the subject by asking what students need to know, to understand and to be able do in order to meet the outcomes of the subject. Backward mapping is used to design tasks to achieve the subject outcomes. Each task is divided into steps and at each step students are guided through what they need to do in order to achieve what the step is asking them to do.

Talking with students at the start of the session about how the subject is approached differently from most of their previous subjects, what responsibilities will be undertaken by the teacher in leading and supporting students in their learning and what students need to do is paramount because of the requirement for students to develop such different ways of thinking. It is hoped that students who complete an *Introduction to Educational Research* will be able to think more deeply about their own professional contexts, about how they learn and about how new knowledge is created in the field in which they work.

8.6 Playing Internationally with Paul Grover: International Perspectives in Educational Policy

The experience of working with a group of international students in the area of education policy is both challenging and exciting. Through the subject, 'Education Policy Analysis', we draw upon the educational context in which we live and work to explore issues about policy development, the intended and unintended effects of education policy implementation and the influence of theories of policy development upon schools, teachers and communities.

Many government policies in the area of school education have a strangely parallel existence – policies around school autonomy and accountability, standardized testing, teaching standards, curriculum reform and professional accountability have unnervingly common features in very different countries. Students share insights and reflections about education policy initiatives, policy outcomes, policy language and policy problems, and very quickly engage in a highly interactive and stimulating dialogue to compare and contrast major policy initiatives from their own country with those from quite different areas of the world. Stepping outside your own educational world, and then looking back from another country's perspective, is a very powerful tool in evaluating the intent and impact of local education policy.

Students undertake this subject from across the full spectrum of education backgrounds – senior education administrators and bureaucrats, regional education directors, school principals in large high schools or small primary schools, department heads with significant school policy responsibilities, senior classroom teachers and teachers quite new to the world of schools and teaching. This richly diverse range of experience drawn from around the world brings unique opportunities for deeply reflective thinking and exploratory research as we use online forums and chat tools to investigate how education policy has been shaped by local political and educational contexts, and the way international trends have influenced education policy development in different locations and circumstances.

This rich conversation is facilitated by contemporary online articles, video clips and media reporting that informs and provokes comparisons and evaluations of education policy, including the values and beliefs that underpin them, allowing us to critique the purposes and processes of education policy development across the world. Students regularly comment that investigating education policy initiatives and education political agendas in different countries provides valuable insights into the education policy developments of their own province, state or district. Without this international perspective, the intensity and richness of our discussion and comparative analysis would be profoundly diminished. Students who have worked in education systems in different countries also bring perspectives that enrich this international conversation, enhancing their own and others' education policy perspectives.

Our digital dialogue is facilitated through weekly forum responses and reflections that focus on the online readings and resources. The impacts of globalization, the knowledge economy, the marketization of education, media influences, education bureaucracies and political policies are included in our online discussion of education policy in the contemporary world. Students have commented on the value of multiple perspectives in stimulating their own thinking, and the subtle ways in which education policy shapes classroom practice in positive (and sometimes negative) ways. The ways in which some bureaucrats, politicians and, sadly, some educators, use policy analysis tools in a self-justifying way, are highlighted through these international comparisons across education jurisdictions and political systems. The influence of power and authority in shaping education policy, and the role of knowledge and expertise in developing education policy, are features of the discussion where international comparisons richly contribute. It is always interesting to observe students exploring and critiquing different tools of policy analysis, while

investigating the ways different tools are used – rightly or wrongly – to justify, criticize, defend, explain or condemn education policies in their own schools and districts. The role of ideology in shaping and implementing education policy is particularly evident when exploring international comparisons and contexts.

Through an international perspective we enhance our capacity to share insights on education policy, to develop a more critical approach within our own education contexts, and to promote a more positive approach to providing better outcomes in our schools through effective policy analysis processes. We can encourage students to look more broadly at education policy issues and their practical implementation, to be aware of the hidden forces and competing interests that shape decision-making, and to investigate the policies within their own education context in a more informed and critically insightful way. The many layers that shape and impact education policy are highlighted through international comparisons – across diverse political, economic, religious, social and educational fields. If our goal is a more just, equitable and civil society then sharing education policy perspectives across the globe powerfully contributes to achieving that goal.

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The aim of this chapter was to highlight and explore some of the opportunities and challenges of staff in regards to being a part of a program that has an intentional focus on *international* – by name and practice. Bringing together a group of people with quite diverse backgrounds we believe created a very unique work/practice environment. Their reflections have been about the origins of the program, the development of subjects, the commonalities and differences of schools, school leaders and students learning together within the international online classroom.

Playing internationally, the MIEd (SchlLship) Faculty Team regularly meets to critique and reflect on teaching and learning practices and principles of internationalization across continents and time zones, using different media to connect and learn from each other. The workings of the MIEd (SchlLship) Faculty Team are collaborative and intentionally geared towards efforts which build and create knowledge within ourselves and our students at an international level. When playing internationally, we strive towards integrating principles of twenty-first century higher education curricula, pedagogy and assessment that are focused around issues of internationalization, Indigenous education, blended and flexible learning – specifically the online classroom, environmental, financial and social sustainability, education for practice, and, ethical competence – all topics which are increasingly of international significance in education.

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Chapter 9
Alternative Models of Learning, Thinking and Teaching

Beverley Moriarty and Louise Wightman

Abstract There is no doubt that pregnant and parenting teenagers face many challenges in completing their secondary education. They are confronted with the demands of transitioning into adulthood just like their peers at school but they also share with older parents the challenges of becoming parents and adjusting to parenthood. This chapter shows the value in creating space to play and transform learning in a complex context for young people.

Pregnant and parenting teenagers face the dual challenges of completing mainstream education while learning to become parents. It is imperative that young parents have access to alternative models of learning to enable them to succeed at both challenges. In particular, as noted by Oxford, Lee and Lohr, they need to complete their secondary education by age 19 in order to have the best chance of gaining and sustaining employment in the future.[1] Focusing on young parents as individuals and playing with alternative models of learning can set these young parents on lifelong learning trajectories that can lead to positive outcomes for both them and their children.

When teenagers become parents, particularly before they complete their secondary education, there is no doubt that their lives transform. There is a considerable body of research that examines the impact of early pregnancy and parenting on the life trajectories of these young people. Much emphasis in this research is given to the negative consequences of early parenthood, such as disruption to education and difficulties around attaining high school graduation, and subsequent low employment prospects, social isolation and mental and health problems.[2] While research in this area is mostly small-scale, it represents an accumulation of knowledge around the problems with early parenthood and adverse life outcomes.

[1] Oxford [1].

[2] Boden et al. [2].

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A prominent piece of research that complements the smaller studies into teenage parenthood is a large-scale, longitudinal study conducted by Oxford et al.[3] This study is important for several reasons. Firstly, it helps to address the timely need for larger, more definitive studies in the area. The 2010 report of the findings presented the analysis of the demographic data from 232 of the original sample of 240 participants over a 16-year period postpartum, with the average age of first pregnancy being 16 years. Secondly, the Oxford et al. study is important because it established the on-time completion of high school in the teenage years as being predictive of the outcomes of multiple markers of adulthood that concerned Boden et al.[4] The complex nature of pregnancy in the teenage years means that the particular challenges that young parents face are peculiar to their own circumstances, which include family background, SES, age of becoming pregnant, stage in school, health and well-being, and current mental and emotional states. Yet another set of influences on the ability of pregnant and parenting teenagers to complete high school by age 19 relates to limitations around school structures, the accessibility of young parents programs, the availability of a range of resources and the understanding and involvement of non-judgmental adults who are acutely aware of the particular needs of pregnant and parenting teenagers. The rapid developmental changes in the teenage years together with the differential and combined effects of these circumstances emphasises the importance of individual planning and guidance to enable these young people to complete their secondary education in the crucial teenage years.

The cumulative effects of these circumstances impact on all pregnant and parenting teenagers' chances of completing high school in their teenage years and their trajectories through life. It is the particular age and stage of schooling at which they commence parenthood that impacts further on the options that can be made available to them for completing high school. Pregnant and parenting teenagers have the same needs and challenges as their peers but they also have additional and more immediate needs and challenges associated with pregnancy and childbirth and adjusting to becoming parents. In order to meet all of these needs, consideration may be given to extending the period over which they would normally take to complete high school. Providing the support and circumstances for that goal to be reached is important, not only for improving the outcomes for young parents but also for maximizing prospects for their children.

There are good reasons for playing with alternative models of learning for teenagers who become parents while they are in school. Pregnant and parenting teenagers face many uncertainties during this period of their lives. The realities of becoming parents at this time and their immediate needs and concerns often take precedence over the practicalities of attending school requirements. High school completion often becomes a much lower priority.[5]

This chapter explores this journey in stages based on lifelong learning theory as espoused by Delors' 'four pillars of learning' and other key players in research into

[3] Oxford [1].

[4] Boden et al. [2].

[5] Wightman and Moriarty [3].

lifelong learning, alongside ‘Becoming a Mother’ theory.[6,7] These theories, which were first considered together in the authors’ research into the evaluation of a young parents’ program, form the framework to guide educators through the process of helping pregnant and parenting teenagers to explore their options for learning, to address questions around identity such as “Who am I and who is my baby?,” to consider life balance as teenagers take on the dual responsibilities of parenthood and their own schooling, and the competence and confidence of teenage parents to make effective decisions and life choices.[8] This framework can be used by educators to consider the individual needs of teenage parents and how to play with alternative models of learning devised to meet the specific needs of individual teenage parents.

9.1 Exploring the Options

The discovery of a pregnancy for a young person often comes as a shock and subsequent disclosure can be seen as an insurmountable hurdle, particularly as the majority of teenage pregnancies are unplanned. Mixed emotions of fear, anxiety, joy, despair and the ongoing stigma around teenage pregnancy may lead the teenager to hide the pregnancy, creating risks for themselves and the unborn child.[9] The most immediate need for a young person is often to establish trust with someone to enable disclosure of the pregnancy before options for both themselves and the unborn child can be explored. Collaboration between the teenager and early points of contact may be the key while important elements to consider are the thoughts, feelings, strengths and values of the teenagers.

Delors’ first pillar – *learning to know* – which relates to gaining the skills that help with thinking, memory and concentration, is appropriate as teenagers who become pregnant learn to think about and cope with their new reality.[10] It can be difficult for teenagers to concentrate on what needs to be done as they adjust to their changed and changing circumstances and their transition to motherhood, especially as they continue their lives as students. Mercer’s conception of becoming a mother (BAM theory) highlights the need of the young mother to restructure her goals and behaviours in light of her new and approaching responsibilities and to achieve a new concept of self.[11]

The quality of new mothers’ life experiences to date may be such that pregnant teenagers feel that they have limited choices for support and may be ridiculed by peers, family, community and educators. Pregnant teenagers want guidance as they

[6] Delors [4].

[7] Mercer [5].

[8] Wightman and Moriarty [6].

[9] Boulden [7, 8]; Pittaway [9].

[10] Delors [4].

[11] Mercer [5].

adjust to the permanency of their circumstances and the changes that will occur for them as they cope with pregnancy, preparing for birth and looking after a baby. Accessing support that is non-judgmental, available, open and flexible is critical, as the discovery of a pregnancy may be the start of the teenager's disconnection from education. It is understandable that their health and wellbeing is prioritized over the less relevant development of skills around thinking, memory and concentration in the formal school setting at this time.[12]

Most of the research to date focuses on the needs of pregnant teenage women with little consideration for the views of teenage fathers-to-be but educators need to be mindful that teenage pregnancy impacts on both males and females. The limited research available indicates that young men who engage in pregnancy support and decision making contribute to a more nurturing, supportive and stable environment for the their partner and unborn child and that they also have needs to be met.[13] In particular, male participants in this research expressed in retrospect their need to explore options to help them to gain skills and knowledge required to take on their new responsibilities and to support their partners.

Without a formalized policy, educators may be at a loss to know how to respond to a disclosure of pregnancy and their own values and beliefs may hinder the connection with the students and their right to continue their education.[14] Unless appropriate support is available, teenage pregnancy may mean that formal education ceases and the potential for employment, financial security and health and wellbeing diminishes. Policies and interventions targeting both genders of teenagers that inform practice and encourage exploration and access to a full range of curriculum options to support completion of schooling may be more effective if it is a whole school approach.[15] Developing partnerships with health and community organisations enables educators to work collaboratively to benefit their pregnant and parenting students as individuals.

The question that arises for schools is how they can accommodate pregnant and parenting students and meet their education needs whilst acknowledging their pregnancy, the imminent birth and parenting of their baby. To enable the couple to remain in formal education it is imperative to provide choices that are appropriate at each stage of the journey. Boulden noted that students often leave school believing that they have no right to stay or to challenge overt or covert suggestions that pregnancy or parenting responsibilities will impede their education.[16]

[12] Wightman and Moriarty [3, 6].

[13] Ross et al. [10].

[14] Shine [11].

[15] Boulden [7, 8]; Mollborn [12].

[16] Boulden [7, 8].

9.2 Who Am I and Who Is My Baby?

At the time when pregnant and parenting teenagers are faced with decisions about whether to leave or remain at school, they are wrestling with who they are and a new conception of self while also getting to know the new baby. Educators who are aware of Delors' second pillar – *learning to do* – which relates to the acquisition of skills, and combine this with that part of Mercer's BAM theory relating to seeking information and education about pregnancy, birth and parenting skills, can help pregnant and parenting teenagers to remain at school.[17] Educators do this by connecting the young parents with the people who are able to help them to acquire the skills that they need at the time that they are needed. It has been found through interviews with these teenagers that one of the most important considerations is timing this help so that it is available when the individuals most need it.[18]

Playing with alternative models of learning that are flexible enough to respond to the immediate needs of pregnant and parenting teenagers within the familiar setting of their school, helps to make education relevant as the young parents adjust to their changing circumstances. It is important to highlight that this approach not only has the ability to keep young parents connected with school and respond to their immediate need to make adjustments to their conception of self and gain new skills but that in every sense this approach is an investment in the future for these teenage parents. As Boulden pointed out, this type of rationale for providing specialized support for pregnant and parenting teenagers is strong because of the current and future benefits that accrue when these teenagers remain connected with school.[19] At this time in their lives, pregnant and parenting teenagers require the support and guidance of others who can provide access to the resources required to set specific and realistic goals that they can achieve.[20] In one way, therefore, it could be considered that the need to depend on educators for this guidance and support may be what keeps them in school at this crucial time as they transition towards greater independence and take on their new conception of self.

Additionally, educators may need a support system in place so they are able to make connections with community organisations. Often these organisations can provide coordinated access to services for the pregnant and parenting teenager so that they and their school can formulate a plan of care.[21] First time teenage parents do not differ from any other first time parents in that their experience of the first few weeks of their baby's life is a roller-coaster of emotions and bewilderment as they try to decipher the needs of their baby whilst trialling their unfamiliar mothering skills. An environment that acknowledges their strengths, limited life experiences and facilitates the sharing of developing knowledge may be more conducive to

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[17] Delors [4]; Mercer [5].

[18] Wightman and Moriarty [3].

[19] Boulden [7, 8].

[20] De Vito [13].

[21] Malin and Morrow [14].

increasing confidence than one that is content driven.[22] Educators need to be aware of their moral judgments, as a pregnant teenager's right to choose motherhood is a fundamental right and a supportive environment to continue their education will ultimately benefit both parents and their baby.[23]

The harsh reality of learning to be a mother and taking on the identity of a parent leaves little time to enjoy activities with friends. Completing school work may be low on the list of priorities as spending time caring for and playing with their baby is of most importance at this time. Harris and Franklin's evaluation of a school-based life skills group intervention program for pregnant and parenting teenagers found that addressing social roles, decision making, securing resources and emotional distress showed a statistically significant improvement in school attendance and grades.[24] This program was a cognitive-behavioural skills building program aimed at helping pregnant and parenting students to complete high school and become economically self-sufficient.

Of particular note in the early days of parenting is the increased incidence of depression in young parents and the risk that poses to their babies. Whitson, Martinez, Ayala and Kaufman found in their study that depression and limited social support led to teenage mothers reporting higher levels of parenting stress and difficulty recognising and attending to their babies' needs, which places their babies at risk of maltreatment and increased developmental delay.[25] In general, symptoms of depression are more prevalent in teenagers than for other age groups but pregnant and parenting teenagers are twice as likely as their childless peers to have severe depression.[26] In light of this research, educators need to aware that focusing on emotional health and wellbeing of young parents as they come to know their babies and accept parenting can directly influence healthy outcomes for their children and their ability to remain engaged in education.

9.3 Life Balance

Being thrust into parenthood requires teenage parents to shake off the self-centredness of adolescence and begin to explore their world from the perspective of their baby. Delors' third pillar – *learning to live together and with others* – involves tolerance to appreciate difference and depends on understanding the cultural context of others and appreciating how people are similar, which leads to deeper mutual respect.[27] Connecting with other teenage parents is important as their non-parent school peers are heading in different directions from them and they may feel quite

[22] Barnes et al. [15]; De Vito [13].

[23] Pittaway [9].

[24] Harris and Franklin [16].

[25] Whitson et al. [17].

[26] Mollborn and Morningstar [18].

[27] Delors [4].

isolated.[28] Mercer's BAM theory notes there is cognitive restructuring as the young mother learns to adjust to a new reality and looks to other parents as role models.[29] Young parents programs, whether community or school based, that provide child care facilities offer young mothers opportunities to seek models of mothering as they normalize their role and seek life balance.[30]

The challenge for educators is to understand the need of young parents to balance their school education, their baby's growth and development, and their relationships with their partner, family and friends. Educators may find themselves drawn into a stressful environment where the competing needs of young parents and the schooling system force them to make choices about where they focus their resources.[31] It may be hard for educators not to take the lack of progress and/or regression of students personally and remain motivated to create flexible, alternative learning programs that meet the education needs of pregnant and parenting teenagers. Having a non-judgmental, flexible and accepting attitude as an educator is critical to the success of any relationship with young parents and can help them to identify their own strengths and abilities and gain insight into their untapped potential as lifelong learners.[32] Young fathers may be particularly at a loss as current research indicates that they are often forgotten or excluded from support and leave school to gain employment to provide financial stability for the partner and baby.[33]

Modelling of a nurturing and stimulating environment that provides quality care for young parents can in turn increase the young parents' responsiveness to their children. Young parents programs that provide on-site childcare create an opportunity for educators to model the role of the parent as the child's first teacher. Sadler et al. found that in this type of environment young parents developed effective parenting behaviours that enabled them to anticipate their child's needs and foster their child's learning and remain engaged in their own education.[34] A broad support base is necessary for young parents to have emotional stability in their rapidly changing environment as they come to terms with their new roles as mother or father, enabling them to provide a stable environment for their children.[35] This support base can also help young parents to achieve a better life balance than might otherwise be possible. It can allow them the opportunity to make connections with others which, while helpful in a practical sense, can also help them to avoid the social isolation that can otherwise be prevalent.

The educational environment that provides mainstream educational attainment combined with programs that focus on parenting and employment skills can meet

[28] Ou and Reynolds [19]; Pittaway [9]; Sadler et al. [20].

[29] Mercer [5].

[30] Crean et al. [21]; Sadler et al. [20].

[31] Shoveller et al. [22].

[32] Wightman and Moriarty [6].

[33] Fletcher and Wolfe [23]; Ross et al. [10].

[34] Sadler et al. [20].

[35] Boden et al. [2]; Fergusson and Woodward [24]; Shaw et al. [25]; Whitson et al. [17].

the broad variety of need of pregnant and parenting teenager.[36] Educators can demonstrate tolerance and appreciation of difference when they create partnerships with community organisations that support pregnant and parenting students to learn their new parenting roles. This partnership is an important part of the learning environment that supports pregnant and parenting students to remain connected to education and take on the responsibilities of parenthood at a time when the young parents are still adolescents. In households where there is more tolerance towards early child bearing there may be conflict in prioritizing school completion. Through building a relationship with parents of their students and helping them stay connected to their peers, educators can model the benefits of lifelong learning and influence the trajectory of the lives of the children of these young parents.[37]

The challenge for most young parents is how to maintain life balance while reconciling their own development as an adolescent with that of becoming a parent. This too is a challenge for educators who may struggle with the concept of treating a student as an adolescent in school, knowing that the student has the responsibility of being an adult at home. Addressing this challenge and helping to restore some balance into the lives of young pregnant and parenting students requires a cultural shift within education environments that encourage partnerships between teachers, parents, student counsellors and pregnant and parenting students.[38]

9.4 Competence and Confidence

The need to feel competent and confident is important for educators who work with pregnant and parenting teenagers as well as for the teenagers themselves. Being part of a supportive school structure sensitive to the needs of teenage parents and having a principal, counsellor, head of department or other appropriate staff member who is able to advise and understand, is necessary for the educator to feel competent and confident in helping pregnant and parenting teenagers to meet their needs and the needs of their children. Mind, body and spirit are all part of Delors' fourth pillar – *learning to be*.[39] This pillar is about connecting all of the parts to address the developmental needs of the young mother or father. When the mother reaches the point of accepting her new role and is able to provide a positive environment that supports the growth and development of the child, which is a maternal need recognised by Mercer's BAM theory, the new mother becomes increasingly competent and confident in her ability to nurture her baby.[40] These feelings of competence and confidence take time to develop as the mother adjusts to her new role and especially as the needs of the baby change over time. This is why it is critical that teenage parents

[36] Boden et al. [2]; Boulden [7]; Fergusson and Woodward [24].

[37] Wildsmith et al. [26].

[38] Boulden [8]; Shine [27].

[39] Delors [4].

[40] Mercer [5].

have ongoing access to support that is timely and relevant and why educators need to focus on young parents as individuals.

The multitude of competing priorities for parenting students and their children may mean that the focus for students is on mental health, financial security and how to support themselves independently rather than seeing that education can provide them with long term stability.[41] Pregnant and parenting students may intend to re-engage with education but having parenting responsibilities may make it difficult for them to engage with peers and the lack of financial support may restrict their access to education. In order to appear competent and responsible young fathers in particular, may feel compelled to leave school to seek work to provide financial stability for their partner and children and educational aspirations are forgotten.[42] When high school education is not obtained before the age of 19 years the trajectory into lifelong learning opportunities diminishes.[43]

Key factors for young parents in achieving confidence and competence in their own education and parenting, is the level of social support and the quality of their own parenting and home life that can provide a stable, nurturing environment. Without support, the level of disadvantage increases for young parents along with increased risks for the health and wellbeing of their children.[44] Educators can play an important role in advocating for their pregnant and parenting students to enhance connections with support services both in and outside of the education environment. The needs of young parents and their children are multifaceted and complex and no single organisation is able to meet all of these needs. When these organisations work together such as through school based parenting and childcare programs, young parents benefit from contact with highly trained health and educational professionals.[45]

Faced with being rapidly catapulted into adulthood whilst still struggling with adolescence, young parents may feel judged by a society that still has negative views of teenage pregnancy and the potential lack of continuing education. An important element in providing support is a non-judgmental attitude towards the pregnant and parenting students and the decisions that they make regarding their education. With competing priorities, young parents may have high expectations of what they can achieve both as students and as parents. They may feel that they have to prove themselves to be competent for fear of being judged. When educators work in partnership with young parents and together identify goals around lifelong learning and parenthood, both parties develop further competence and confidence in their respective roles.[46]

There is no doubt that pregnant and parenting teenagers face many challenges in completing their secondary education. They are confronted with the demands of

[41] Fergusson and Woodward [24].

[42] Fletcher and Wolfe [23]; Mollborn [12]; Ross et al. [10].

[43] Boden et al. [2]; Malin and Morrow [14]; Ou and Reynolds [19].

[44] Whitson et al. [17]; Wildsmith et al. [26].

[45] Crean et al. [21]; Sadler et al. [20].

[46] Boulden [7, 8]; Harris and Franklin [16]; Ross et al. [10].

transitioning into adulthood just like their peers at school but they also share with older parents the challenges of become parents and adjusting to parenthood. These two sets of challenges are significant but they do not routinely occur together. When they do, the research indicates that future life trajectories for young parents and their children depend very much on whether these young parents can complete their secondary schooling by age 19.[47] During the short window of opportunity between becoming pregnant and the end of their teenage years, young parents depend on the guidance of responsible and caring adults.

The raising of the school leaving age in recent years means that schools will have more young people who become parents while they are still at school. If educators and other professionals are able to provide the support and resources to help young parents to cope with their changing circumstances by developing alternative models of learning that respond to the individual needs of these young parents, then remaining in school could have positive outcomes for teenage parents and for their children.

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Chapter 10
Press Play

Tara Brabazon

Abstract Podcasting has entered its second decade. Yet when we 'press play,' how is learning activated? How are new spaces created? This chapter enters a sonic space, showing the value of digital sounds and podcasting to teaching and learning.

Please follow my instructions on this page. My aim is to summon silence. After the industrial revolution, silence was rare. It must be created, constructed, built and recognised. Because sound leaks from cars, mobile phones, buildings, offices and headphones, silence must be sought and made.

Sit comfortably. Relax. Centre and calm your body. Focus. Concentrate.

Move beyond comfort. Move into disquiet. Seek the unusual. Find sound. Remember what you hear. At the end of this sentence, close your eyes and listen to your body's position in the world.

You have just activated 'blind listening.' It is an important technique to remember, learn, mobilize and interpret. Because we do not have ear lids, sounds attend our daily life. The unwanted sounds that enter our bodies are often described as noise.[1] Actually, noise is instructive, stretching, poking and probing the limits of our literacies.[2] To avoid this discomfort, artificial ear lids are created, including cars, mobile phones and earphones. Such strategies fail. Our bodies are relentlessly invaded by unwelcome sounds. Yet the desire for sonic satiation and safety continues.

When silence is acknowledged for its specialness, sound can be deployed to change our mood, build new literacies, and understand other people and communities. Through this process, sound becomes much more useful to education. Therefore, after this unusual start, this chapter occupies a distinctive place in *Play*. I cut away four of our five senses to focus on auditory culture, sonic media, hearing and listening. This is a multi-disciplinary study, activating auditory art, aural

[1] Attali [2], pp. 7–9.

[2] John Cage stated that, "in the past, the point of disagreement has been between dissonance and consonance, it will be, in the immediate future, between noise and so-called musical sounds," from *Silence: 50th Anniversary Edition*, (London: Marion Boyars, 2011), p. 4.

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architecture, sonic media studies, cultural studies, sensory anthropology, history and education.[3] I summon the specificity and distinctiveness of sound for teaching and learning when a teacher or student presses play (or record).[4] Before we start the sounds, it is necessary to pause, reflect and think upon its opposite.

10.1 Press Pause

> Shortly everyone, whether he's a musician or not, will have a computer in his pocket.[5]
>
> John Cage

We have an experienced guide through this journey to unfamiliar sonic experiences. John Cage realized the complexity of sonic modernity. As a composer and philosopher, he studied the density and texture of silence and the productive chaos of thinking through noise. His composition 4′33″ was released in 1952 and revealed that silence is never silent. It loops, ticks, swoops, breathes, hums and flows in waves, cycles and interventions. He recognised that silence must be constructed to be experienced.[6] By 1980, he predicted the smart phone, the 'computer in his pocket.' The twentieth century was a tough century – of war, genocide and destruction of the landscape through man-made attacks on air, water and earth. Through John Cage, this brutal century found its composer.

Cage's attention to silence, percussion,[7] disorganisation, randomness and play, embraces chance. Agitating the relationship between philosophy and composition, he opened out the spaces between hearing and listening.[8] No longer would a sound – to use the cliché – go in one ear and out the other. Instead, if we 'sound out' a word, then greater interpretation and understanding emerge. The goal is to create a movement from perception to consciousness. Barry Blesser and Linda-Ruth Salter

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[3] Klaus Bruhn Jensen stated that, "sound studies have no natural home in the academy," from "Sounding the media," *Nordicom Review*, Vol. 27, 2006, p. 8.

[4] The subtitles and sections of this chapter are intentional: pause, play and record. While teachers and students gain enormously through listening to the podcasts created by others, there is also profound value in recording content. This may be enfolded into student-centred learning, but it is also part of creative-led research, aligning a sonic artefact and exegesis. As one fine example of this movement from 'pressing play' and 'pressing record,' please refer to Forbes [3].

[5] J. Cage in Haskins [4], p. 147.

[6] The best way to experience 4′33″ is live. As part of the BBC Proms, it was performed. The riveting nature of this performance is clearly exhibited. Please view "John Cage 4′33″" YouTube, October 1, 2010, https://www.youtube.com/watch?v=zY7UK-6aaNA.

[7] John Cage described, "Percussion music is a contemporary transition from keyboard-influenced music to the all-sound music of the future," from *Silence: 50th Anniversary Edition*, (London: Marion Boyars, 2011), p. 5.

[8] Similarly, Carter [5], stated that "Active listening is not simply psychological jargon. In the context of 'hearing cultures,' it conjures up historical, cultural, or social situations in which listening surfaces as a device for creating new symbols and word senses," p. 45.

describe this as "a functional model of auditory awareness."[9] A location is squeezed into sound and a sound bounces through a location. Cage reminded scholars of sound about indeterminacy, the multiple layers of ambiguity between composition and performance. While our senses are drawn to the familiar, the role of teaching and learning is to stretch our perspective and perception.[10] To de-emphasise the visual and enhance and foreground the sonic means that teachers and other occupations that activate complex oral communication modes can play with sound and think about creating rich auditory environments that enliven learning.

Listening is different from hearing. It is intentional, conscious and active. Listening is literacy for the ear. It is a social act and involves making choices in filtering and selecting sounds from our sonic environment. Listening is underestimated in our daily lives and under theorized in academic literature. Jean-Luc Nancy confirmed that hearing is "to understand the sense," while listening "is to be straining towards a possible meaning."[11] He argues that listening requires work, decoding the unknown and inaccessible into the realm of interpretation and comprehension. The overwhelming majority of information we receive to understand the world emerges through our eyes. We believe what we see. Most of what constitutes knowledge and methods of study – like ethnography and participant observation – attach meanings to behaviour, derived primarily from the information we gather through vision. Differences between people are judged visually. Racism most frequently emerges from the differences we observe, rather than the diverse accents that we hear.

With this saturation of visuality, Michael Bull and Les Back probe "the opportunities provided by thinking with our ears."[12] We read sound through the ears as much as print on paper or text on a screen. Every act of listening is based on recalling a prior hearing experience. When we listen, we learn. Because we lack ear lids, we often accidentally and randomly build literacies, learning about ourselves through what we hear and how we evaluate it.

Listening is intensely personal and intimate. As Peter Szendy asks, "what summons us to listen?"[13] For those who teach and learn, our job is to connect the motivation for listening with a motivation for learning. Each new musical technology creates artificial ear lids to develop fresh intimacies between the self and sound. The transistor radio in the 1960s disconnected teenagers from their family. The iPod allows diverse groups to claim space through sound, whether it is commuters, students or drivers. While hyper-personal, if teachers and librarians can find a way to share and enable sonic literacies and listening practices, then communities of interest – communities for learning – are made.

Technology matters to this discussion. An array of platforms can control sensory information and build an environment for listening, learning and thinking. An argu-

[9] Blesser and Salter [6], p. 12.

[10] Sonic art can have a role in subverting and agitating this repetition familiarity. Please refer to Kim-Cohen [7].

[11] Nancy [8], p. 6.

[12] Bull and Back [9], p. 3.

[13] Szendy [10], p. 142.

ment I have proposed is that less sensory information creates different types of learning.[14] When teachers and librarians intentionally – with careful planning and consciousness – strip away platforms and digital information to create an information scaffold, innovative modes of learning emerge.

As revealed through this chapter, sounds move. Sounds bleed. But sound is intrinsically progressive.[15] Sonic architecture can be changed and enhanced at a far greater speed than conventional architecture. Most school and university classrooms were designed and built for fordist education. Rooms are square. Desks are in rows. A teacher is at the front of the class. While theories of learning have transformed, building construction has lagged. Mark Osborne, in his review of learning environments, stated that,

> Most of New Zealand school buildings were built in a time when direct instruction was considered the only pedagogy that resulted in effective learning. 'Factory-style' learning (where all students learn the same things at the same time in lock-step fashion) has largely disappeared from our classes. However the actual classrooms largely remain as they were original designed and still retain the suggestion of faculty-style learning.[16]

The key is to use educational technology to create change, flexibility and options while the buildings catch up with theories of learning. Podcasts – through sound – can move far beyond the limitations of bricks and mortar. A learning environment can transcend a physical environment.

Flexible learning is a phrase with many meanings and myriad political agendas feeding into it, from the extremities of neoliberalism through to the anarcho-syndicalist 'deschooling' movements. Mark Pearcy, from his history classroom, presented clear and convincing definitions and applications of flexibility.

> Podcasting presented several advantages for students – they could download the audio files and PowerPoint files from my school-based website, and play them through any compatible device, including phones and tablets. As opposed to the typical setting for such a lecture, students were not bound to the classroom – they could play the podcast at any point, in any place, and pause it when they chose. Of greater utility was the fact that by supplanting the role of the traditional transfer of historical knowledge in a lecture format, I had cleared time in class sessions for more student-centred, interactive strategies.[17]

Many modes of flexibility – in form and content – are discussed in this passage. There has been a movement of content to a student's environment and appropriate time. Pausing is possible, to allow for diverse learning goals, needs and speeds. But classroom spaces and goals have also transformed, flipping traditional practices.

[14] This argument is fully developed in my book *Digital Dieting*, (Aldershot: Ashgate, 2013).

[15] Carpenter and McLuhan stated that, "auditory space has no point of favoured focus. It's a sphere without fixed boundaries, space made by the thing itself, not space containing the thing. It is not pictorial space, boxed in, but dynamic, always in flux, creating its own dimensions moment by moment … We can shut out the visual field by closing our eyes, but we are always triggered to respond to sound," from Carpenter and McLuhan [11], p. 67.

[16] Osborne [12].

[17] Pearcy [13].

For Pearcy, this was not merely the movement in and of content. This was a transformation of learning and teaching processes and practices.

Educational technologies possess (at least) five functions:

1. To provide a framework for the presentation of learning materials,
2. To construct a space for the interaction between learner and an information environment,
3. To offer a matrix of communication between learners and teachers,
4. To offer a matrix of communication between learners and learners,
5. To offer a matrix of communication between teachers and teachers.

While it is easy in an era of digital convergence to align and conflate these roles – to combine presentation, engagement and communication into a synchronous bundle – there are advantages in the development of literacy and building an information scaffold to slow and differentiate these functions. Sonic media and podcasts specifically return the emotion, connection and community to education. They offer a crucial method to add reflection, consciousness and creation to learning.

The selection of delivery systems is a form of information management. A scholarly monograph is distinct from a blog, tweet or Facebook post. However, the medium is not the message. McLuhan was incorrect. Choosing a medium is the first moment – the first decision – in meaning, making and interpretation. When a platform is selected, producers make a decision about who they will *not* reach and the type of information they will *not* convey. It is not effective to choose Twitter to convey complex ideas. However as a pointer to rich information sources, it is excellent. Similarly if a librarian, teacher or writer wants to craft information that can be scanned by students at speed, then sonic media is a mistake. For rapid searching on screens, visual literacy is efficient and appropriate. For abstract ideas that slows a user's engagement with data and defamiliarizes the relationship between readers and information, then sound is ideal. If reflection, imagination and creative thought are required, then sonic media is a strong option.[18] Therefore, the next section of this chapter presses 'record' and creates sound in and through learning.

[18] The reason why sonic media creates this interpretative space is because of the gap between signifier (form) and signified (content). Printed signifiers such as the word "truth" offer a limited array of signifieds, particularly within formal education. While images offer an array of interpretative opportunities, the anchorage of the written word through such functions as captions to photographs, restrict the available meaning systems. However sound – along with smell, taste and touch – are senses that provide more ambiguous information to decode. The plurality of signifieds that emerge from such signifiers may not be useful in particular information systems, where definitive interpretations are required. However, if the goal is to encourage thought, questioning and critique, then receivers of sensory input that encourages ambiguity must work harder to connect signifiers and signified and build meaning.

10.2 Press Record

Can I assume that I know how all my students want to learn?[19]

Tait Coles

Podcasting is a portmanteau of 'iPod' and 'broadcasting' and has stabilized in its meaning to connote the online distribution of digitized media files and the use of syndicated feeds. The feed and subscription model is like a sonic direct debit. Users can automate the feed and files arrive without much thought. Playback is activated on portable media players and personal computers and time shifted to suit the listening patterns of subscribers. The initial attraction to recording podcasts was that individuals beyond radio stations could deliver and distribute programmes, creating a diversity of content, voices, accents and programme length. The advantages to listeners were clear: they were free, without advertising, personalized and able to be moved through time in a way that was not possible for radio.[20] The subscription model – based on the use of RSS (Really Simple Syndication) – ensured that new content was delivered directly to the user for consumption in a time and place at their convenience.[21] Once downloaded, concerns with reception – particularly in rural and regional areas – dissipated. Rapidly though, the early adopters who expressed their enthusiasm and interests were joined by empowered institutions like schools,[22] universities, museums, government and corporate communications. For some media organisations like NPR, podcasts became the platform for 'on

[19] Coles [14], p. 21.

[20] This tendency is sometimes termed the independent podcast movement. This differentiation is necessary, as 'born podcast' materials are distinct from the repurposed commercial and public radio that uses podcasting subscriptions as a secondary dissemination model. For a discussion of this independent movement, please refer to Markman and Sawyer [15].

[21] Ala-Fossi et al. [16].

[22] While outside the scope of this chapter, it is important to recognise that – within education – the bulk of research has focused on podcasts in universities rather than schools. The reason for this emphasis is unclear. It is unknown if there is more podcasting in universities in comparison to schools, or simply it is studied more frequently and therefore (over)represented in the literature. A key corrective study has been conducted by Jonathan Amicone and Lan Li. Refer to their study, "Podcasting use in a junior high social studies class: a research study of impact on podcasting on student performance," Society for Information Technology and Teacher Education International Conference, March 17, 2014, http://www.editlib.org/p/130868. They created a study in the eighth grade Junior High Social Studies classroom. Forty students were studied, with the group split between the experimental and control group. The result of this small study cannot be representative, but is indicative of areas of future development. The researchers' recommendations were clear: "results from this study indicate that students who used the podcasts for an eighth Social Studies class outperformed the students who were given a silent study room to study their social studies. With this promising result, the researchers would suggest teachers should consider using podcasting in their classrooms because not only did students who had access to the podcast feel more comfortable taking assessments, but they also performed better than other students in their class. Since these podcasts are posted on a website, parents also have access to them so they can aid in their child's educational development," p. 843.

demand' radio.[23] A major area of success has been the deployment of podcasts in formal education. My chapter explores the rationale for this uptake and proliferation.

Teachers' talk has been critiqued for decades, mainly because it has been configured as the antithesis of student-centred learning. But the problem is not teacher's talk but unnecessary teacher's talk. David Didau described the 'secret' of literacy as "making the implicit explicit."[24] He asks that teachers – and politicians and policy makers – move beyond a deficit model for literacy. Such a model creates deep anxiety for students as a deficit model for literacy too easily displaces into a deficit model for people. Yet the way in which 'assistance' is given to both people and the literacy 'problem' only reinforces the problem because "scaffolding has been conflated with writing frames."[25] Sound and sonic media have an expansive capacity for developing oral communication, enlarging vocabulary,[26] organising ideas and creating space for DIRT (Directed Improvement and Reflection Time).[27] There is also an array of occupations – of which lawyers, medical doctors and nurses are clear examples – where data collection and diagnoses are obtained verbally from clients and patients. Listening to systems and situations, and being able to shape oral data into a diagnostic or evidence, is a key skill.[28]

The making of sonic media and podcasts – the pressing of 'record' – signifies an array of transformations, particularly in teaching language. The words move from *should* and *could* to *is*, *are* and *do*. It also provides a way to move beyond blame, shame and a complaint culture and towards diverse, complex and differentiated understandings of achievement. The innovative uses of podcasts in schools and universities are remarkable. At the University of Chicago Pritzker School of Medicine, a podcast was used to help candidates through the admissions procedure. They surveyed those who had listened to the podcast, directly accessible off the webpage. The candidates responded that it both increased their personal preparedness but also solidified their decision to apply for the School.[29]

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[23] O'Baoill [17].

[24] Didau [18], p. 2.

[25] Didau [18], p. 39.

[26] An expansive area of research is the role of podcasting in language learning. A strong study is Ting [19].

[27] Didau [18], p. 85

[28] It is no coincidence that medicine and dentistry – as disciplines – are over-represented in the podcasting literature. Besides an expansive content base, requiring a series of more complex revision strategies, the execution of professional practice necessitates a well-constructed auditory culture, where oral communication is of high quality. A fascinating – if mixed – study of podcasting in nurse education found that the faculty staff found the podcasts useful, but the students were less convinced. Geraldine Marrocco, Meredith Wallace Kazer and Leslie Neal-Boylan reported that "Many [students] viewed podcasts as extra work and preferred face-to-face class or written assignments," from Transformational Learning in Graduate Nurse Education through podcasting," *Nursing Education Perspectives*, Vol. 35, No. 1, 2014, pp. 49. Significantly, the students appeared to have understood podcasts as simply another way to present content. Actually the form of the presentation is also important: hearing information in a different form, necessitating alternative modes of interpretation.

[29] Ferguson et al. [20].

Teaching and learning with and through sound are filled with surprises. While leading a Masters programme in the United Kingdom, one of the courses I offered to students was titled Sonic Media. I had assumed my other courses on popular culture, media literacies and city imaging would be much more popular and a small group would be drawn to sound. Actually, Sonic Media became the largest course in the programme – and the weirdest. Students – inspired by Cage, Eno and radically defiant theorists in this field – produced some extraordinary research and moved it through multiple platforms. Faracy Grouse, for her final assignment, built instruments to be played by water, wind and earth. She took an axe to a dysfunctional piano – with more than an echo to Yoko Ono – and allowed the wind to play the exposed strings. Other students danced, sang, hit objects and experimented with beeps, pings and tones. It was simply the most creative teaching experience of my life. Such achievements had little to do with the teacher, and a great deal to do with the freedom of sound and the chance it provides for students to stretch and challenge.

There must be space – a learning space – in our tightly regulated schools and universities for experimentation, silence, reflection, noise, sound interpretation, correction and recalibration. Podcasts can be an integral part of this strategy to summon sounds (for) learning. When we press play on an iPhone, iPad or iPod, a sonic environment is created. A distinctive mode of learning is revealed. Podcasting is important: as Diane Chen reported, it "gives voice to the internet."[30] Most of digital screen culture is visual. Computing speakers are hidden and masked between keyboards and screens. Embedded in this hardware – positioned in an appropriately liminal location – are speakers. The question remains how they are used to subvert, challenge and fray the linear relationship between typing and viewing words on a screen.

'New media' is a nonsensical phrase. Every 'new media' has old media within it.[31] Podcasting has some relationship with digital radio.[32] Both podcasting and radio weave into the fabric of daily life, adding texture to the everyday patterns. Particularly, podcasting rejuvenates talk programming. To understand these relationships between old and new media, media archaeology is "a travelling theory, mobile concepts and shifting institutional affiliations."[33] When aligning theory and history, integrated and resilient vocabularies can be developed to understand digitized sonic media and podcasting. Digital sonic history is important and distinctive. David Grub realized that, "persuasive arguments can be made that the current availability of an unprecedented amount of recorded music has contributed to a levelling of musical hierarchies."[34] The proliferation of sounds (and noise) ensures that new relationships and opportunities emerge to connect text and context, experience and expertise. This is not high or popular culture, art or trash. All sonic files are equal

[30] D. Chen, "Foreword," from Fontichiaro [21], foreword.

[31] To explore the life cycle of media please refer to Brabazon [22].

[32] Dubber [23].

[33] Parikka [24], p. 15.

[34] Grubbs [25], p. xv.

before the download. This plurality and diversity is captured within the word 'multimodality.' Digitization can – at its best – integrate an array of textual experiences.[35]

Podcasting came late to learning. It came late to language. It gained popularity through Ben Hammersley in a *Guardian* article from 2004.[36] Teachers and librarians forget how recently the iPod and podcasts entered the portfolio of educational media. Robin Mason and Frank Rennie's *Elearning: The Key Concepts* – published in 2006 – does not have an entry for podcasts.[37] That is no surprise. The book was published only 2 years after podcasts moved from a *Guardian*-inspired neologism and into popular culture.[38] Since then, a range of websites[39] and guides have been produced to assist the movement into podcasting.[40] However it remains important for both teachers and students to maintain an open, vibrant and imaginative definition and application of podcasting.[41]

The iPod has not only offered new ways of listening to music, but new ways of engaging with sonic media. Sound is a mode of communication that slows the interpretation of words and ideas, heightens awareness of an environment and encourages quiet interiority. It punctuates buildings, workplaces, leisure complexes and family life. The visual bias in theories of truth and authenticity means that sounds are often decentred or silenced in empowered knowledge systems. Education rarely manages this subtle sonic sophistication. Formal educational structures are geared to develop literacies in managing print. Too often, soundscapes are cheapened with monotonic verbal deliveries in lectures, interjected with stammering and confusion, and do not open our ears to the other rhythms, melodies, intonations and textures in the sonic palette. The i-lecture rollout was commercially labelled

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[35] This multimodality was enfolded into the phrase 'new media' in the 2000s. Please refer to Kist [26].

[36] Hammersley [27].

[37] Mason and Rennie [28].

[38] Podcasting is a portmanteau of 'iPod' and 'broadcast' and has stabilized its meaning to connote the online distribution of digitized media files and the use of syndicated feeds. The feed and subscription model is like a sonic direct debit. It can be set and files arrive without much thought. Playback is activated on portable media players and personal computers and time shifted to suit the listening patterns of subscribers. The initial attraction to recording podcasts was that individuals beyond radio stations could deliver and distribute programmes, creating a diversity of content, voices, accents and programme length. Rapidly though, the early adopters who expressed their enthusiasm and interests were joined by empowered institutions like schools, universities, museums, government and corporate communications. A major area of success has been the deployment of podcasts in formal education.

[39] How to podcast tutorial, www.how-to-podcast-tutorial.com.

[40] Boyden [29]; Islam [30]; Harnett [31]; Mack and Ratcliffe [32]; Herrington [33].

[41] Andrew Middleton, in his "Introduction" to *Digital Voices* [34], told of a workshop at the University of Chester's Warrington campus in June 2008. He stated that, "the point of that workshop was to demonstrate that definitions or explanations of educational podcasting, or any other technology can be unnecessarily constraining: podcasting is what it needs to be. Above all the exercise proved that educational podcasting can be designed to meet the needs of any academic, any cohort, and ultimately, any student," p. 4.

Lectopia and then through a merger it became known as EchoSystem 360.[42] This was an example of how an urgent – yet under theorized – need to obtain ‘online materials’ from academic staff resulted in low quality sonic resources. The system was developed so that it could be automated and not subjected to the chance of academics ‘ruining’ the recording and distribution. This desire for standardization rather than standards, marginalised and undermined the complex relationship between media and education. Yet as social media developed through the first decade of the twenty-first century, through the reduction in the price and complexity of hardware and software, new opportunities for sound and vision emerged. Recording a lecture and depositing it in a learning management system became an increasingly common, but banal, deployment of sonic and visual media.[43] The practice of recording lectures and disseminating them through podcasts has been justified by Smith and Morris.

> Providing an audio recording of a lecture has the potential to augment and support learning by reducing the need for constant note taking and allowing students to review lecture material to increase understanding. Furthermore, allowing students to listen to lectures again at a convenient time and place enhances flexibility and accessibility in HE.[44]

Smith and Morris have confused the relationships between form and content. Taking a conventional lecture and disseminating it in new ways is innovative. But considering how the content itself may change to deploy and activate the specificities of sound-only digital materials is a more expansive and useful project.

Podcasts are simple to produce and receive and suitable for online learning.[45] They also offer an intellectual opportunity for reflection on sound in learning. The most effectively branded platform for educational podcasts is iTunes U, which is part of the iTunes online store. The store’s business model meant that songs could be downloaded without a monthly or annual subscription fee. One-click purchasing led to impulse buying because of the relatively small costs and immediate desire for a track. Music videos, games, television programmes, films and apps were later sold. The arrival of the iPod Video, iPod Touch, iPhone and the iPad also created the

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[42] Lectopia, http://www.lectopia.com.au/ and Echo 360, http://www.echo360.com/. Most amusingly, these organisations are part of the “Lecture Capture Community,” http://www.lecturecapture.com/.

[43] Perhaps it is time to be more descriptive and describe this activity as lecture-casting, rather than podcasting. To evaluate the functionality of this process, please refer to Schmoelz [35].

[44] Smith and Morris [36], p. 2.

[45] A. Chan and C. McLoughlin disagreed with my argument here, reporting that, “although substantive data is not available at this stage, in a postgraduate distance education cohort consisting of mature age, working professionals, the students appeared to favour text-based material in print or electronic (web-based) form. In fact, some even asked for transcripts of the podcasts to be supplied so they could avoid having to listen to them,” p. 18. While I have found the opposite of their findings – with mature-aged female students using sonic media educational sessions in the car on a school run for example – the assessment by Chan and McLoughlin of diverse learning communities requiring diverse media is an important corrective, particularly considering the title of their paper: “Everyone’s learning with podcasting: a Charles Sturt University experience,” *Proceedings of the 23rd Annual Ascilite Conference*, 2006, http://csusap.csu.edu.au/~achan/papers/2006_POD_ASCILITE.pdf.

potential for video podcasts or vodcasts[46] to be delivered through an increasingly larger screen.

The seamless integration of podcasts into the iTunes Music Store added another arm to the business model, with free materials available for downloading alongside commercial music. It is important to note that the proportion of users who download podcasts is smaller than those who buy and download music.[47] It is part of the long tail[48] and narrowcasting, rather than broadcasting. It was in this context that iTunes U was developed. It was designed to be integrated into the iTunes Store but featuring university logos. Student content was not and is not the bulk of material situated in iTunes U. Instead, there are lectures, conferences presentations, university alumni information and guides for students. In other words, most material is derived from staff in the form of teaching materials, promotional talks and corporate presentations of 'student life.'

The advantages of this educational material – for students and lifelong learning for those outside of schools, colleges and universities – are enormous. There is a reason for this success. Sonic media offer a reflexive space[49] for the teaching of abstract ideas.[50] While acknowledging this strength, it is important to recognise the weaknesses of post-visual (or blind) media. Not every subject is best learnt through digitized, mobile sound. Yet when podcasts and asynchronous sonic sessions are written and targeted for particular courses, approaches and student communities, the effects are powerful.[51] For example, Jack Herrington outlines the importance of

[46] This chapter particularly focuses on podcasts rather than vodcasts. For the purposes of my theories of sonic media, sound-only platforms offer a distinctive mode of learning and thinking. Vodcasts – through the visual and sonic signifiers – hold much in common with televisual presentations, albeit with the inflection of user generated content. However there is also a technological issue to consider – beyond andragogical theories. In many areas of the world, insufficient bandwidth means that video presentations are stilted and subjected to an array of pauses and interruptions. Because podcasts are much smaller sonic files, there is less interruption while streaming and a much more rapid download. There are certainly workarounds. As one example, please refer to Rankothge and Dias [37].

[47] The PEW Internet and American Life project conducted a study of podcast downloaders and configured a profile, finding them to be most frequently male and experienced internet users. Their first study was conducted at the end of 2006. Please refer to Madden [38]. To monitor the changes in this profile two years later, "Podcast Downloading," 2008, http://www.pewinternet.org/Reports/2008/Podcast-Downloading-2008/Data-Memo/Findings.aspx. Importantly, by May 2013, this proportion was increasing. PEW reported that 27 % of internet users download and listen to podcasts. Please refer to Zickuhr [39].

[48] Anderson [40].

[49] Marshall McLuhan described, "Acoustic space is a dwelling place for anyone who has not been conquered by the one-at-a-time, uniform ethos of the alphabet: from C. Cox and D. Warner (eds.), "Visual and acoustic space," in C. Cox and D. Warner (eds.), *Audio Culture*, (New York: Continuum, 2004), pp. 68.

[50] Brabazon [41].

[51] To hear podcasting options that are available in a discipline such as law, please refer to Brabazon and Redhead [42].

"becoming a critical listener,"[52] placing attention on structure, style, technical elements and content.

Initial leadership into iTunes U was derived from elite universities, including Duke, Stanford, the University of Michigan and the University of Missouri, but smaller campuses have increased their international corporate visibility through this relationship. Stanford has gained most from the publicly branded material. All their podcasts are professionally introduced and while some of the sonic quality is variable, the tracks are introduced, advertised and mixed in a standardized and professional fashion. Stanford had a model to follow and improve, building on the high profile deployment of iPods by Duke University. In August 2004, Duke distributed 20 GB iPods to 1600 first year students. With enough space to store 5000 songs, it was preloaded with orientation content in both spoken and written form, alongside information about Duke's academic environment and student activities. It was a US$500,000 investment from the University. The key element of the Duke story that is underplayed in the retelling is that the University also provided a Belkin bar microphone to attach to the iPod. Students used the microphone to record lectures and interviews for oral history and community media courses. Academics used the iPod to disseminate class content, record class-based discussion and for file storage and transfer. It was aligned into curriculum as a fieldwork recording tool.

By the end of the first year, Duke released its evaluative report of the iPod experiment.

> Initial planning for academic iPod use focused on audio playback; however, digital recording capabilities ultimately generated the highest level of student and faculty interest. Recording was the most widely used feature for academic purposes, with 60 percent of first-year students reporting using the iPod's recording ability for academic purposes.[53]

This is a crucial moment in the history of sound and education. The significance of 'the Duke moment' in the history of iPods in education was to recognise that much of the value of the unit was derived from the Belkin voice recorder. It meant that listening could – with technical ease – transform into recording. The 'what if' scenario is an enticing one. If Duke had distributed the iPods without the microphone, then student behaviour may have drifted into listening to music rather than creating new content. Instead, there was a more malleable and integrated relationship between listening and recording, downloading and uploading, the iPod and curriculum. If Duke's 2004 and 2005 'experiment' is assessed in terms of the wider iPod-owning constituency, then it is clear that most users mobilize the platform for listening rather than the production of material. Duke's story is different because from the start of the unit's distribution with a microphone, there was an assumption of interactive production.

After 2 years of experimentation, the University moved away from providing iPods to students.[54] The iPod was treated, not as a branding or marketing device, not

[52] Herrington [33], p. 51.

[53] Belanger [43].

[54] Read [44].

as a Web 2.0 platform and the basis of social networking and collaboration, but as "as a course supply, much like a textbook."[55] In the space of 2 years, iPods went from the forefront of educational innovation to the basic kit of an undergraduate student. In the mid-2010s, the iPad is moving through a similar cycle.

In reviewing this early history of both podcasts and iTunes U, three strategies emerged for their deployment in education:

- distribution of lectures for review
- delivery of new educational materials (which may be termed 'supplemental materials')
- use for student assignments[56]

Other functions also emerged that included branding and marketing, alongside the potential of podcasting to provide a sonic archive for significant historical, theoretical and political moments. An increasing diversity of materials is distributed through podcasts, even though the lecture continues to dominate. Lecture recording is the simplest and least time consuming way to create sonic material. Obviously, simply because lectures are syndicated to a student does not mean that they are heard.

A series of surprises have emerged in how students work with podcasts. Most significantly, it has been revealed that up to 80 % of students listen to podcasts at their computer rather than deploying the mobility of the iPod platform.[57] The potential of mobile education – delivering content anywhere and anytime – is distinct from the lived experience by students of learning by podcasts.[58] Hardware does not move. Content moves.

We have now entered our second decade of podcasting. As the medium has matured, better uses of sonic media generally and podcasting in particular have emerged in education, rather than as medication for poor lecture attendance. As a teacher, and moving beyond space and time-shifting lectures, I have located ten clear uses for podcasts in my practice.

1. Teachers record specific (and short) sonic sessions that conveys specialist and often abstract information for a targeted audience, to enable deeper learning.

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[55] Earp et al. [45].

[56] Deal [46].

[57] Office of Technology for Education & Eberly Center for Teaching Excellence [46]. Please note, this result was confirmed in 2014 in a study by Smith and Morris [36].

[58] This realization enhances the complexity and plurality of how mobile learning is defined. It may not only signify time and space shifting, but also a changing relationship between production and consumption, learning and dissemination, learner and expert. An example of this changing definition and application of mobile learning is Ross Kendall's "Podcasting and pedagogy," from Douglas McConatha, Christian Penny, Jordan Schugar and David Bolton, *Mobile Pedagogy and Perspectives on Teaching and Learning*, (IGI Global, 2014), pp. 41–57. He stated that "mobile learning embodies the means to change relationships between learner and expert and that such connecting is a key attribute of contemporary podcasting in education," p. 41.

These distinctive sessions are often a replacement for lectures,[59] providing the foundation for flipped learning.[60] (Profcasts)

2. Learners create sonic assessments, constructing links between theory and practice, analysis and production, artefact and exegesis.[61] (Learner-generated podcasts)
3. Presenting the student experience of a course, beyond surveys.
4. Providing audio feedback for assignments.[62]
5. Providing sonic notes of supervisory sessions for coursework postgraduate programmes.
6. Generate new modes of doctoral supervision.[63]
7. Disseminating student research and provide a show reel of student development.[64]
8. Creating special events and guest speakers to embed later within learning management systems and research.[65]
9. Recording micro-interviews with staff and students on a Creative Commons licence that can be re-purposed as Open Educational Resources.[66]
10. Recording learning events for men and women with visual impairments, creating rich sonic materials.

[59] I have used short sonic sessions as an entrée – a primer – into a lecture, preparing students with a short introduction to the area of learning, with key questions to think about before entering the lecture theatre. A study of this "primer podcast" function is Popova et al. [47]. The specific value of these primer podcasts revealed in this article is that they are 'joiners': connecting old and new knowledge. These bridges encourage deeper learning by preparing students for new concepts. They also recommend the value of concluding the podcast with a question for the students to answer.

[60] Bergmann and Sams [48].

[61] These are increasingly being termed "learner-generated podcasts." This phrase differentiates from teacher produced materials, particularly the dissemination of lectures (profcasts). To view an application of learner-generated podcasts in an English Business School, please refer to Powell and Robson [49].

[62] To review one academic's use of sound for feedback, please refer to Anne Nortcliffe, "A journey through audio feedback" from Middleton [34], pp. 124–129. She demonstrated the value of audio feedback for students, but also for herself. As an academic with dyslexia, audio feedback was enabling to and for her clear expression to students. Therefore audio feedback is an example of universal design.

[63] A strong chapter investigating 'audio' notes for all university learners is A. Nortcliffe, A. Middleton and A. Rossiter, "Learners take control – audio notes for promoting learner autonomy," from Middleton [34], pp. 57–69.

[64] A basic but clear guide to career-building through podcasting is Sawyer's [50].

[65] This is particularly important as funding for guest speakers in universities decline. Also, in rural and regional areas, the ability to attract speakers to travel to these locations is difficult. Further, through the mobility of digital files, it is possible to bring a wide range of views, experience and expertise into a classroom that would not be possible through the physical transportation of speakers. Podcasts build connectivity.

[66] This type or genre of podcast can also be termed a DALO (Digital Audio Learning Object). Please refer to Richard McCarter and Andrew Middleton, "Digital audio learning objects – student co-operation and creativity in audio design," from Middleton [34], pp. 103–112.

There are many more. Most of these uses are creating deeper learning, moving from superficial and into the abstract. The use of podcasts, particularly in doctoral education, is an emerging area of growth and development.

For under confident and inexperienced students, podcasts are an opportunity to connect theory and practice, thinking and doing. To provide one example, Richelle Adams and Erik Blair demonstrated how podcasts can assist engineering students in gaining mathematical expertise.[67] Particularly for a postgraduate course, podcasts on often abstract mathematical concepts can both fill gaps in knowledge systems and provide a revision[68] of older learning experiences. The advantages are clear: podcasts are inexpensive to produce. They build a community of learners and add emotion to education. They are successful, as assessed by A.W. Bates' early checklist that evaluated educational technology.

Assessment of educational technology
Cost
Learning effectiveness
Availability to students
User friendliness
Place in the organisational environment
Recognition of international technological inequalities

Source: Bates [1], p. 243

While Bates assessed analogue education technology, the effectiveness of this checklist is clear. Learning requires motivation, method, delivery and evaluation. Phrases like "knowledge transfer" underestimate the planning required for learning. It suggests that ideas move between people as easily as a song is downloaded from iTunes. Dissemination, let alone learning, is much more complex. Sonic media performs this complexity, as they deliver information differently. Sound whispers its presence. When we share a sound, we share a story and a memory.

Because auditory literacies are under-researched, there is a tendency to underestimate the effectiveness of sound in learning. For example, Nandini Shastry and David Gillespie stated that,

> The popularity of podcasts has mostly to do with the fact that audio has become an easy way to consume information without much effort. Reading anything requires your complete attention; your eyes need to see the content, your mind needs to be involved in digesting it, and your attention must be fully focused on the visual matter to understand it. On the other hand, using audio allows you to multitask and does not require your eyes.[69]

Digestion is rarely an effective metaphor to understand the complex movement between information and knowledge, reading and understanding. Formulating binary oppositions of reading and listening, active and passive, attention and

[67] Adams and Blair [51].

[68] To evaluate the role of podcasts for revision, please refer to, Shantikumar [52].

[69] Shastry and Gillespie [53], Kindle Edition, locations 88–96.

inattention, difficult and easy, is not capturing the complexities of learning through sound. However Shastry and Gillespie do recognise the benefit of opening up new spaces and times while travelling, commuting or exercising to create new learning opportunities.[70] To transform the digestive metaphor into a culinary one, sound is the jelly of the media world. It fits into the spaces left by other responsibilities and media.

Podcasts are free. Gleaning a large audience is not the aim. An engaged international audience is the imperative. For example Bob Sprankle's Maine classroom was composed of third and fourth grade student podcasters, who attracted a small but authentically international community of listeners.[71] This community of listeners is highly motivational for students. While schools and universities often lag in the introduction of new technology, it is important to recognise the consequences – in terms of an audience for students' work – when remaining wedded to earlier technologies. For example, students have been asked to use a pencil – a technology introduced in the 1550s – to synthesize and present knowledge to one person (a teacher). A podcast uses digital platforms to disseminate student knowledge much more widely.[72] In moving from a pencil to a podcast – from extrinsic to intrinsic motivation – students may see knowledge as emerging, evolving, transformative and international.

Podcasting was based on democratization of software and hardware, and a reduction in the technological expertise required to operate it. Through the 2000s, mobile phones gained increasing functionality. Smart phones – enabled through applications and improved microphones – create reasonably effective recordings. Yet for a small investment, an array of strong, specialist, yet domestic microphones are now available. The basic recording kit includes:

Microphone
Headphones or an external speaker
Audio editing software
Copyright free MP3 sonic loops (optional)

As early as 2006, Peter Meng tracked the problems of the convenient – if domestic – recorder.

> Higher quality audio or video generally require a higher level of technical expertise. Currently many podcasts are known for their 'scratchy' or homemade personalities. As the popularity of podcasting grows we will see ever more sophisticated broadcasts with increasing production values and higher level of required technical skills. The School of Journalism at The University of Missouri has already committed to producing all future podcast and vodcasts using 'best practices' – a professional quality level for their podcasts and vodcasts which they are currently defining.[73]

[70] Shastry and Gillespie [53], locations 438–437.

[71] Bob Sprankle, http://bobsprankle.com.

[72] For a wider discussion of audiences for student work, please refer to Fryer [54].

[73] Meng [55].

Some theorists argue that the sound quality of podcasts is not important. For example, Anthony Chan and Catherine McLoughlin state that,

> The ability to produce high fidelity sound does not appear to be critical to the success of educational podcasts. Students tend to be quite tolerant in this regard, so as long as the speech is sufficiently audible and clear. With this in mind, there is no need for sophisticated, studio-grade sound recording/editing hardware and software. To date, the project has relied solely on inexpensive, handheld computer microphones and free/open source software.[74]

It would be informative to ask if Chan and McLoughlin's students are still 'tolerant.' Some students have been less satisfied. Significantly, one student equated a lack of quality in the technical output with a lack of quality and commitment in teaching.

> A novice podcast listener can tell the difference between poor sound and sound that reflects even a small amount of attention to detail and quality. For students to value a podcast, they need to believe that the professor values it as well. Part of that comes from demonstrating a commitment to quality in recording.[75]

Podcasts do not have to sound like the opening to Rick Wakeman's *Journey to the Centre of the Earth*. However technical and teaching expertise must be aligned.

Problems emerged in the University of Michigan's School of Dentistry experiments with podcasting. In a desire to reduce costs, they attempted to use the iPod as an audio capture device, a convergent Web 2.0 platform that records, stores and plays.

> From the beginning, we attempted to contain costs. Because the iPod would be a low-cost solution, we explored it first as an audio capture device. Students reported using iPods to record lectures, and a few students placed iPods with supplementary microphones on their desks in the front row of the lecture halls. This method produced unsatisfactory audio quality and was highly dependent on lecturer position.[76]

After this failure, staff attempted to attach the Belkin Universal Microphone adapter and iPod to the lecture hall's public address system. The resultant audio was useless. Staff finally deployed the Apple PowerBook G4 to capture audio, using Apple's QuickTime Broadcaster. They added metadata and posted the file to the website. The creation of an Advanced Audio Codec (AAC) file presented several advantages besides being the nested format of the iPod. It permitted bookmarking but also a change in playback speed. Such an initiative was expensive, particularly in terms of technician time. The staff reported that,

> Now that more information has been published about portable audio and iPods, high-quality audio production is clearly the most critical component. While the tools used to create the audio files … are becoming easier to use, the process still requires professional technical expertise.[77]

That technical expertise has now been reduced because of the enhanced interfaces of both software and hardware. The iPod was disruptive and transformed

[74] Chan and McLoughlin [56].

[75] Windham [57].

[76] Brittain et al. [58].

[77] Brittain et al. [58], p. 29.

thinking about sound both inside and outside schools and opportunity. We are witnessing a radical transformation in the socio-technical configurations of sonic media in education. Students are not using the iPod to listen to educational materials. They are using their computers. So while this last decade in educational technology may be termed an 'iPod moment,' actually students did not use it as a listening platform, and academics are moving away from the iPod as a recording device. The iPod is the symbol and activator of change, not the platform of change.

Podcasting – like vodcasting – has captured the consequences of domestic technology producing high quality outcomes. Portable microphones like the Zoom H2 and Hn4 are easy to use, generating quality recordings. They weigh 120 g, have a power adapter or can use two AA standard batteries. They deploy a USB and SD card interface, permitting high quality recording with control over sound capture with four separate microphone capsules. The Zoom H4n also includes a small speaker to test the recordings. Pop screens are available and low cost. Because of this simple and effective technology, the focus can move to improving the quality of the voice and content and creative uses within curriculum or media organisations.

The quality of microphones does matter. While some information management scholars such as Berk et al. have stated that, "the difference in quality between a good microphone and a cheap one was minimal,"[78] that is incorrect. If the initial recording is not adequate, then it is very difficult – indeed impossible – to boost, clean and enhance the file so that it is useable. These scholars do acknowledge that, "cheap microphones are more inclined to 'pop,' which is an audible distortion on hard consonants such as 'p'. We reduced this problem by turning the microphone on an angle during recording and by using an iPod earbud cover as a make-shift pop-sock, which worked very well."[79] Actually, a Zoom of either model with a $20 pop screen, enables librarians, teachers and students to sit at a desk and record good quality sound.

With a high quality recording, editing is less difficult. Editing software has also improved for podcasts and the construction of sonic files. While Audacity is free open source software, it requires the installation of a LAME MP3 encoder to overcome software patents. It is not as intuitive as other recording and editing programmes. While the Adobe Audition – which enfolds the Cool Edit Pro editing suite – is arguably the best software on the market, its complexity and scale is beyond what is required for many educational productions. A more appropriate and available software at one tenth the price is Acoustica's Mixcraft, which is an intuitive multi-track audio recorder and remixer. While useful for musicians and remixers, it is also ideal for constructing podcasts and sonic material, composed of perhaps two or three sound tracks. It allows a simple mix down into MP3 files. Mixcraft is one of many intuitive and effective medium priced platforms and programmes available to improve the management of digital sounds.

For educational institutions like schools and universities, podcasting provides new modes, genres and forms of learning that can enmesh with an array of learning

[78] Berk et al. [59].

[79] Berk et al. [59].

management systems. Podcasting in schools offers remarkable opportunities. Speaking is an important way of thinking, sharing and communicating knowledge. It builds relationships and offers surprises. Vocabulary can be developed. Through podcasting, the value of the voice can be recognised, along with a reflection on how the body provides the vehicle, pathway and gateway for creating that voice. The movement between thought and speech is not linear or expected. Vygotsky and Kozulin stated that "thought undergoes many changes as it turns into speech. It does not merely find expression in speech; it finds reality and form."[80] The spoken word is a commitment to a line of reasoning, an actualized thought. The expression of ideas is of great value. Yet there is value in taking the next stage and recording these words and thoughts for an audience. Kristin Fontichiaro stated that,

> From time to time, podcasting brings out something remarkably wonderful in otherwise lacklustre students. Or a student struggling with a certain subject area suddenly reveals a moment of clarity while recording a podcast, and the educator knows the delight and relief this will bring to a parent.[81]

Learning through performance activates play and creativity. Through this recognition, podcasting is part of "arts-integrated learning."[82] There are many types, modes and genres of podcast that are appropriate for distinct disciplines.

- Scripted presentation
- Sonic artefact (soundscape or exploratory sonic capture)
- Interview
- Oral History
- Professional development
- Audio tours
- Information literacy programmes

Podcasting is serving a key function in contemporary education, rejuvenating the role of auditory cultures and sonic media which have been traditionally underutilized in teaching and learning. Radio was "the forgotten medium"[83] and an "untapped teaching tool."[84] There has been little discussion of its pedagogical function in the curriculum.[85] However the greatest benefit of audio-only teaching materials is that communication is enhanced through the use of rhythm, pitch, tone and modulation. It is an expressive and affective mechanism to convey interpretation and inflections on material. Podcasting has the advantages of radio broadcasting, through the much more targeted use of the voice for very specific listeners, while also adding the personalization, time-shifting and customization of recorded audio.

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[80] Vygotsky and Kozulin [60], p. 219.

[81] Fontichiaro [21], p. 45.

[82] Fontichiaro [61], p. 3.

[83] Bates [62].

[84] Romero-Gwynn and Marshall [63].

[85] Notable exceptions are the Scottish Council for Educational Technology [64], pp. 24–25 and Durbridge [65].

10.3 Press Play

We should … remember than no machine is a wizard.[86]

Edgard Varese

The iPod entered popular culture through its leisure-based applications. Therefore, significant discursive translations are required to move it from leisure to educational deployments. The impact of the legislative attack on illegal downloaders[87] had an impact. [88] However it also diversified and popularized the uses of the iPod. Its storage capacity allowed the platform to become an alternative way to access media files and the legal download sites gained an audience and market share.

The communication flows around teaching spaces are transforming, but considered decisions need to be made about media platform selection in education. Simply because a technological platform can permit the timeshifting of a teaching moment does not mean that it should occur. The advantage of analogue media is that it is not repeatable, it is distinctive and ephemeral. In terms of developing discipline and motivation in students, analogue media can often be most effective because once the hour has passed, that educational moment has gone and cannot be repeated. To actualize (sonic or visual) content on demand is to suggest that teaching and learning can be distilled to content. The relationship between teachers, students, curriculum and educational media is much more complex and intricate than a content on demand model suggests.

Through the domestication of hardware and software and the simplification of interfaces, power is shifting away from the corporate educational complex. Teachers and students can create, listen and think. They can press record. They can press play. They can press pause and ponder silence. This movement takes power away from educational designers and 'specialists' in educational technology. Salmon, Edirisingha, Mobbs, Mobbs and Dennett confirmed,

> our experience is that the technology is simple enough to put fairly quickly and easily into the hands of most university teachers. This transfer of power from technical specialist to the novice teacher makes a positive contribution to developing resources for student learning.[89]

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[86] Varese [66], p. 20.

[87] For example, Steven Morris from The Guardian reported that the parents of downloaders were becoming target, "Mother faces music for girl's illegal downloads," *The Guardian*, July 21, 2005, p. 13. Similarly, a surcharge to internet users has been proposed to 'manage' illegal file sharing. Please refer to Morris [67].

[88] The PEW Internet and American Life project, in assessing music and video downloading, tracked this transformation and found that "the percentage of internet users who say they download music files has increased from 19 % (measured in a February 2004 survey) to 22 % in our latest survey from January 2005. Still, this number continues to rest well-below the peak level (32 %) that we registered in October 2002," from Madden and Rainie [68].

[89] Salmon et al. [69], p. 9.

The podcast offers new modes of delivering content, but the diversity of functions, genres and modes – far beyond the delivery of a lecture – must be logged, recognised and supported. Nick Mount and Claire Chambers have provided us with a challenge. They realized, “more complex questions are being asked about how media should be used to influence learning for particular students, tasks and situations.”[90] One way to ask these new questions is to let our eyes rest and freshen the potential of sonic media.

Podcasting embodies the great paradox of social media. It appears to hyper-individualize, customize and tailor goods and services, delivering very specific material to consumers / students / citizens. At a time when state-based public institutions and organisations are being abolished or underfunded, such hyper individualism cannot go without critique. John Maxymuk also questioned the value of podcasts and vodcasts because of “the dry nature of the content generally on offer.”[91] But he noted exceptions when presenting information on special collections, music and art libraries. Maxymuk asked whether library materials can be made exciting, believing that they are “more likely to be used by patrons desperately trying to cure insomnia than to find information.”[92] While some basic training in and for sonic media is helpful, any information is boring if presented in a monotone. The key area of improvement in delivery of the voice through media is to inject emotion into the words. A script must come to life, rather than be read as straight prose. Podcasts are not text-anchored, but can start with a well drafted script. At their best, they are a conversation, triggering dialogue, action and transformation from the listener. The key decision is to think about the mobility of content, and the audience for it. Podcasts are like google goggles for the ear. They sort, point, recognise, emphasise and shape. They can reintermediate the information landscape. Perhaps most importantly, sonic media and podcasts build relationships.

The pod-possibilities are expanding. Academics are developing podcasts to deliver audio feedback on assignments and I conduct course reviews through sound. Instead of ticking boxes, I ask students to comment on what they have learnt. I create a mix from their words and upload it to a centralized portal so they can monitor the thoughts of their colleagues as they write the final assignments. It is a sonic snapshot of their semester and helps me improve future learning opportunities. For undergraduate students to press play and hear themselves talking about learning creates loops of reflection and builds connections between old and new knowledge. Intriguingly, as mentioned in the previous section of this chapter, the close-to-invisible area in the sonic media literature is the role of podcasting in doctoral education.

Supervising PhD students is the most important work of universities. It saddens me how often this value is not recognised. It crushes intellectual generosity and the hopes of doctoral candidates. I try – at every opportunity – to create an environment of excitement, optimism, learning and change. The goal is to find new ways to chart

[90] Mount and Chambers [70], p. 45.

[91] Maxymuk [71].

[92] Maxymuk [71].

and validate student development through their supervisory journey. I use the potential of sonic media so that their voices and views are heard. Podcasts in doctoral education offer a wide array of potentials and advantages. They build confidence and motivation and provide a sonic diary of their ideas.[93]

Podcasts have great value in this context. Experience and confidence in spoken English is crucial in the British doctoral system. For most students – including those who speak English as a first language – preparation for an oral examination begins too late. It is often only a week or month before the scheduled defence, that a mock viva is held. For all postgraduates, it is important that speaking about their research is a naturalized part of their entire candidature. Instead, the British supervisory system focuses for 3, 4 or 5 years on the written thesis, but only a few hours preparing for a viva that often determines the difference between a pass and resubmission, or a resubmission and a failure. For all doctoral candidates, a mock rehearsal in the third year is too late. From the first month of the first year, they must become accustomed to speaking about their doctorate in a relaxed and confident way. Podcasts offers a range of options to prepare candidates for an oral examination that recognises strengths and improves on weaknesses.

Our current cohort is the first to enter undergraduate and doctoral programmes with a mature podcasting network in place. Creating a customized podcasting strategy for students in the different levels of our system generates incremental, gradual, supportive and relaxed spaces to talk about research from the start of their enrolment. The sonic strategies can include a dynamic and robust question and answer session. However, a more gentle and ongoing recording of their ideas and results is often a better map of the supervisory process. Paul Hegarty described, just after the arrival of the iPod but before podcasting, “the scholarly fixation on text and textualizing.”[94] The word dominates. The screen captures the words. Instead, sounds bend, twist, settle and move. The “pleasures of the ear”[95] emerge when summoning the audible, the sonic, the sound. Universities can be sonically rich, enlivening voice, views and diversity.

10.4 Press Stop

To communicate well and effectively requires thinking about the purpose of a university and the plurality of audiences that teachers and students must serve. The moment has gone where administrators, managers and teachers can maintain a pure

[93] While my comments refer to doctoral education, some strong studies are emerging about the importance and value of student expression and voice in learning. In their study of an initial teacher education programme, Elaine Khoo, Dianne Forbes and E. Marcia Johnson showed how it operates in terms of differentiated learners, and learning communication and presentation skills. Please refer to Khoo et al. [72], pp. 481–486.

[94] Hegarty [73].

[95] Bendix [74].

model of the university – the pursuit of knowledge for its own sake – at the same time that universities are making a demand on the public purse. With such conflictual pressures, how does a university maintain its relevance?

There are many answers to this question. One is to transform universities into corporate universities: the selling of knowledge and the discovery of data that only has immediate market return. Another option is to disconnect from the market and society completely, a closeted scholarship where the elite talk to other elite without a payoff except in the development of knowledge. That means that the majority of the nation is paying for a university system where they – or their children – gain little from it. The final option is to rethink the relationship between the media and universities. Finding new ways to commit to a widening participation agenda, so that the population that is paying for universities has a chance to directly benefit from them while at all times ensuring the widest dissemination of teaching and research through the use of the media. In an environment where journalism is conflating with public relations, it is important to sell ideas, rather than a product. But sell is the wrong word. A public intellectual must convince, argue and make the case for how our society can be improved.

This is the moment for digital voices.[96] Content between students and teachers becomes collaborative and progressive. Through all the formalities of curriculum, formative and summative assessment, the semi-structured and semi-formal podcasts reveal surprises and spurts of creativity. John Cage's innovation, play and capacity to subvert, invert and challenge gains new life through podcasts, not via silence but with user generated content sound. At this moment in school and university policy where standards have been conflated with standardization, the play between the spoken and written word is important. A voice – from either students or teachers – can intervene. The digital voice has a greater scope and scale for that intervention. Andrew Middleton realized that, "audio is suited to conveying change and differences in thinking, and so invites the listener to be curious, critical and academic."[97] As we enter the second decade of podcasting, the learning objects created in those previous 10 years have a resonance.

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[96] I log the extraordinary and innovative edited collection, Middleton [34].

[97] A. Middleton, "Why audio? Recognising the digital voice," from Middleton [34], p. 11.

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Part III
Playing with Pedagogies

Chapter 11
Practice Play in Learning to Teach: Performing a Teaching Body

Jo-Anne Reid and Denise Wood

Abstract Play is integral to pre-service teachers, building relationships and a sense of community. This chapter investigates the role of play in the formation of a teaching career, with attention to creating confidence in a classroom.

How can we understand the idea of play in learning to teach? Awareness of the nature and value of play in education more broadly seems relatively unproblematic. But learning to teach in pre-service teacher education, particularly since the movement to professionalize teaching, have led to the prioritization of 'theory' over 'practice.' In most forms, teacher education is a process of acquiring propositional knowledge about learning, educational theory, pedagogical approaches and content knowledge in the university setting, and then using that to develop and refine practical knowledge of students and how to teach them in a school placement. Although much of this may be satisfying and enjoyable in its own terms, it is inevitably work that is formally required and assessed, leaving little room or opportunity for pre-service teachers to play with their new knowledge and skills in informal curriculum spaces.

In this chapter, we explore the potential of what we are calling 'practice play' in learning to teach. We see this as a means of assisting pre-service teachers to take up the subject position of 'teacher' in non-assessable 'practice-play' – trying out, trying on and playing with what we see as some of the 'core practices' of teaching[1] – all in the relative safety of a teacher education play space. Drawing from data collected during a longitudinal inquiry into the utility of practice theory in teacher education[2] we analyse images and transcript from a recording made by pre-service teachers while they are 'playing at being teachers' (and learners) to highlight some of the affordances of play for professional education. This data records a group of pre-service teachers practising what we see as just one integrated 'core practice' of primary teaching – 'the handwriting lesson' – before they have even entered a classroom as a student teacher in a NSW primary school. As teachers in this jurisdiction, they will be required to ensure that their pupils can use the endorsed 'NSW

[1] Grossman et al. [1].

[2] Reid [2].

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Foundation Script' to develop a clear and legible handwriting style before the end of primary schooling. While this style of handwriting was one that many of the pre-service teachers had learned themselves in primary school, they were amazed at how different their own handwriting had become in the decade or so since they had last received instruction, and how hard they were finding it to write clearly on paper, let alone on a classroom white board. For this reason, the deceptively simple skill of 'handwriting' became the focus of one of the action cycles in our research inquiry, as we set our students the challenge to revise the correct formation of letters and numbers by teaching each other over a 7 week period immediately prior to their first school placement. This proved to be one of the most successful cycles of the research in terms of student feedback, as it was carried out in the second semester of the first year, when students were already confident with the process we were using in the *Study of Teaching* program, and were relaxed and confident with each other in their groups, and with the recording process that served the dual purposes of data collection for us and evidence of teaching skills development for the students. While the names of students who have given permission for us to use these images and transcript have not been used in our analysis, their contribution as research participants is gratefully acknowledged.[3]

From analysis of this transcript we will argue that the play space we provided for the students served not only as to help them learn the shapes and flow and feel of a particular teaching skill, but that it was also the site of subject formation and the taking up of a professional habitus for the pre-service teachers as their bodies practised the attitudes and dispositions of the teacher, in and through their play.

11.1 Play in Education

As a concept, 'play' sits in binary opposition to the idea of 'work.' In its specification and difference it is inscribed in European cultural traditions as an important and worthwhile *balance* to the labour of work, not as an aspect of it. Play is seen as necessary for both individual ('All work and no play, makes Jack a dull boy') and health ('8 hours work- 8 hours play- 8 hours rest'). The interconnected relationship of work and play has been central to educational thinking since Froebel, particularly in relation to early childhood and elementary education. As Nancy King[4] noted, school is the child's first workplace. Educational play, in the service of children's learning, is understood as needing to take place in a structured environment with functional and intrinsically educative material objects for children to manipulate, examine, and use in the formation of conceptual understandings.

[3] We thank student teachers Kate Hanns and Sheree Brunt for permission to use images from the research.

[4] King [3], p. 262.

As Barrie Thorne[5] outlined in the introduction to her study of the construction of gender among school children, there are four "clusters of meaning" that converge around the metaphor of play, and render it one of the richest concepts for thinking about education and learning. This range of metaphoric uses of the idea of play includes, first, the idea of *play as physical action and activity* (as when we 'play' tennis or hockey, or a musical instrument). 'Play' is also used to refer to a *dramatic performance or ritual* (as in a stage 'play', or 'playing' host for a dinner, or 'playing' the fool).

Wasserman[6] proposed the use of serious play in the classroom, noting that productive play empowered learners to take risks, solve problems, develop deep conceptual understandings, and generate ideas to solve real problems. When playing in learning contexts, learners were able to intuitively discover answers to their own questions, and make choices in the moment that increased their understandings of concepts. Wasserman recognised the way that learning based on play promoted reflection, and provided opportunities for reframing thinking. The pedagogical approach of 'play-debrief-replay' mirrored the reflective cycle described by Schön,[7] and, when supported with constructive feedback, led to deep learner insights. These in turn resulted in actions that were rehearsed, reviewed and replayed to fold in the feedback from others, and from self. Whether the play involved spontaneous learner led activity, or contrived settings with open ended activity, the end result of a 'can-do' learner reinforced the value of play for deep learning. The children in the classrooms described by Wasserman were serious in their work, and fully engaged in the learning. Interestingly, the successful teachers in Wasserman's project openly valued play as essential to both the children's work and their work and showed a capacity for playing alongside the children in the lessons. Play provided valuable learning opportunities.

For the novice pre-service teacher, who faces the task of making sense of and then 'incorporating' the range of information and experience she encounters in her pre-service course into her own practice, learning to teach is a process of gradual and continuous 'becoming' more and more relaxed, expert, professional and effective. It never stops, of course, as teachers are always faced with new classes, changing social environments, curriculum, technologies and resources that must be incorporated in existing practice in order to retain the capacity to teach effectively. At the very beginning of this process, however, a novice teacher must do the work on herself to integrate the ideas and knowledge she meets in pre-service teacher education, and to fashion herself as somebody who is recognisable and identifiable to other people as a 'teacher'. For such a task 'play' of any sort rarely seems an option. Pre-service teachers are therefore likely to have come to view play as something 'trivial', or even outside of the context of the hard work of learning, and certainly not something associated with university study.

[5] Thorne [4], pp. 4–6.

[6] Wasserman [5].

[7] Schön [6].

11.2 Play in Adult Education

Harris[8] based a study of play-based pedagogy in an early childhood teacher education course on the work of Melamed[9] who challenged the demarcation between play and the adult world of work, recognising the way that playful work was something spontaneous and energizing that produced an emotional state of flow. Harris identified five key qualities of play, connecting it with joyful immersion in challenging experiences that had the power to transform the learners she interviewed. Playful learning was relational, supporting interpersonal connectedness and cooperation. It was experiential, founded in active involvement and hands-on tasks. Because play is metaphorical, it allows players to explore different perspectives, and imagined contexts, and test their responses safely. Melamed argued that as play happens, the intuitive side of the brain is called into action. Players use their senses and emotions to spontaneously make new and unexpected connections between stimuli. Play is integrative, developing organically as the players connect and reconnect ideas and actions, and come to see new perspectives as they engage. Finally, Melamed saw playful learning as transformative, because of the opportunities it afforded to challenge the status quo and to affirm and challenge the learner. We have found many of these qualities in the practice play of the student teachers in our study, as we demonstrate here.

Harris and Daley[10] further explored play as a pedagogy in adult learning courses: a pre-service teacher education course and a vocational education course focussed on communication. They posited that play would allow adult learners to increase their social capital, and broaden their capacity to approach new and difficult information with confidence and openness. In the same way that Wasserman described the place of play in the learning of children, Harris and Daley identified that play in adult learning settings offered chances for rich dialogue, shared practice, creative exploration and a sense of community among learners. In Harris' classes the players (pre-service teachers in an early childhood teacher degree) constructed meaning that was personally relevant, expanded their social capital and generated a cohesive learning community. The classes that utilized play-based pedagogy based promoted flexible thinking and openness to new ideas. Play built exceptional performance. Teaching is a messy, complex activity and pre-service teachers express anxiety about taking on the classroom role. Play allows them to rehearse and experiment to create personal platforms for the time they are in the classroom.

11.3 A Context for Play: The Problem of Practice in Teacher Education

Beyond the intellectual work of acquiring the pedagogical content knowledge necessary for any particular area and group of students, there is little time for attention

[8] Harris [7].

[9] Melamed [8], pp. 13–24.

[10] Harris and Daley [9].

to be paid in university courses to the actual craft of teaching. It is this that gives rise to the devaluing of practical skills and craft knowledge for teaching, and leads to the preconceptions that teachers are 'born' rather than 'made,' and that teaching is an art, not a science. As Reid notes:

> Unlike pre-service professionals in other fields like speech therapy, for example, pre-service teachers already know what the everyday practice of teaching looks like, and sounds like, before they enter teacher education. Lortie, like Britzman, saw this as the source of ongoing conservatism in the teaching profession, because this naturalised practice can only really imitate already-existing practices that have been observed, again and again, as a member of a classroom audience. As Lortie (1975) noted, an apprenticeship of observation fails to provide students with access to the teacher's thinking, planning and problem solving 'behind the scenes.'[11]

The assumption that teachers already know what to do, and what works, in classrooms, because they have been in so many, can therefore be problematic for new teachers. Because their observational knowledge about teaching is rarely brought into play in pre-service teacher education, it is rarely critiqued or made subject to discussion, and remains internalized as 'body knowledge' about what teaching is, and what a teacher does. Often it is only 'on prac,' when new student teachers are caught unprepared, anxious or stressed in the workplaces of the classroom, that stereotypical teaching behaviours often emerge, apparently 'naturally', and are again reinforced in the bodies of the learner. As Pam Grossman has argued:

> Due to their relative brevity and inherent discontinuities, teacher education programs rarely serve as strong interventions in the professional lives of teachers. The most salient component for prospective teachers – student teaching – is also the component with which they are already most familiar, by virtue of their own experiences in schools. This very familiarity with the landscape of the classroom, […] which Lortie (1975) terms the "apprenticeship of observation," makes it difficult for prospective teachers to consider alternative visions of teaching and learning.[12]

Grossman asks two important questions that have informed the program on which our study is based. First, she asks teacher educators to think about how "these deeply ingrained lessons from the apprenticeship of observation" can be challenged. Second she asks teacher educators to construct a curriculum that will "develop habits of reflection among prospective teachers and inculcate innovative approaches towards teaching."[13] The idea of student teachers actually studying teaching in this way is an idea that has gradually disappeared from pre-service teacher education over time. What was historically a core teacher education practice of the 'demonstration lesson' followed by student discussion and practice of key skills has disappeared from the pre-service curriculum. Similarly, other forms of studying teaching such as the 'micro-teaching' approach[14] of the 1970s and 1980s have also diminished over time. Our increasing interest in the use of practice theory to inform our

[11] Reid [10], p. 123.

[12] Grossman [11].

[13] Grossman [11], p. 345.

[14] Turney [12].

approach to teacher education[15] at Charles Sturt University, and attention to professional practice elsewhere in the literature,[16] has led to a focus on the study of teaching as a practice. We see this as serving the interests of our graduates who will enter the profession with the experience of working collectively to study practice in the interests of improving it.

Concern with practice has always been important in teacher education, and our current approaches are structured to ensure student teachers are informed of the theories supporting effective classroom management, curriculum design and pedagogy in their on-campus classes, and are then provided with structured 'observation days' in schools at the beginning of professional experience placements. In these placements they practise their developing teaching skills in a setting or classroom, reflect on their practice and work to refine their skills with support and feedback. However, the fact that their teaching 'practice' in these placements is assessed as performance means that students actually have little opportunity to *practise* before they are required to enter into *practice*. This is where the affordances of a teacher education play space for the study and practice of teaching have proven useful. In the next section, we describe the context of this research before examining a transcript from one afternoon session where first year students who were 'playing' at teaching, had the chance to learn through their play.

11.4 Practice Play in the Study of Teaching

Following Grossman and McDonald[17] the *Study of Teaching* initiative at CSU[18] was part of the study of this co-curricular attempt to move toward 'pedagogy of enactment' in a pre-service program. Its focus was on the development of professional identity, engaged commitment and collegial activity among pre-service teachers within the first year of an on-campus program that has traditionally attracted students from disadvantaged rural educational backgrounds. In accordance with a Federal higher education participation agenda, it aimed to enhance the intellectual and community experience of university study for students at greatest risk of alienation and attrition. At the same time, because our students are most likely to be teachers who will return to teach in similar areas of rural educational disadvantage, we were keen to support them in the development of professional judgment[19] in the area of teaching practice, so that they could begin to critique the practices they had observed in their own schooling and challenge the assumptions they brought with them about what good teaching looks, sounds and feels like.

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[15] Kemmis and Smith [13]; Green [14].

[16] Grossman et al. [1].

[17] Grossman and McDonald [15].

[18] Reid [2].

[19] Boud et al. [16].

In their review of 12 studies on literacy and play Roskos and Christie[20] concluded that the opportunity to play provided interactions and experiences that not only promoted literacy activity, skills, and strategies but that also provided opportunities to teach and learn literacy through the interactions themselves. Given the importance of strong literacy teaching for all primary teachers, we used this understanding to inform the design of our action research into the nature and effects of a teacher education program that foregrounded the study of teaching. Working with what we deemed to be 'core practices'[21] for primary teaching (such as reading and discussing texts with children, the handwriting lesson, classroom discussion, explanation of basic concepts of addition and multiplication, subtraction and division), we studied the implementation and response to different iterations of these over a period of 3 years (2011–2013), after which the program was included in the course as part of a subject. Our aim was to provide students with examples or models of practice that might contrast with, complicate, enrich or extend their knowledge of teaching gained in their 'apprenticeship of observation'.

Each week, they were asked to observe and reflect on examples of 'good practice,' note differences from and similarities with what they had seen or experienced in their own schooling or other life experience, and 'deconstruct' and 'approximate' those examples in terms of the educational theories they were learning about in their formal curriculum.[22] They were then asked to plan and carry out, record and reflect on their own 'practice lessons,' where they could *play* the effective teacher they had observed and *practise* the language, bodily comportment and relationships that they had identified as salient. They received instant and regular feedback and coaching towards success in the key parts of the practice they were studying. In this way like coaches preparing them to play a skilled sport, we hoped they would experience in their bodies, and incorporate as habitus, the gestures, movements, tone of voice or phrasing and that would allow them to successfully feel like a teacher. As Dreyfus and Dreyfus[23] have argued, it is the possession of such basic technical knowledge and capacity that allows the continuing development of expertise over time, as beginners gain more and more practice. We argued that with the embodied knowledge of how to use voice and pace to create suspense when reading a story, redirect a question, value and extend a response, or, as we see here, be able to model an endorsed handwriting script correctly, students would find it more easy to start to establish classroom relationships and routines when they entered a school setting, and thus have more 'head space' to improve and learn more, and more quickly, about teaching.

Thus we were seeking to give these novice pre-service teachers an opportunity to practise and develop a set of core teaching skills for literacy before they entered a school or other practice setting. Using a coaching, or skills training model, this can be seen as ensuring that students can practise and refine a small set of skills in some

[20] Roskos and Christie [17].

[21] Grossman et al. [1].

[22] Grossman et al. [1].

[23] Dreyfus and Dreyfus [18].

- Each week, *Study of Teaching* **Working Groups** view a video demonstration lesson of the targeted practice with the targeted student group. They follow a guided reflection sheet to support their articulation of key aspects of the teacher's practices as a model, understand and articulate the teachers' objective in the session, and then collaboratively select appropriate resources, and plan a session that uses the strategies they have identified in the model lesson. A 15 minute teaching session must then be rehearsed, with each student teacher making a roughly equal contribution to its delivery.

- Each week, **Sharing Groups of** three Work Groups combine, and their three practiced lessons are delivered to a practice class of 8-10 peers. This is supported by a **Teacher Mentor**, who records the 3 lessons using a **Flip Video** camera, gives positive feedback and coaching to each of the student teacher teams.

- Each week the **Working Groups** review the videos of their lessons using a carefully-designed evaluation rubric or schedule that highlights those aspects of pedagogy and interpersonal communication that assist teachers to develop effective pedagogical relationships with learners. They outline the actions and awareness they consider need to be improved when they try again the following week.

Fig. 11.1 The *Study of Teaching* process

of the core 'component parts' of the complex and integrated practice that is teaching, in a safe and supported environment (like cricket nets, or a practice green, or a practice match with one's own team). Drawing on ideas from international research in the areas of lesson study,[24] the *Study Of Teaching* initiative was designed to support student teachers to integrate propositional knowledge for and about teaching across foundation and curriculum subjects. In a weekly 2 h co-curricular session, not tied to any one of the four subjects they were studying in each semester, but drawing on the content of all four, they had repeated opportunities to design, practise, review, and re-design teaching episodes in supportive peer settings, mentored by volunteer classroom teachers who attended the after-school sessions. The focus was only on the relational and communication aspects of teaching, which we theorize are core to all successful teaching practice, but which did not require sophisticated curriculum content knowledge from them as first year students – leaving them at ease, and able to 'play' in the space we had provided.

As detailed in Fig. 11.1, a broad regular cycle of action was followed over a 10–12 week semester period, in all iterations of the study, with students forming small Working Groups of four who joined together with others to form larger Sharing Groups through the following process.

Only four cycles, the first, the second, which we draw from here, and two others focusing on explanation of key mathematical concepts[25] were conducted as a sequential follow on with the same group of students over 2 years. All other research cycles were with one cohort in the initial semester of study only. The group of stu-

[24] Grossman et al. [1]; Lewis et al. [19].

[25] Auhl et al. [20].

dents who recorded the video of themselves 'handwriting the Number 5' were in their second session of the program, and were therefore comfortable with each other as members of a working and sharing group, and had overcome any initial shyness, suspicion or skepticism about the value of entering into the play.

11.5 Playing at Teaching: The Case of Handwriting

We have chosen the 'handwriting lesson' as a key exemplar of the power of the 'apprenticeship of observation' in learning to teach. Handwriting lessons have a structure and format that has produced almost an intergenerational understanding of how they are taught. The technologies of sandpaper letters, copy books, lined paper, blackboard/whiteboard/projected fonts and onscreen modelling of letter formation change over time and vary from school to school, according to the age of pupil and system of schooling. But the aim of the lesson is the same: to train and discipline primary school pupils to be able to carry out a particular manual skill with ease and grace. In recent years, even though the NSW Foundation Script remains part of the syllabus of instruction for primary schools in this state, the ubiquity of computer technology means that typing and layout skills are included alongside letter formation, and the handwriting lesson that most of our students experienced as children themselves, is often very different from the weekly routine they remember. However for many teachers, and particularly when teachers are coming to learn about a new group of pupils, observe their capacities and establish norms and expectations for behaviour and interaction in the classroom, a bounded whole-class 'lesson' like handwriting serves this purpose very well. It is therefore ideal for beginners to practise on and once a teacher is comfortable with the routine of such a lesson, it can serve a range of other purposes as well. It can provide a quiet 'calm down' time for teacher and students after a rainy lunch, an exciting school event, or a period of disruption, for instance. It can be used by a teacher to introduce and consolidate regular classroom routines and practices that produce long-term meanings about teacher-class interaction, turn-taking, working individually on shared tasks, or appropriate noise levels for seat work. It can allow a teacher to provide targeted attention to the 'scholarly habitus'[26] and embodied affect produced by the productive discipline and self-discipline that is needed for students to carry out the physical task successfully.

For all these reasons, and because of the regularities and routine of the handwriting lesson as a bounded teaching and learning practice, we chose this as a suitable next step from the focus on reading and questioning in the first research cycle, and introduced it in the second semester of study for students who were already well experienced with the *Study of Teaching* process, and the role they played as learners for their colleagues' practice teaching in this play space. In the first year, the second semester action cycle repeated the process outlined above in Fig. 11.1, but with a

[26] Watkins [21].

change of focus from reading aloud and discussing texts to practising the state-mandated handwriting prior to the students' first classroom placement at the end of that semester. In the second year of the study we kept the same process, but, based on student and mentor feedback about the persistence of uncertainty and lack of expertise in using NSW Foundation script in the classrooms they had entered on their first placement, we changed the practice play environment and raised the challenge for the students for the handwriting sessions.

We set them a much more difficult task than the simple performance and demonstration of correct letter formation that we had asked of groups the previous year. The challenge set for students was that they needed to plan and teach a full 20 min lesson – so that they would all have the opportunity to practise and refine their own handwriting as well as design and practise a whole lesson. The large Sharing Groups would work in a classroom space, and each Working Group would need to prepare all resources and materials. Three 'lessons' each week gave ample time for peer and mentor feedback and discussion, as well as repeated opportunities for students practise 'a handwriting lesson' and refine their skills.

The following transcript is of the first 2 min 45 s of one lesson, 'The Number 5,' taught by a pair of students, in the fourth week of the cycle. It is clear from the transcript of the video tape, which lasted 18 min 17 s, that the students had planned their lesson very carefully, scripting their talk, and preparing a number of resources. During the previous 2 weeks, they had been in the student role for six previous 'lessons,' very few if any of which had managed to successfully keep the Sharing Group engaged in the activity for the required time. Student and Mentor feedback had been clear about this, and the students had discussed the potential for difficult class management issues that might arise in a 'real classroom' if they were given a 20 min lesson that did not last for the allocated time. Some of their peers had improvised with impromptu activities in earlier lessons, but the full video of this lesson shows that these student teachers had structured and sequenced a good range of linked activities, leading to a final reflection and evaluation of the effectiveness of their teaching in the final minutes of their lesson.

11.6 Teaching Bodies at Play: Handwriting the Number 5

The transcript and images from this practice lesson is presented alongside our analytic commentary, which provides both background explanation where necessary, and our analysis of the meanings of the "doings, sayings and relatings" that characterize this particular practice as play.[27] Our aim here is to emphasise the ways in which the situation of play allows the pre-service teachers to bring affective, embodied knowledge, produced in their 'apprentice ship of observation' to more conscious learning about teaching – and act on it as a teacher aiming to assist learners.

We read the transcript first as teacher educators, seeking the teaching point that can be made in the richness of this video representation of practice – observing the

[27] Kemmis and Smith [13].

gesture, the turn of phrase, the eye contact and the evidence of preparation that allows us to think about the effects of these, and to rationalize the effects of a particular practice with our students as we engage in the study of teaching. Reflection on the effects of a particular one of a range of possibilities for action that arise in the moment of practice is the site of integration of theory and practice in our work, where pre-service teachers can make connections with the material they read about and discuss in their academic curriculum, and see why the effects of one course of action on relationships, pupil engagement or learning might make it a preferred possibility at another time.

We then re-read the transcript to provide an analysis the qualities of play evident here, in terms of Harris'[28] claim for the value of play as transformative learning in pre-service teacher education. For this purpose we draw on our earlier discussion of Melamed's[29] five key qualities of play, to argue that these ***relational, experiential, metaphoric, integrative*** and ***empowering*** qualities are all evident in this transcript, and that the provision of such a play space is indeed important for a new sense of teacher education that takes seriously the importance of the body as well as the mind in professional education.

Here we see the transcribed recording of novice teachers taking on the responsibility of teaching their peers the correct formation of 'the number 5' in a way that they could use as a model their own teaching in the future. Our analysis of the embodied, affective and intellectual practice of the students provides an interpretive commentary, while our attribution of each of Melamed's qualities of play to particular sections of the transcript illustrates the presence and nature of each, and does not aim to map the extent or depth of particular qualities.

- **Relational** play supports interpersonal connectedness and cooperation, and is
- **Experiential** when participants engage in shared experiences that are enjoyable and engrossing; pool their own experiences and perspectives; and validate and learn from one another's perspectives.
- **Metaphoric** qualities of play emerge as participants' intuition and creativity come to the fore as they follow their hunches and impulses. Through imagination and non-literal thinking, players transform their immediate realities and create new kinds of social spaces in which to engage and interact.
- Play is also **integrative**, as participants engage in holistic experiences in which there is a strong sense of connectedness to and among people and things; and participants make connections to people, ideas, events, resources and experiences beyond their situation.
- Finally, **empowering** qualities of play occur when participants are able to rise above their perceived constraints and limitations, as play releases them from internal restrictions and conformity in intellectual and social settings

While it is clear that in most of these segments, there is more than one quality of play attributable to the practice.

[28] Harris [7].

[29] Melamed [8], pp. 13–24.

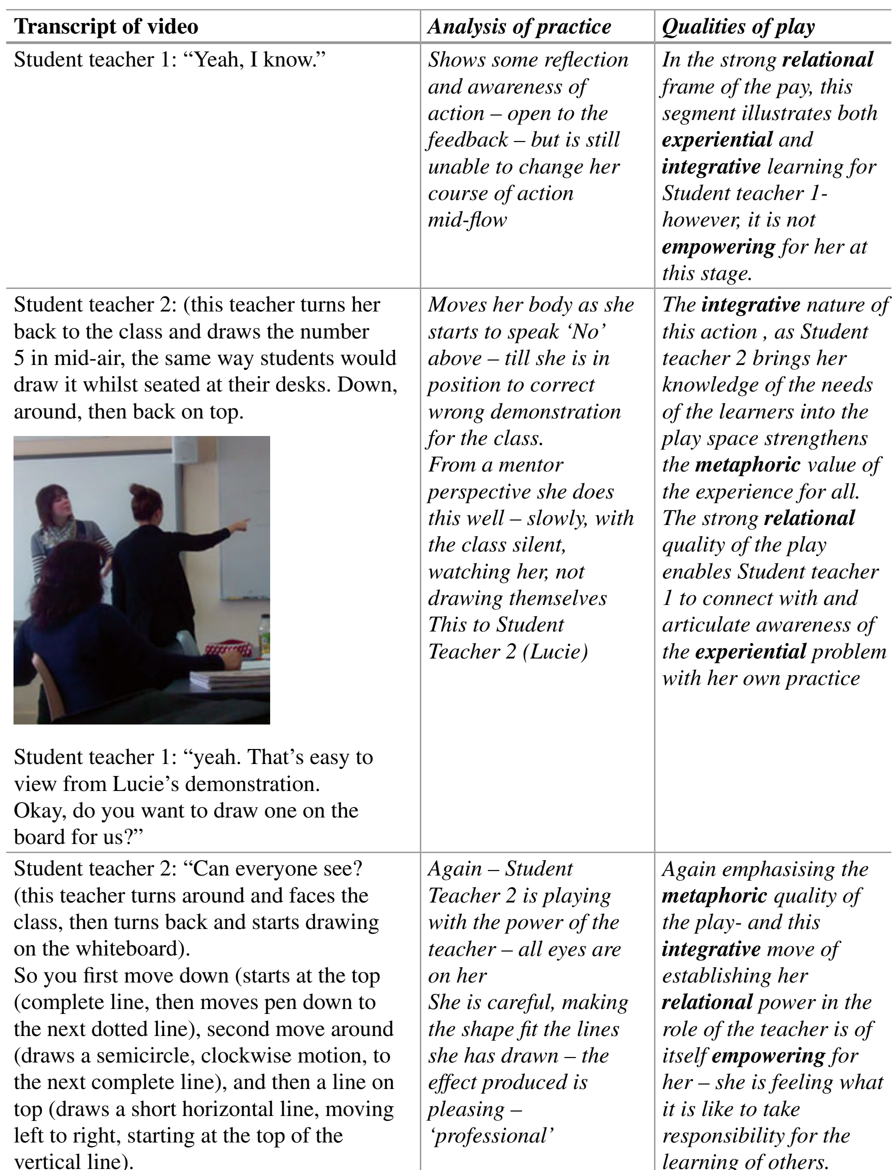
11.7 Handwriting the No. 5

Transcript of video	***Analysis of practice***	***Qualities of play***
0:00 Student teacher 2: writing parallel lines on the white board, every second line is dotted. After this, she hands out blank handwriting sheets. Students at desks pick these up and examine them. Student teacher 1 standing at the front of the class reading her notes: "In today's handwriting lesson we are learning how to write the number 5 (pauses, looks at the class, stretches right hand to the side, then looks back at her notes). Learning how to write the numbers is important because numbers are used in everyday life, everywhere. Can anyone give me any suggestions where you might see the number 5? Where you might use it? Yeah?"	*Imitating models from demonstration, resources and previous practice. She draws freehand – two continuous lines with dotted line in the middle.* *As these become visible on the video we see that they have been prepared in advance with a '5' on the top left hand copied from the syllabus with arrows indicating the stroke sequence to form the number '5' – this is an original contribution to the play – improvising on prior handouts of blank lined paper* *Imitating from observational experience–roleplaying-Script for the lesson has been planned*	***Relational** qualities of play are evident here as two Student teachers cooperatively set the scene for their planned lesson– cooperation , and the other member of the Sharing Group assume a pupil role in relation to their teacherly actions.* *The **metaphoric** nature of this play is obvious as Student teacher 1 constructs an imaginary situation, and encompasses the whole group within it*
Class student 1: "Woolies shopping aisle." Class student 2: "Letter boxes." Student teacher: "Yeah. Anywhere else guys?" (again, gestures by outstretching her right arm to the side, then forwards to indicate to the class student that they can respond). Class student 2: "Number plates, building numbers." Class student 3: Laughs slightly then says "Okay Mitch" The whole class has a chuckle Student teacher 1 (right arm in front, palm facing upwards, facing class) "where in class might we use it?" Class student 2: "Rulers" Student teacher 1: "Yep" Class student 4: "Clothes" Student teacher 1: "Yeah" (right hand moves behind neck) Class student 5: "Didn't know that one." Class student 2: "Number of people."	*Peers raise hands to offer response, quickly joining in the game and playing the role of students.* *'Guys' is a colloquialism that many schools report is inappropriate for classroom teachers* *A tone of engagement is evident, as Student 2 continues to play the role of enthusiastic student.* *Peers enter into the role-play – 5 of other 9 students in this sharing group participate in this segment- and all go on to work on the handwriting practice sheets during the lesson*	*The student teachers all take up the **experiential** nature of this play, accepting the **metaphorical** context and entering into the **relational** dimensions that allow the metaphor to be maintained.*

(continued)

Transcript of video	***Analysis of practice***	***Qualities of play***
Student teacher 1: "Now to draw the number 5… we first start by drawing (Left arm raised above head), Sorry, this will be the opposite (smiles) to this, a line down (uses her left index finger to draw a line in mid-air… Student says "no" in mock comical voice …around (moves left index finger in semi-circle anti-clockwise motion).... …and we put a little hat on top (indicates this with left index finger), so a line which meets at a right angle. So can everyone try that again, so go down (all class students participate by repeating the teacher's motion of drawing the number 5 in mid-air) around, and a little hat on top.	*Clearly marks a transition in the lesson plan with "Now". This student teacher is left handed. Note students have automatically assumed finger pointing position demonstrated and practiced in earlier sessions, One student in this frame is also left handed. Realises that she is facing the opposite way to the class, but carries on regardless. But while her mind understands this, her body is unable to respond in the action. The Mentor notes this but does not intervene at this point, as one of the 'pupils' does. Students in fact do not copy their 'teacher' but form the shape in the correct way, drawing on their own knowledge and experience. Mentor allows lesson to play on, deciding to use this as a point for discussion/reflection after the lesson.*	*There is a doubling of the **relational** nature of this play, as Student Teacher 1 talks to her 'class' and shows her own **integrative** apprehension of the inappropriateness of her stance within the play – and her pupil echoes this, reinforcing the **relational** quality of the encounter*
Student teacher 2: "***No***, we are going the wrong way	*Chooses to Intervene and give a correct model rather than let it go - it matters to her that this play is not empty of meaning*	*At this point, as the **integrative** nature of Student Teacher 2's awareness of the world beyond this situation comes to the fore, the play allows her to make an **empowering** movement that allows her to demonstrate both knowledge and capacity*

(continued)



Transcript of video	***Analysis of practice***	***Qualities of play***
Student teacher 1: "Yeah, I know."	*Shows some reflection and awareness of action – open to the feedback – but is still unable to change her course of action mid-flow*	*In the strong **relational** frame of the pay, this segment illustrates both **experiential** and **integrative** learning for Student teacher 1- however, it is not **empowering** for her at this stage.*
Student teacher 2: (this teacher turns her back to the class and draws the number 5 in mid-air, the same way students would draw it whilst seated at their desks. Down, around, then back on top. Student teacher 1: "yeah. That's easy to view from Lucie's demonstration. Okay, do you want to draw one on the board for us?"	*Moves her body as she starts to speak 'No' above – till she is in position to correct wrong demonstration for the class.* *From a mentor perspective she does this well – slowly, with the class silent, watching her, not drawing themselves This to Student Teacher 2 (Lucie)*	*The **integrative** nature of this action , as Student teacher 2 brings her knowledge of the needs of the learners into the play space strengthens the **metaphoric** value of the experience for all.* *The strong **relational** quality of the play enables Student teacher 1 to connect with and articulate awareness of the **experiential** problem with her own practice*
Student teacher 2: "Can everyone see? (this teacher turns around and faces the class, then turns back and starts drawing on the whiteboard). So you first move down (starts at the top (complete line, then moves pen down to the next dotted line), second move around (draws a semicircle, clockwise motion, to the next complete line), and then a line on top (draws a short horizontal line, moving left to right, starting at the top of the vertical line).	*Again – Student Teacher 2 is playing with the power of the teacher – all eyes are on her* *She is careful, making the shape fit the lines she has drawn – the effect produced is pleasing – 'professional'*	*Again emphasising the **metaphoric** quality of the play- and this **integrative** move of establishing her **relational** power in the role of the teacher is of itself **empowering** for her – she is feeling what it is like to take responsibility for the learning of others.*

(continued)

Transcript of video	***Analysis of practice***	***Qualities of play***
Student teacher 1: "So there's three steps to drawing a 5 (turns to second page of notes, whilst Student teacher 2 continues to draw another '5' on the white board). Now everyone knows our little saying, so can everyone say it together, 1, 2, 3, 4 (said quickly), yeah?" The whole class (including teachers, then recite in loud voices): "1, 2, 3, 4 are your feet flat on the floor? 5, 6, 7, 8 is your back nice and straight? 9, 10, 11, 12 this is how your pencil's held."	*A shared meaning and understanding built from time together in this game – Student Teacher 1 uses this to establish solidarity with class – successfully… All members of the Sharing Group are playing the role – sharing the game. (Several students later reported that they used this rhyme on their first placement)*	*The **experiential** pleasure and engagement of all students in this segment serves to reinforce the **relational** connectedness and cooperation of all those involved in the play*
Student teacher 1: Good work everyone, okay, so we are just going to hand out a few worksheets which we'd like you's to fill out" Student teacher 2: "So you would start with just a plain sheet with only fives on it, there's um…" Class students start sorting out the sheets handed out to them earlier. 2:45	*Student teacher 1 has the gist of what is meant to happen at this stage in the lesson (learned from her own 'apprenticeship of observation' perhaps).... But her partner again moves to clarify an inadequate instruction- gives clearer interpretation of how they might start to 'fill out the worksheets'*	*Student Teacher 1 moves to reinforce the **metaphoric** quality of the play, and consolidate its **relational** and **experiential** qualities Student Teacher 2 again makes an **integrative** move as she extends and clarifies this instruction*

This short segment provides a clear illustration of the affordances of attention to practice in the pre-service curriculum. Our reading of the transcript as a representation of students' practising this regular teaching routine highlights the way in which attention to embodiment in professional education[30] is so useful.

It is the material and affective dimensions of teaching that most strongly structure the 'apprenticeship of observation' as a conservative feature of teacher learning. The smell of crisp new paper, the urge to touch and smooth it on the desk, the pleasure of rhyme and choral chanting, the feel of feet flat on the floor and the absorption of the task of forming beautiful shapes while using a 'correct' pencil grip all evoke embodied memories that appear to be revisited with pleasure by these students. They enter into the performance of their role in the practice play, and they take it seriously, practising the number 5 in a range of different ways for the duration

[30] Green and Hopwood [22].

of the lesson. What is important to us is that when a key player, Student Teacher 1, is unable to *teach* the letter appropriately, the group as a whole moves to intervene, demonstrating the importance of the activity to them all. This movement comes not from their 'apprenticeship of observation' but from the rationales for practice that they have discussed and rehearsed in the *Study of Teaching*.

Forming the number 5 correctly is established very early in this lesson as important. As the teachers lead pupils to practise first 'in the air' before writing on paper, Student Teacher 2 twice intervenes in the first 3 min of the lesson to make sure that the meanings of this lesson about accuracy and care are clearly made. Later in the lesson, when the lesson plan requires the pupils to practise forming the letter and writing its name in a third mode of embodiment (on a white board) the members of this Sharing Group taking the role of pupils remain engaged and eager to practise and extend their skills at this handwriting task. The image below shows representatives from three other working groups, in the role of 'pupils' in this Sharing Group, actively participating in the lesson as designed. There was no evidence on the videotape of any 'pupil' hanging back, or needing to be cajoled into playing the role of a learner during the whole time of the lesson. Nor was their evidence of any disaffected or disinterested learner in this 'pretend' classroom play space.

Right from the beginning of this lesson, when Mitch's exuberance and enthusiastic contributions were noted by his fellow 'pupils,' to the reinforcement segments where 'pupils' are asked to actively engage and publicly demonstrate their increasing proficiency at the handwriting task, these student teachers were fully on task as learners.

11.8 Learning from Play

For Harris,[31] play was important for the learning of pre-service teachers. She noted that play within a teacher education curriculum has important **relational** qualities that nurture relationships and engender a sense of community. As players engage and interact with high levels of synergy, enjoyment, enthusiasm and low levels of inhibition, they converse with each other through pretend and real dialogue in which they explore and reflect on their experiences and understandings. We were aiming for the *Study of Teaching* experience to support our students' transition to university study – to promote a feeling of 'belonging' in the course and in the community of practice that we constructed alongside their academic subjects. The use of a practice play space for this purpose was designed to give students room to find out about themselves and each other as aspiring teachers and as people with whom they would share a transformative experience in their pre-service education.

Mezirow[32] notes that education for any domain of learning which, like teaching, involves social interaction, "calls for an educational approach which focuses on helping learners interpret the ways they and others with whom they are involved construct meanings, ways they typify and label others and what they do and say as we interact with them." Our task is to help learners enhance their understanding of and sensitivity to the way others anticipate, perceive, think and feel while involved with the learner in common endeavours.

In explaining their thesis that play is "training for the unexpected," Spinka, Newberry and Bekoff[33] noted that play enables animals to develop physical and emotional responses to events in which they experience a sudden loss of control: "Play functions to increase the versatility of movements used to recover from sudden shocks such as loss of balance and falling over, and to enhance the ability of animals to cope emotionally with unexpected stressful situations."[34] Their observation that animals often deliberately put themselves in unexpected situations in play by self-handicapping, so that they can experience the loss of control and experience a response to it, underlines the value of the play space for young teachers just starting out on their professional journey to control the teaching space of a classroom. As we have argued here, the experiential nature of 'practice play' in learning to teach appears to have considerable merit as a means of assisting pre-service teachers to take up the subject position of 'teacher' in a holistic, embodied fashion that encourages them to experience and integrate their learning as multi-dimensional. It is important that we continue to provide opportunities for pre-service teachers to try out, try on and play with some of the 'core practices' of teaching in the relative safety of teacher education.

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[31] Harris [7].

[32] Mezirow [23].

[33] Spinka et al. [24].

[34] Spinka et al. [24], p. 14.

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Chapter 12
Outdoor Play: Friend or Foe to Early Childhood Physical Activity?

Challenging the Context of Unstructured Outdoor Play for Encouraging Physical Activity

Kelly Tribolet

Abstract What is the value of outdoor play? This chapter explores the value of early childhood educators providing a curriculum for children to engage in physical activity. While free play has value, it is important to ensure a balanced curriculum so that all children develop the skills and dispositions to lead a healthy and active life.

As more children spend time in education and care services across many parts of the world, early childhood settings are recognised as having a shared responsibility for promoting healthy eating and physical activity.[1] In early childhood services, providing opportunities for children to play in the outdoor environment is considered synonymous with opportunities for engaging in physical activity. Challenging this play-based context for encouraging physical activity is the growing body of international research that shows pre-school aged children in early childhood services often engage in more sedentary activities and participation in physical activity is generally low.[2] However, the definition of physical activity – particularly with regard to level of intensity – is narrow within the obesity discourse evident in these studies. Assuming a broader view of what constitutes physical activity (or active play), my research explores whether children may in fact be more physically active than previous studies have suggested. Using a case study methodology, this chapter examines preschool aged children's level of participation in the active opportunities made available to them during the outdoor play period in two early childhood services. In doing so, this chapter will explore whether unstructured outdoor play may indeed be a legitimate context for promoting physical activity within the early childhood curriculum.

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[1] Schneider and Lounsbery [1]; Department of Health and Ageing [2]; Ward [3].

[2] Reilly [4].

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12.1 Physical Activity in Early Childhood Services

A fundamental aim of early childhood education is to support children to develop the skills and attitudes necessary to lead a healthy and active life.[3] This aim has acquired additional significance considering the increased public health concerns regarding childhood obesity.[4] While the causal factors for understanding childhood overweight and obesity levels are complex, altered dietary patterns and declining levels of incidental and recreational physical activity are commonly identified as contributing factors.[5] Modernisation and changing family dynamics,[6] increased consumption of electronic media[7] and the protectionist paradigm of parents overly concerned with safety[8] have all been identified as contributing to the increasingly sedentary lifestyle of children. As a means of countering this trend toward inactivity, the early childhood setting is viewed as a significant location for establishing healthy habits and promoting physical activity, a place where guiding children to become physically active for life is not only an essential component of the early childhood curriculum, but also an ethical obligation.[9]

In Australia, this obligation is reflected in the recently released National Quality Standards for early childhood services, where quality practice within the area of children's health and safety requires the promotion of physical activity through planned and spontaneous experiences.[10] In early childhood education, physical activity tends to be intuitively recognised as active play[11] and is usually provided in the form of child-directed unstructured (free) play outdoors.[12] It is within this context that children are believed to have the freedom "to be their natural, exuberant, physical and noisy selves"[13] and consequently, an environment where physical activity and motor skill development is considered to occur naturally. The notion that children are inherently physically active during the preschool day has become a conventional wisdom for many early childhood educators,[14] despite emerging research that suggests otherwise.

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[3] McLachlan et al. [5].

[4] Department of Health and Ageing [2], World Health Organisation [6].

[5] Australian Institute of Health & Welfare [7].

[6] Thorburn [8].

[7] Jenvey [9].

[8] Malone [10].

[9] Stork and Sanders [11].

[10] Department of Education Employment and Workplace Relations [12].

[11] Timmons et al. [13].

[12] van Zandvoort et al. [14].

[13] White [15], p. 2.

[14] Brown et al. [16]; Dyment and Coleman [17].

12.2 Physical Activity: A Focus on Intensity

Research into physical activity in early childhood settings has principally been motivated by biomedical and health discourses, as a response to global concerns for childhood obesity. The psychosocial and health difficulties associated with childhood obesity are well documented (low self-esteem, Type 2 diabetes), as is the tendency for obese children to grow into obese adults.[15] As a consequence, these studies seek to determine the amount of time children spend participating in low, moderate or vigorous physical activities through using a variety of objective measurement techniques including specialist equipment such as accelerometers, heart rate monitors and pedometers, and focal-child observation schedules such as the Children's Activity Rating Scale (CARS), the Observation System for Recording Activity in Preschools (OSRAP) and the Observation System for Recording Physical Activity in Children – Preschool Version (OSRAC-P). These methods have allowed researchers to quantify the physical activity levels of pre-school aged children in early childhood services, with results typically focusing on time spent in moderate-to-vigorous physical activity (MVPA). Moderate-to-vigorous physical activities are defined as "any activity that increases the respondent's heart rate and makes them get out of breath some of the time"[16] and are therefore considered important for prevention and health promotion.

Reilly[17] conducted a systematic review of the existing research into physical activity in early childhood services. This review included 12 studies published between 2000 and 2008, and together incorporated data on more than 1900 children across 96 early childhood services within the United States, Scotland, Belgium, Northern Ireland and Sweden. Summarizing the results of these studies, it was concluded that children spent little time engaged in moderate-to-vigorous physical activity (MVPA) and the level of physical activity in early childhood services was generally low. In addition, Brown and colleagues[18] applied the OSRAC-P direct observation procedure to their Children's Activity and Movement in Preschools Study (CHAMPS), which was undertaken in 24 early childhood services in South Carolina. Observational data collected on 476 children during indoor and outdoor play periods showed that the majority of the children's physical activity levels and types of activity indoors and outdoors were sedentary, leading the authors to conclude that their observational study "replicates the findings of investigators who have reported low levels of MVPA in centre-based programs, even during outdoor play."

Similar results have also been found for Australian children by Dyment and Coleman[19] who examined levels of physical activity of preschool-aged children in

[15] Steinbeck [18].

[16] Australian Bureau of Statistics [19].

[17] Reilly [4].

[18] Brown et al. [20].

[19] Dyment and Coleman [17].

Tasmania. The participants were 16 children from four preschools who were observed using the OSRAC-P and CARS observation methods during outdoor play only. Results showed that the preschoolers were engaged in sedentary activities for 46.1 % of the observations taken, and little MVPA occurred. While on a smaller scale than previous studies, these findings supplement the growing body of international research that shows preschool-aged children, contrary to conventional wisdom, are not inherently active during the child care day.

By focusing on MVPA, research has overlooked other physical activities classified as low to moderate in nature. Booth[20] contends that one of the key factors in becoming physically active in childhood is enjoyment of being active. Competency (perceived and actual) in motor skills is the main source of that enjoyment. A key argument to consider is that during low to moderate types of activities, children are developing and refining the motor skills necessary to confidently and competently participate in a range of physical activities throughout life.[21] Therefore, these types of activities should also be considered an important component of physical activity, if promoting healthy, active lifestyles is the ultimate goal.

12.3 A New Perspective for Examining Physically Active Play in EC Services

The existing research concentrates on MVPA as a quantitative measure of children's physical activity levels as a response to public health concerns for childhood obesity. In addition, those studies that utilized an observation schedule as the method of data collection used focussed observations on target children as a representative sample. To "shift the focus off physical activity as a cure for a medical crisis and begin viewing it as an essential and normal ingredient of every child's development,"[22] my research takes a broader perspective in examining physical activity in early childhood services through:

(i) the nature of what constitutes physical activity; and
(ii) the way in which the observational data has been gathered.

My interest is in creating a more expansive understanding of children's participation in the physical activity opportunities made available to them during the outdoor play period.

The nature of what constitutes physical activity within my enlarged definition moves beyond reporting on MVPA to include gross motor activities, demonstrated in children's play at any level of intensity (low, moderate or vigorous), that not only develop health-related fitness components such as muscular strength and cardiovas-

[20] Booth [21].

[21] Gallahue and Cleland Donnelly [22]; Payne and Isaacs [23].

[22] O'Connor [24].

cular endurance, but also a range of fundamental movement skills, including locomotor (actions that transport the body from one place to another), non-locomotor (actions performed in one place) and object control skills (manipulating objects such as balls). Figure 12.1 demonstrates children participating in these types of activities – not all of which would be classified as MVPA but that have been included as being engaged in active play in my study.

In particular, with emerging evidence that "supports the concept that children who are more competent movers tend to be more physically active,"[23] my research values those activities where children are developing and refining motor skills during activity that would be considered to be low-to-moderate in intensity. For example, a child walking slowly along a narrow balance beam, as shown in Fig. 12.2, would be classified as engaging in a low intensity activity. This type of play allows a child to develop, practise and master dynamic balance skills. Stability skills, such as dynamic balance, are an essential component for confidently participating in a range of more physically demanding games and sports.[24]

In this way, I acknowledge the significance of developing motor skills as a way of increasing children's enjoyment of, and participation in, moderate-to-vigorous physical activity, and thereby illustrate the importance of looking at physical activity in a broader context.

Fig. 12.1 Types of activities included as active play (Photographer: Kelly Tribolet)

[23] Robinson et al. [25].

[24] Gallahue and Cleland Donnelly [22].

Fig. 12.2 Example of a low intensity activity (Photographer: Kelly Tribolet)

The second consideration in this new perspective is the method of observation used to collect data. Rather than focusing on target children, who may be either activity seekers or activity avoiders,[25] a method of observation was developed to gather whole group observations that showed collective activity. This observational method allowed for a greater understanding of all children's participation in physically active play opportunities during outdoor play in early childhood services. At each case study site, a series of snapshot observations were collected during outdoor play for 2 weeks. The observations were completed in 10 min cycles for the duration of the outdoor play period. Collecting the observations consisted of systematically scanning the identified active areas and equipment in the playground to map educator locations and behavioural codes, and to observe and photograph children. In addition, unspecified spaces (such as pathways) were photographed and coded when children were observed being active. The remainder of the 10 min cycle was used for documenting observations, using the photographs as visual note taking, to record who was present at the activity (number of boys and girls), what they were doing and what language they were using in their play.

For each observational cycle, the data were coded for

(i) the number of girls and boys present at a particular activity;
(ii) the number of these girls/boys who were engaged in active play at the activity
(iii) if present, each educator's level of involvement in the activity.

For coding purposes, the distinction between children present and children engaged in active play can be explained by using Fig. 12.3 as an example.

In this photograph, three children are using the active play equipment made available to them, in this case a tricycle. This would be recorded as two girls and one boy present at the activity. However, the photograph also shows that only one child is pedalling while two passengers sit in the backseat. Thus only one girl would be coded as engaged in active play. In addition to riding tricycles and scooters, children

[25] Taggart and Keegan [26].

Fig. 12.3 Example of active and non-active children (Photographer: Kelly Tribolet)

were coded as active when their play included activities such as climbing, trampolining, running, jumping, skipping, walking along balance beams or other narrow structures (low fences), dancing, ascending and descending slides, static hang from bars/ropes, using manipulative equipment (for throwing, catching, kicking, striking), pushing equipment (prams, wheelbarrows, trucks), pulling or pushing other children on equipment (swings, scooter boards), and building structures with large blocks. Observations where children were walking between play areas or were passively engaged within the active areas, for example at rest on a climbing structure or sitting on a scooter board being pulled along by another child, were not coded as active.

For each observation day at each case study site, calculations based on the number of children attending the early childhood service (# Chn), the number of observation cycles completed, (# Ob Cycles), and the number of children coded as engaged in active play (Total # Active Chn), were conducted to determine:

(i) the average number of active children for each observation cycle (# Active Chn / # Ob cycles);
(ii) the daily average percent of active children for each observation cycle (# Active Chn / # Ob cycles / # Chn × 100); and
(iii) an overall average percent of children engaged in active play for each observation cycle or 'snapshot' (averaged from daily percentages of active children over the 10 days of data collection)

12.4 Re-Examining Physically Active Play in EC Services

12.4.1 Case Study A

Context This case study site is a transition class for 3–5 year old children within an Independent school in a regional location in New South Wales, Australia. It operates pre-school hours (between 9.00 am and 3.00 pm) with an average of 25 children and three educators in attendance each day. The daily routine includes two outdoor play periods, the first just before lunch for approximately one hour and the other at the end of the day for about half an hour. There were usually two educators in the playground with the children during the outdoor play period. The playground would be considered small and compact and easily supervised from any position. The philosophy of the Director of this service was to provide an outdoor environment that was conducive to physical activity and support specific skill development.

Provisions for Promoting Physical Activity The active outdoor opportunities which were available each day included moveable and fixed climbing frames, wheeled toys such as tricycles and/or scooter boards, and a variety of modified sports equipment for enabling object control skills (such as soccer balls with rebound nets, T-ball stands, basketball hoops or cricket sets). Additionally, on most days, an obstacle course for balancing and jumping was made available, however less frequently, novel items such as parachutes, kites, animal dress-up costumes, jumping sacks, three-legged ties and hobby horses were offered. Each day, a number of provisions that did not encourage physical activity were also available, including sandpit toys, dramatic play props (such as vet surgery, farmhouse, small cars and garage), drawing table, puzzles, book niche, and small construction blocks. Fig. 12.4 provides an example of the environmental map of the outdoor space with the equipment and resources made available to children on one particular day of data collection.

Children's Engagement in Active Play Table 12.1 illustrates children's engagement in active play for each of the 10 days of data collection.

The results presented demonstrate that, on average, one third of children in attendance at the preschool were active during any one observation cycle. The daily averages column in Table 12.1 illustrates a substantial difference in the minimum and maximum scores of children participating in active play during each observation period. This result indicates that children are not consistently participating in those experiences that promote physical activity. For example, observations taken on day 5 show a range of between 1 and 16 children engaging in active play at any one 'snapshot' in time. On this day, the highest numbers of active children were engaged in parachute play, in both child-initiated activity (14 children) and adult-initiated activity (12 children).

Table 12.1 also demonstrates that Day 10 was the day on which the children were most active, with 43.5 % of children participating in active play in *each* 'snapshot'

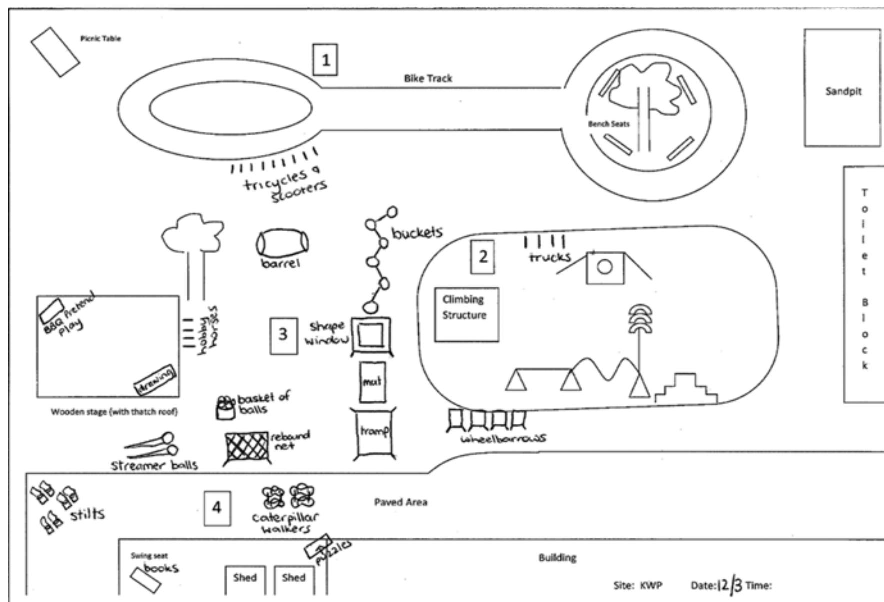

Fig. 12.4 Environmental map for case study A (Day 1 data)

Table 12.1 Children's engagement in active play – case study A results

Day	# Chn	# Ob Cycles	Total # Active Chn	# Active Chn/# Ob cycles Daily Av (min & max)	Daily Av % of Active Chn per Ob cycle
1	22	7	43	6.1 (2–11)	27.9 %
2	28	6	53	8.8 (6–15)	31.5 %
3	28	5	49	9.8 (7–12)	35.0 %
4	26	7	59	8.4 (6–12)	32.4 %
5	26	6	60	10.0 (1–16)	38.5 %
6	22	8	51	6.4 (4–10)	29.0 %
7	25	8	66	8.2 (3–12)	33.0 %
8	23	9	53	5.9 (2–12)	25.6 %
9	26	7	52	7.4 (4–9)	28.6 %
10	23	7	70	10.0 (7–11)	43.5 %

Overall Average % of children engaged in Active Play per 'snapshot' = 32.5 % (min 25.6 % – max 43.5 %)

observation, while Day 8 showed the least activity with only 25.6 % of children engaged in active play. On Day 10, equipment such as the tricycles and scooters, the obstacle course and the music with scarves served as resources that promoted or motivated children to be active. While these resources were well utilized on this particular day, the data set reveals this is not always the case each time the resources are offered. For example, the tricycles and scooters consistently encouraged

participation in active play when available to the children, however, the use of the obstacle course varied from one day to the next. Evidence of this is seen where on one day, the obstacle course was only used by one child in one observation cycle, while on another day, the obstacle course was utilized within all observation cycles with 14 instances of active play recorded. Interestingly, when analysing Day 8 data where children were least active, the tricycles and scooters were not available at all that day, which could have contributed to the lower levels of active play observed.

12.4.2 Case Study B

Context Case Study B is a multi-purpose child care centre catering for 0–5 year old children and offers long day care, preschool and after-school care facilities. This site is also in a regional location in New South Wales and opens between 8.00 am and 6.00 pm. The 3–5 year old children are divided into two classrooms (a 3–4 years and a 4–5 years group) but came together for outside play. Across the two rooms, there was an average of 43 children attending each day, with a total of 10 educators. The daily routine in this service included an outdoor play period in the morning between 9.00 am and 11.00 am. During this time, indoor activities (e.g. morning tea, art experiences in the art studio, and library time) were also available to the children, hence educator availability outdoors varied with between 3 and 8 educators remaining in the playground at any one time. The playground would be considered large and the vision presented by the Director for the outdoor play space at this service was to maintain a close relationship between the children and nature and therefore to develop the outside play area as a garden rather than a playground. This is evident in the outdoor area as it includes a lot of natural features – trees and bushes with meandering pathways linking play spaces. This makes supervision of all children difficult from one location so educators are assigned to designated areas to supervise.

Provisions for Promoting Physical Activity The outdoor environment, shown in Fig. 12.5, has designated play spaces where particular types of equipment and activities for promoting active play were made available to the children. These spaces included a large, grassy open area with a bicycle track and spider-web climbing structure (Area 1), a bark pit (Area 2), a flat concrete amphitheatre (Area 3), and a small softfall zone (Area 4).

Each day, the bark pit included equipment such as large trucks, wheelbarrows, tyres and planks, and movable climbing equipment was set up on the softfall area. On most days, the amphitheatre was used for ball games (such as skittles, rebound net) and occasionally for building sizeable structures with large wooden blocks or ski walkers. On the grassy area, the spiderweb and wheeled equipment were available for some period of time each day during outdoor play. However, as this play space is situated behind the classroom buildings, access to this area was only permitted when a staff member was available to supervise the children. Infrequently, sports

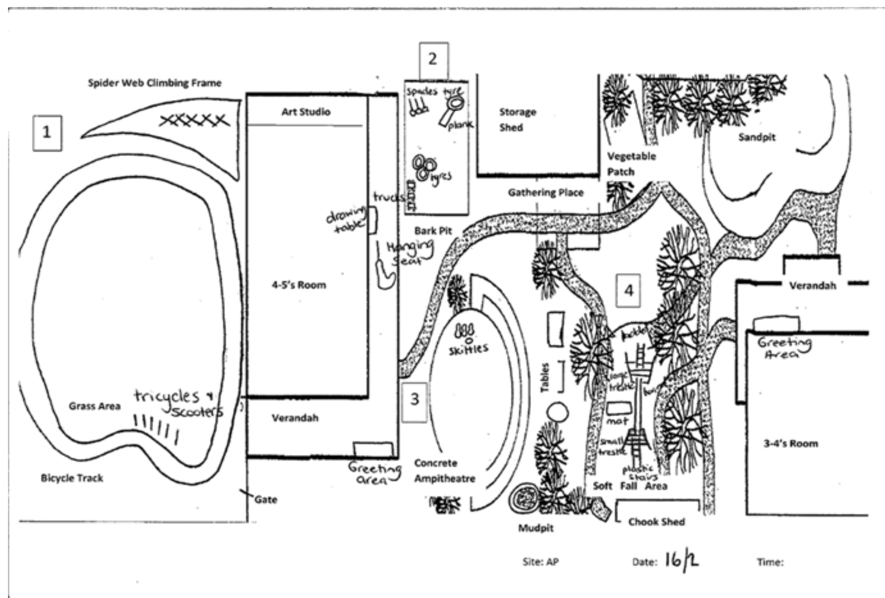

Fig. 12.5 Environmental map for case study B (Day 1 data)

equipment (cricket set, soccer balls), table tennis, stilts and skipping ropes were also available. In addition to time for morning tea, library for small groups of children and the art studio, a number of other passive provisions were available including sand play, drawing table, and mat activities (like books, magnetic letters, and small blocks).

Children's Engagement in Active Play As shown in Table 12.2, the results for this case study site reveal that, on average, only 16.6 % of children in attendance at the early childhood service were active during any one observation cycle.

As in Case Study A, the results presented in Table 12.2 also show a large range of minimum and maximum numbers of children being active in any one observation day. In Case Study B, Day 10 has the largest difference with a minimum of 1 and maximum of 19 children being active in any one observation period. Interestingly, one of the most used pieces of equipment on this day was the spiderweb climbing structure, which was only available to the children for a short period of time. The moveable climbing equipment also provided many instances of active play – however this was not always used in the way the equipment was intended. The highest number of children recorded being active in this area on this day was towards the end of the outdoor play period and consisted of a group of children rolling and pushing the large foam shapes (stairs, wedge etc) around the soft fall area, perhaps indicating a lack of challenge in the way the equipment was originally set up.

Further examples to support this lack of challenge with the moveable climbing equipment can be seen on Day 7 with children adding their own element of risk with

Table 12.2 Children's participation in active play – case study B results

Day	# Chn	# Ob cycles	Total # active Chn	# Active Chn/# Ob cycles daily Av (min & max)	Daily Av % of active Chn per Ob cycle
1	41	12	66	5.5 (2–10)	13.4 %
2	48	12	72	6.0 (3–9)	12.5 %
3	47	11	102	9.3 (5–17)	19.7 %
4	43	11	92	8.4 (2–14)	19.5 %
5	42	12	93	7.7 (2–13)	18.5 %
6	42	7	36	5.1 (1–9)	12.2 %
7	33	11	95	8.6 (4–15)	26.2 %
8	48	12	90	7.5 (1–14)	15.6 %
9	47	12	63	5.2 (0–11)	11.2 %
10	40	11	75	6.8 (1–19)	17.0 %

Overall Average % of children engaged in Active Play per 'snapshot' = 16.6 % (min 11.2 % – max 26.2 %)

the play equipment. This is evident when children took it in turns to lay on top of the foam stairs while other children shook the stairs until the child fell off, children taking it in turns to roll down the wedge and pile on top of each other at the bottom, and children who consistently ran up the slide rather than sliding down. These activities, along with riding balance bikes and tricycles, contributed to this day having the highest average percent of active children across the data collection period. It must be noted that this day also had the least number of children present.

While day 7 was the most active, Table 12.2 illustrates that Day 9 had the least percentage of active children. This could be due to the fact that the equipment that encouraged the most instances of active play on Day 7 were not available for the whole outdoor play period on Day 9. On this day, the bicycle track area was only open for 20 min for the whole play period while the moveable climbing equipment was not set-up until one hour after the outdoor play period began. This seems to have had a dramatic effect on the children's participation in active play.

The equipment made available within a particular play area also seems to have had an impact on children's participation in active play. For example, the bark pit area on Day 6 was set up with large tyres, wheelbarrows and climbing cubes. No children were recorded as using this equipment in an active way. However, on Day 3, when the bark pit area included tyres, wooden planks, spades and large dump trucks, the children were very active in pushing their filled trucks through the bark pit and up and down the ramps they had made with the planks.

12.5 Implications for Pedagogy and Practice

The case study sites described in my research were purposively sampled due to the differentiation in playground size and design, the resources made available for encouraging physical activity, and the philosophy of the service regarding the

purpose of outdoor play for children. The results have shown that an average of 32.4 % of children attending Case Study A and 16.5 % of children at Case Study B were found to be engaged in active play outdoors in any one 'snapshot' in time. This variance supports those studies that have also found the early childhood service to be a strong determinant of physical activity levels of children,[26] with the space available for active play, the equipment provided, and the personal beliefs and practices of educators being identified as contributing factors.[27] My results also demonstrate that while a range of active experiences were provided for children during the unstructured outdoor play period, many children in these early childhood services participated in very little active play when given the opportunity. Of most concern here is that this aligns with previous research despite the differences in my study for what constitutes physical activity and how it was measured.

These findings have significant implications for early childhood pedagogy and practice for the provision of physical activity in the early childhood curriculum. These implications can be framed around educator awareness, the early childhood centre philosophy for outdoor play, and perhaps most importantly the use of a play-based pedagogy for promoting physical activity.

12.5.1 Educator Awareness of Outdoor Play Choices

With a range of provisions made available during outdoor play, educators believe there is ample opportunity for children to engage in active play and develop motor skills. However, my study re-affirms that pre-school aged children engage in limited amounts of physical activity during this time, providing further evidence that children are not inherently active while playing outdoors. In order to engage more children in more active experiences, it is imperative that educators are conscious of children's outdoor play choices, evaluate which experiences will more likely engage children in active play, and realize that while children may be busy outdoors, they are not necessarily being active outdoors.

Additionally, educators need to consider the role they can play in promoting children's activity in the outdoor environment. While I have not addressed educator involvement in my study for this chapter, it is well known that during children's play, educators often adopt a non-interventionist approach.[28] This is particularly evident in outdoor play where educators have typically described their role as supervisory, resulting in minimal adult engagement and participation to the detriment of physical activity and motor skill development.[29] With adult interaction influencing the play patterns of children, the importance of educators considering their role to be more than supervisory during outdoor play is evident with research that shows

[26] Finn et al. [27].

[27] Bower et al. [28]; Dowda et al. [29].

[28] Wood [30].

[29] Brown et al. [20]; Derscheid et al. [31].

children are more involved in physical activity and participate in these experiences for longer when an adult is guiding and participating in the play.[30]

12.5.2 Philosophy for Outdoor Play

In early childhood services, the outdoor environment has become more significant as a learning space with the recognition that societal changes have reduced children's prospects for engaging in outdoor play in their leisure time.[31] This has not only had an impact on children's physical activity opportunities, but has raised concerns about children's disconnection with nature.[32] As such, it has been proposed that the outdoor environment in early childhood services should provide a curriculum that promotes children's interest in nature, as well as encouraging physical activity.[33]

In comparing the philosophy for outdoor play espoused by the directors of my case study sites, it is evident that the outdoor environment served very different purposes. For Case Study A, the outdoor environment was viewed as a place to provide many opportunities for physical activity and for assisting children in developing specific physical skills. This philosophy was congruent with the types of experiences the children had access to while playing outdoors, particularly in respect to the daily provision of modified sports equipment. In contrast, the director of Case Study B was particularly keen for children to connect with nature and purposely endeavoured to create a garden space rather than a playground. The environmental map (Fig. 12.5) of this service clearly demonstrates this philosophy, with the outdoor play space consisting of meandering pathways lined by trees and shrubs, a chicken coop, vegetable patch and mud pit area.

Motivated by the experience of forest kindergartens in Europe, this philosophy is in line with the growing trend of providing natural outdoor play environments for children in early childhood services, resulting in an increased focus on incorporating more nature-like elements (such as dry creek beds, trickle streams, sand, rocks, mud) and landscaping (planting trees, vegetable patches and sensory gardens) within the outdoor play space.[34] However, these features seem to be designed primarily for creating green spaces rather than encouraging active play and in effect may encroach on the space available for providing a range of opportunities to promote physical activity. In fact, studies have identified landscaping features and lack of accessibility to open space as barriers for the provision of physical activity[35] and could provide an explanation of why Case Study B had considerably less instances

[30] Cashmore and Jones [32]; Taggart and Keegan [26].

[31] Little and Wyver [33].

[32] Dowdell et al. [34].

[33] Van Hoorn et al. [35].

[34] Department of Education Employment and Workplace Relations [36]; Elliott [37].

[35] Riethmuller et al. [38].

of active children than Case Study A. This finding advocates the close examination of centre philosophy for outdoor play and for giving careful consideration to the impact this may have in promoting or hindering opportunities for active play to occur, particularly if outdoor play is the main mechanism for providing physically active experiences.

12.5.3 Play-Based Pedagogy for Physical Activity

Educators perceive physical activity to be intrinsic to play, something in which children engage informally and spontaneously,[36] however it has been shown that this is not the case. Play-based learning epitomises contemporary pedagogy for early years curriculum and is emphasised in the Early Years Learning Framework as appropriate professional practice for quality teaching.[37] However, unquestioned assumptions that children learn through play is problematic,[38] particularly when educators view children's play as child-centred activity requiring little intervention.

While preparing the learning environment is required on the part of the educator, unstructured play is characterized by children being able to "choose what they would like to do, given the equipment and space provided."[39] This approach can be problematic for the provision of physical activity, particularly when it has been found that increasing preschoolers' access to outdoor free play time did not result in an increase in physical activity levels.[40] Stephen has advised, that in employing play-based pedagogy, there is:

> a need to guard against practices designed to allow children space to explore tipping over into a laissez-faire approach that removes adults from the learning process once the environment has been prepared.[41]

This idea implies that, again, the role of the adult is an important one. With my study and others showing unstructured outdoor play is not sufficient for effectively promoting physical activity in early childhood services, educators must consider implementing teacher-led structured opportunities to complement these free play periods.

I implore all early childhood educators to contemplate the implications of providing a curriculum where the main opportunity for children to engage in physical activity is through free play outdoors. I am not suggesting that the outdoor environment does not provide rich opportunities for learning in a range of developmental areas, merely that for physical activity, additional thought and planning is required

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[36] Schiller and Broadhurst [39].

[37] Department of Education Employment and Workplace Relations [36].

[38] Grieshaber and McArdle [40].

[39] Gagen and Getchell [41].

[40] Alhassan et al. [42].

[41] Stephen [43].

to ensure a balanced curriculum is provided for *all* children to develop the skills and dispositions required to lead a healthy and active life. This balanced curriculum should consist of structured and unstructured opportunities for indoor and outdoor active play, and perhaps most crucially, a curriculum where educators are as physically engaged in the play as the children.

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Chapter 13
Personal Epistemologies and Pedagogical Play: Changing Practice in Teacher Education

Jae Major and Alison Ayrton

Abstract Teaching in the twenty-first century requires the ability to live with complexity, ambiguity and uncertainty, to be able to hold open possibilities and not look for easy answers to complex issues. Future-oriented teachers will need to be knowledgeable, theoretically grounded, epistemologically aware and professionally reflexive. This chapter demonstrates the impact of playing with pedagogy and understanding how it is shaped by personal epistemologies and ontologies.

Education in the twenty-first century is an endeavour that is complex, ambiguous and shaped by globalization, diversity and new technologies. It is contextualized in neoliberal politics and policies that tend to focus on deterministic notions of teaching and learning. In many contexts, this is reflected in mandatory standardized national measurements including professional standards for teachers and assessments of learning, the results of which are published as league tables both nationally and internationally. While theorizations of the knowledge society and the need to prepare future-oriented teachers pull in one direction, the reductive drive of neoliberalism pushes in a different direction subjecting teachers and future teachers to conflicting messages and tensions both epistemologically and ontologically.

To conceptualize these shifts and transformations, an evocative entree is Jane Gilbert's suggestion that today's teachers need "a new *orientation* to knowledge."[1] This new orientation moves away from understandings of knowledge as fixed, stable and something that exists 'out there' waiting to be discovered. Instead knowledge now needs to be configured as 'networked expertise,' generated and created in collaborative spaces not in individual heads.[2] As such, knowledge becomes active, a verb, something we do rather than something we have. This is a shift from what might be seen as more realist conceptualizations of knowledge towards more relativist conceptualizations.[3]

[1] Gilbert [1].

[2] Gilbert [1].

[3] Major [2].

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The implications for education of this new way of conceptualizing knowledge and knowing are significant. Instead of selecting and packaging knowledge for delivery,

> meeting the needs of learners in the 21st century requires teachers to connect to their learners as individuals, and their communities as partners in the learning process, to be able to listen, observe and identify learners' needs, to design context-appropriate learning processes, to justify their decisions, to assess processes, outcomes and gaps, and to negotiate these competing demands in complex school environments.[4]

Teaching in the twenty-first century requires the ability to live with complexity, ambiguity and uncertainty, to be able to hold open possibilities and not look for easy answers to complex issues. Future-oriented teachers will need to be knowledgeable, theoretically grounded, epistemologically aware and professionally reflexive. Gilbert suggests that initial teacher education for the twenty-first century needs to be personalized to recognise and build on individual skills, to focus on relationship skills, to build programs around 'third spaces' as places for generating new knowledge, and to stimulate significant and ongoing cognitive shifts.[5] We suggest that to achieve this, teacher educators will also need to be knowledgeable, reflexive, theoretically grounded and willing to examine their own personal epistemologies in the light of changing educational landscapes.

In this chapter, we describe and analyse our experiences as teacher educators engaging with new ways of knowing that lead to epistemological shifts and new pedagogical practices in our teaching. Our pedagogical 'playing' was positioned within the context of a teaching and learning research project initiated by the introduction of a new national school curriculum in New Zealand. Acknowledging the partial, contingent, and unfinished nature of knowledge, this chapter aims to explore possibilities rather than answer questions or offer solutions. We start with a discussion of personal epistemologies before describing the context and experiences that challenged our epistemological stances and pedagogical practices. The resulting changes to our practice as teacher educators are discussed along with a reflection on the complexity and challenges of this change process.

13.1 Personal Epistemologies

> Personal epistemological development and epistemological beliefs involve: how individuals come to know, the theories and beliefs they hold about knowing, and the manner in which such epistemological premises are a part of and an influence on the cognitive processes of thinking and reasoning.[6]

Epistemological beliefs include definitions of knowledge, how knowledge is constructed and evaluated, where knowledge resides and how knowing occurs.

[4] Andreotti et al. [3].

[5] Gilbert [1].

[6] Hofer and Pintrich [4].

They determine what and how meaning is made from information and experience, and how learning and teaching are conceptualized.[7]

Research exploring personal epistemology focuses on how the individual develops conceptions of knowledge and knowing, and how these are used in developing their understanding of the world.[8] Early research investigated and developed frameworks related to epistemological beliefs,[9] reflective judgment,[10] ways of knowing,[11] epistemological reflection[12] and epistemological theories.[13] More recently the influence of constructivism has underpinned research that has emphasised the constructed and contextualized nature of epistemic beliefs, and introduced notions such as relational epistemology,[14] links to ontology and an epistemological worldview,[15] and epistemological resources.[16]

Two main strands emerge from this research. One strand incorporates developmental models of epistemological beliefs which generally describe a trajectory that moves from absolutism – where knowledge is seen as objective, certain and unambiguous, to multiplism – where knowledge is viewed as subjective, multiple and open to interpretation, to evaluatism – where knowledge is viewed as relative and evidence based.[17] The stages of development vary in number and name. For example, Baxter Magolda describes four stages for understanding of knowledge: absolutist (certain and from authorities), transitional (uncertain and subjective), independent (constructed and individual), and contextual (dependent on context).[18]

The second strand of research focuses on describing epistemological beliefs as multidimensional rather than developing in stages. Schommer proposes five dimensions of epistemological beliefs (omniscient authority, certainty of knowledge, simplicity of knowledge, speed of learning and ability to learn),[19] which Hofer and Pintrich used to develop a matrix with four dimensions.[20] This matrix is based on the assertion that the **nature of knowledge** and the **nature of knowing** represent the core structure of individuals' epistemological beliefs.[21] Two dimensions of the nature of knowledge are *certainty* of knowledge – the degree to which one sees knowledge as fixed or more fluid, and s*implicity* of knowledge – where knowledge

[7] Bondy et al. [5]; Brownlee [6]; Hill [7].

[8] Magolda [8]; King and Kitchener [9]; West [10].

[9] Bendixen and Rule [11]; Schommer [12].

[10] King and Kitchener [9].

[11] Belenky et al. [13].

[12] Magolda [14].

[13] Hofer and Pintrich [4].

[14] Brownlee and Berthelsen [15], pp. 504–422.

[15] Schraw and Olafson [16], pp. 25–44.

[16] Hammer and Elby [17], pp. 169–190.

[17] Kuhn and Weinstock [18], pp. 123–146.

[18] Magolda [14].

[19] Schommer [12].

[20] Hofer and Pintrich [4].

[21] Hofer [19].

is viewed as either an accumulation of facts or, conversely, as highly interrelated and contextualized. The nature of knowing is defined by the third and fourth dimensions: the *source of knowledge* and *justification for knowing*. Each of the dimensions operates on a continuum, as shown in Fig. 13.1.

Most models of epistemological beliefs suggest a sense of hierarchy or change, with some positions reflecting understandings that are more naive, realist and uncritical, and others reflecting a more sophisticated, relativist and critical orientation.[22] Hofer's continua are based on the notion that shifts in epistemologies reflect movement between more realist and more relativist understandings of knowledge and knowing.[23]

In the context of teaching and teacher education, a range of empirical work proposes that teachers' personal epistemologies influence not only their pedagogical decisions but also their openness to educational reform and further professional development.[24] For example, absolutist or realist teachers tend to perceive teaching as transferring knowledge from teachers as experts to students as naive and passive learners, while evaluativist or relativist teachers promote learning activities in which students collaboratively construct knowledge and are expected to justify their knowledge claims. Personal epistemologies also influence pre-service teachers' approaches to learning, particularly levels of active engagement in knowledge construction and critical analysis.[25]

Studies of changes in epistemological beliefs amongst pre-service teachers suggest that most shift towards more constructivist beliefs during their teacher

Dimension	Continuum		
Certainty of knowledge	Absolute truth	⟷	Tentative and evolving
Simplicity of knowledge	Discrete facts	⟷	Relative, contingent and contextualized
Source of knowledge	Originating outside the self	⟷	Actively constructed in interaction with the environment and others
Justification for knowing	Observation, authority, what feels right	⟷	Evaluation of evidence, expertise, views of experts

Fig. 13.1 Dimensions of knowledge and knowing (Based on Hofer and Pintrich)

[22] Brownlee [6].

[23] Brownlee [6].

[24] Olafson et al. [20]; Schraw and Olafson [21].

[25] Walker et al. [22].

education program reflecting more relativist thinking.[26,27] Changes in epistemological beliefs are often triggered by cognitive dissonance or conflict where existing assumptions are brought into question and new alternatives are accepted as intelligible and useful, and contribute to a more complex view of the world.[28,29] Berger describes the space at the moment of change as a liminal zone.[30] This is the space between our knowing and not knowing. It is here, at the edge of our meaning making and thinking, that we can come to terms with the limitations of our knowing and thus begin to stretch those limits. This transformative space is difficult to understand and negotiate as these spaces are fluid and constantly moving.[31] Experiences of disequilibrium or doubt about beliefs in response to new ideas or alternative views may prompt temporary shifts in epistemological beliefs,[32] but these can be difficult to sustain and are not necessarily reflected in pedagogical practices in the classroom.[33]

We take the view that epistemological beliefs are complex and fluid, shifting in recursive rather than linear ways in response to changing contexts, new knowledge and experiences.[34] We adopt a multidimensional view of epistemological beliefs, and acknowledge that our work as teacher educators is designed to develop pre-service teachers' ideas about knowledge and knowing – their personal epistemologies – towards conceptualizations that reflect a constructivist ontology which we understand to underpin education practices in the Western world. While our work as teacher educators may focus on students' epistemological changes, we are also interested in the epistemological changes teacher educators' experience, what prompts change, and how this impacts practice. In the next section we describe the context that prompted changes for us.

13.2 New Curriculum: New Epistemologies

In November 2007, a new National Curriculum was introduced in the New Zealand education system.[35] The theoretical underpinnings of this curriculum marked a change and development from the previous curriculum, in particular a move away from discipline-based, content-focused achievement objectives as the drivers for teaching decisions towards a more holistic, competence focused approach. This

[26] Brownlee [6].
[27] Sing Chai et al. [23].
[28] Magolda [8].
[29] Hofer [19].
[30] Berger [24].
[31] Berger [24].
[32] Schraw and Olafson [16], pp. 25–44.
[33] Sing Chai et al. [23]; Lim and Chai [25].
[34] Ayrton [26] and Major [27].
[35] Ministry of Education [28].

change was evident in a number of elements of the new curriculum document. Firstly, the document is short: 43 pages plus nine fold out sheets with the achievement objectives for all discipline areas across all levels of compulsory schooling (0/K-13). This is considerably less than the large, weighty curriculum documents for each discipline area that had marked the previous iteration. Secondly, the curriculum document is organised quite differently with the Vision (confident, connected, actively involved, lifelong learners), eight Principles, the Values and five Key Competencies at the very front of the document. The five Key Competencies are central to the curriculum and designed to drive teaching and learning. They are: thinking; using language, symbols, and texts; managing self; relating to others; and participating and contributing. Following the Key Competencies are Essence Statements for each of the eight discipline areas, which describe the core elements and focus of each. Next comes a description of Effective Pedagogy, followed by a discussion of how the National Curriculum is to be interpreted and implemented as a school curriculum. At the very back of the document, are the achievement objectives and learning indicators for each discipline area. This organisation conveys a powerful message about what is valued in the new curriculum, for example, that teachers should organise learning in principled ways starting with the Key Competencies and considering how these can be developed within the disciplines. The third way in which the curriculum signals a changed orientation is in the explicit and implicit references to new ways of knowing and thinking about knowledge. For example: within the vision statement, lifelong learners are described as "active seekers, users, and creators of knowledge."[36] Schools are encouraged to design a curriculum "so that learning crosses apparent boundaries,"[37] and teachers are asked to challenge students to use and apply information, ideas and knowledge in new contexts and new ways.[38]

Alongside the introduction of this new National Curriculum, new conversations were initiated from the influential New Zealand Council for Education Research (NZCER). Jane Gilbert's *Catching the Knowledge Wave*[39] provided a touchstone for conversations about the future of education in New Zealand in many contexts, including teacher education. In 2009, the NZCER set up a website called *Shifting to 21st Century Thinking in Education and Learning*. This site has become a repository for blogs, papers about theories, resources, and a 'shifting thinking' conference and community that continues to actively engage with notions of knowledge and knowing in the twenty-first. At the University of Canterbury, College of Education in 2007, discussions were underway about how to respond to the new curriculum and incorporate it into teacher education programs. A Teaching and Learning Research Initiative (TLRI) project led by three academics gathered together other teacher educators and school advisors to begin conversations about the implications

[36] Ministry of Education [28], p. 8.

[37] Ministry of Education [28], p. 138.

[38] Ministry of Education [28], p. 134.

[39] Gilbert [29].

of the new curriculum for our work. We undertook a series of workshops and seminars to explore the theories and concepts that seemed to underpin the curriculum, and began conversations with NZCER researchers working in this area. These conversations focused on shifting conceptualizations of knowledge and knowing, and were supported by a range of tools that engaged participants in reflections on their personal epistemologies. A key notion was that knowledge could no longer be understood in modernist terms as a product, but was now being seen as a process – a verb. Comparisons were made between twentieth century thinking and twenty-first century thinking, and figures were constructed to model these differences as they were described in literature, and as they related to our own disciplinary interests. For example, Alison used the Fig. 13.2 below, based on Gilbert's work, with her students.

A second tool, a matrix of educational approaches determined by beliefs about the purpose of education and beliefs about knowledge (Fig. 13.3), was used to "help participants engage with the possibilities and limitations of each type of education presented."[40] The matrix reflects dichotomies about the purpose of education, and about knowledge, and can be used to prompt reflection on what education would look like in each quadrant of the matrix.

These and other tools[41] drove our conversations and led us to confront our own changing epistemologies and the implications this had for our pedagogical practice. As we conducted our own research studies, we wanted to engage our students in similar epistemological challenges and reflection in order to help them understand the thrust of the new curriculum, and we committed to finding and trialling pedagogical tools for this purpose.

Research and models of personal epistemologies suggest that teacher education students tend to move from more realist ways of thinking to more relativist ways over the course of their study. In many ways, this was also our experience as teacher educators. We developed a model to help us think about and theorise our conceptualisations in relation to absolute realism and absolute relativism which we placed at either end of a continuum (recognising that this has its limitations). We chose the terms 'contextual realism' and 'contextual relativism' to describe the space between the absolutes. In this space, there is a sense of scepticism in relation to knowledge claims as we reject the 'absolute' ends of the pendulum and find ourselves constantly moving across the boundaries of realism and relativism depending on context. We also acknowledge that these spaces are neither static nor discrete positions that one assumes, rather they describe characteristics that may be present in one's personal epistemology and pedagogical practice to different degrees, at different times and in different contexts.

Our definition of contextual realism is grounded in the concept of cognitive adaptation.[42] Contextual realism is a move away from absolute realism and modernity towards postmodernity where knowledge is understood in the relativist ways

[40] Andreotti and Major [30].

[41] Andreotti and Major [30]; Andreotti and Mario de Souza [31].

[42] Andreotti [32].

Mental Models of Knowledge, Learning and Minds	
Knowledge Age/21st Century Thinking Two key ideas: 1. Traditional disciplinary knowledge is still important – performativity (“...*the ability to take elements from one knowledge system and put them together with elements from another, different knowledge system, re-arranging them to do something new and different. It involves doing things with knowledge*...” (Gilbert, 2005, p8) 2. New models of organising education that allow flexibility, multiplicity and new ideas about ability (intelligence).	**Industrial Age /20th Century Thinking** Two key ideas: 1. The importance of traditional disciplinary knowledge – hierarchical – some disciplines are more important than others 2. The need to sort people – egalitarianism (everyone has a chance)
Knowledge • Is a process • *Does* things – more like *energy* • Happens in *teams* • Can’t be divided up into disciplines • Develops on an *as and when needed* basis • Develops *to be replaced*	**Knowledge** • Is a thing – knowing these topics is important (because it develops the mind in certain ways) • It is like *matter* - knowledge exists before learners learn it. • Resides within individuals and *experts* • Is separated into different subjects or disciplines – different types of knowledge. Some types are harder than others. These harder forms of knowledge can be used to work out who will benefit from higher education and who won’t • Is gained and stored away and is added to, the more you know the ‘smarter’ you are.
Learning • Involves *generating new knowledge* • Is primarily a *group* activity • Happens in real world, problem-based contexts • Should be ‘just-in-time’ • Needs to be *a la carte*	**Learning** • Involves understanding stuff, *storing* it away somewhere, and reproducing it later. Some people are better at this than others • Is mainly an individual activity – it happens in individuals • Is stored ‘*just-in-case’* it is needed sometime in the future • Is ‘en bloc’ and usually prescribed by schools, teachers and assessment systems
Minds • are *resources* that can be *connected* to other resources for the *purpose of generative new knowledge*	**Minds** • are individual processing and storage centres • are viewed as *containers, filling cabinets or databases* – places to *store* knowledge just in case
“Education Systems need to involve approaches that can: • Develop *new knowledge* • Develop *multi-modal literacy* • Foreground the *relationships, connections* and *interactions* between different knowledge systems and different modes of representation • Emphasise *difference* and *diversity,* not sameness and/or one-size-fits-all approaches • Foreground *process* not product • Help learners build a sense of themselves as *active knowledge builders* – as having a unique niche, role and/or point of difference/contribution to make.” (Gilbert, 2005, p8)	

Fig. 13.2 Mental models table from Alison’s teaching (Derived from Gilbert [27])

	One right answer (knowledge is discovered)	**Contingent/multiple answers** (knowledge is socially constructed)
Education 1 Think as I do and do as I say	Education is reproducing sanctioned knowledge.	Education is exploring different perspectives, but the mainstream way is the best way.
Education 2 Think for yourself and choose responsibly what to do	Education is thinking critically in order to reach the 'right' conclusion.	Education is thinking critically about what is right in the context, recognising the implications and limitations of each answer.

Fig. 13.3 Matrix of approaches to education

described above. The implications of this for education are that teachers need to adapt their practices if they are to be effective. The twenty-first century education must prepare people for a 'knowledge society', able to respond to change, generate knowledge and manage it effectively. Teachers, the majority of whom were educated and trained in twentieth century modes and mindsets, must cognitively adapt to understand new ways in which knowledge is generated and managed using digital and traditional media, and to equip learners with skills to manage diversity and uncertainty, complexity and change. Contextual realism acknowledges the need for new ways of knowing, but doesn't question where those new epistemologies come from, or the hegemonic and systemic power relations that underpin and maintain dominant knowledge.

Whereas contextual realism can be thought of interpreting the 'post' in postmodernism as meaning 'after,' contextual relativism interprets the 'post' as meaning questioning.[43] In this orientation and based on Andreotti's concept of epistemological pluralism, contextual relativism questions the system itself suggesting that unless the system is changed, it will continue to "reproduce the same ways of knowing, thinking and relating that created the problems it is trying to solve."[44] This position proposes that in questioning we withhold assumptions and decisions about what should replace the 'old' system. Instead it is necessary to negotiate and renegotiate

[43] Andreotti [32].

[44] Andreotti [32].

our conceptualizations, utilizing the multiple perspectives available in diverse, global societies and by critically engaging with power relations and hegemonic discourses. In this space teachers should re-assert agency by critically engaging with change rather than simply adapting to it. In the next section, we move to telling our own narratives detailing the changes in our personal epistemologies and hence our practices as teacher educators, in relation to contextual realism and contextual relativism.

13.3 Jae's Narrative: Moving towards Epistemological Pluralism through Pedagogy

With a background in teaching English for speakers of other languages (TESOL) and multicultural education, I have long been concerned with preparing teachers to teach for and with diversity and difference. Along with this is recognition of the multiplicity of ways of knowing the world, grounded and reflected in culture and language. From the start of the project, I would have described myself, both ontologically and epistemologically, as leaning towards the post-modern, indeed the poststructuralist, end of the spectrum of beliefs and understandings about knowledge, knowing and being. However, when I examined my pedagogical practices as a teacher educator, I found little that reflected these espoused beliefs and understandings. As I engaged with the tools and in subsequent conversations, it became increasingly obvious that while I might promote to my students relativist notions and concepts about culture and language and pedagogical strategies for primary classroom use, I rarely and only superficially engaged with these in my own pedagogical practices. I did not walk the talk.

To address this fundamental disconnect, I introduced Inquiry as a pedagogical initiative in one course that I taught. Inquiry, as a teaching approach, supports and enacts the notion of knowledge as performative, constructed and generative. It is a well recognised and utilized approach in the discipline areas of science and social studies, and is a process that is grounded in constructivist notions of knowing and learning as active meaning making. Inquiry incorporates elements of learner choice and ownership, connections with learners' life worlds and interests, higher order thinking skills, social interaction, collaborative learning, and multiple perspectives.[45] The use of inquiry as a pedagogical framework in teacher education programs is not new. It has been used as a foil for behaviourist approaches to teacher education,[46] and in multicultural teacher education to prompt pre-service teachers to inquire into difficult issues relating to racism and social justice.[47] In the multicultural studies course that I was teaching at the time, I introduced inquiry as both content (related

[45] Kulthau et al. [33] and Ministry of Education [28].

[46] Zeichner [34].

[47] Sleeter et al. [35].

to the Social Studies discipline area) and pedagogical process. Not only would students have to undertake their own inquiries, they would have to plan to teach Social Studies using Inquiry as the approach.

The Inquiry undertaken by students was driven by school-based scenarios related to the theme of cultural and linguistic diversity. The scenarios related to bilingual education, first language maintenance, inducting new migrant and refugee children and families, understanding the experiences of new migrant and refugee children and families, and school programmes for children with English as an additional language. Each scenario posed a problem in a school context that the students (positioned in the role of teachers) had to research and offer solutions for. For example, the bilingual education scenario read:

> Your school has a large Samoan community and the families are very proud of their language and culture. A group of parents has been asking for a bilingual unit to be established. The principal and the Board of Trustees (BoT) are willing to explore this but need more information about how to make it successful. The community also needs to be informed in order to make a decision about whether it is in the best interests of children. You have been asked to investigate the research about bilingual education and the best model to use. You must present your findings and some recommendations to the rest of the staff at a staff meeting.

The students worked in small groups to choose a scenario and carry out their inquiries. They received input about the principles and process of Inquiry, were provided with readings, and encouraged to access other resources, including people outside the course and the university, to help them address their questions about the issue raised in the scenario. After a few weeks each group presented their findings to the class.

While the Inquiry approach was well received by the students, and the outcomes were pleasing in terms of the learning that was evident in their presentations, I struggled to let go of controlling the process and move my practice towards what we came to call 'contextual relativism.' These struggles are documented elsewhere[48] and only summarised here. As I tried to make sense of my own struggles and the tensions I grappled with in introducing Inquiry into my teaching, I connected to the movement from realism to relativism. The outcome of this reflexive work was the figure below which compares what the course would 'look like' within the framework of different positions which can be thought of as a pendulum or continuum between absolute realism and absolute relativism. The context in which I engaged with these concepts was my pedagogical practice as a teacher educator. The figure below outlines my interpretation of the spaces on the pendulum/continuum in the pedagogical decisions related to learners, content, processes and outcomes.

As I moved away from absolute realism - from certainty of knowledge, from a known and coherent world that is identifiable, describable and understandable in a single unified way – I experienced a sense of loss, of being adrift in a messy, confusing space of partial, contextualized, contingent knowing embedded in power

[48] Major [2].

relations. I opened myself up to continual reflection – a kind of hyper-reflexivity[49] – and self-doubt where I constantly questioned my own position and practice in relation to dominant and hegemonic discourses and ways of knowing. Andreotti describes it thus:

> Within this space, there is a constant productive suspicion towards one's knowing and towards knowledge itself, as there is a recognition that one cannot get rid of modern aspirations and modes of thinking completely as they are constitutive of our being in the world with others in this specific historical time.[50]

I experienced an irreconcilable tension between the realist desire for stable answers to pedagogical problems and the relativist instability of any answer. It was, and remains, an uncomfortable space in which I continue to consider and explore how to enact a pedagogy for epistemological pluralism in higher education.

13.4 Alison's Narrative: Experiencing, Understanding and Enacting Morphs: Epistemic and Ontic Antics

As a primary school teacher in the 1980s and 1990s, I considered I had a constructivist approach to teaching. This approach framed how I interacted with children, parents and colleagues and how I thought about learning and teaching. When I became a teacher educator, this paradigm was severely challenged. The disjuncture between what I believed about how learning happens and how I was expected to teach in the tertiary context caused me some discomfort and I acted to change the courses I taught to enable me to align my practice with my beliefs. However, I had never looked closely at why these beliefs were so important to me until I participated in the TLRI project. As a result of this participation my conceptual world changed irretrievably. I found myself negotiating an unknown space and my perspective on many complex and core concepts was challenged. The process of epistemic shifting was profoundly destabilising, and characterised by feelings of uncertainty, fear, and risk. While I was in this space of uncertainty and ambiguity I could not language what these feelings and experiences represented. Also, it was difficult to reconcile the growing awareness I had of the discrepancy between what I was now thinking and understanding and how I was teaching; there was a distinct and troubling incoherence. I felt as if I was a different person doing the same things which I no longer believed in. I was experiencing a process that I came to understand as 'morphing'.

Piantanida, Tananis and Grubs[51] use the metaphors of a journey and morphing to convey the evolving conceptual nature of trying to understand complex concepts. These metaphors resonated with my thinking and experience of this inquiry and seemed a better fit than the more linear words 'shifting' and 'changing'. The notion of morphing can be described as something that has triggered cognitive

[49] Kapoor [36].

[50] Olivera Andreotti [37].

[51] Piantanida et al. [38].

dissonance or a conflict with epistemological beliefs,[52] a questioning of existing assumptions and crafting new ones to see the world from a more complex perspective.[53] This moving beyond a previously held conception or belief, through an undefined and unfamiliar space and towards a different perspective, is to lose a sense of the former world before the new world is fully articulated.[54] Drawing on Kegan's work,[55] Berger describes such a transformation as more than adding information to a container (your mind), but about changing the very form of the container—making it larger, more complex, more able to deal with multiple demands and uncertainty.[56] As I engaged with the project and its concepts about knowledge and knowing, I felt that I was at the edge of my meaning making and my epistemological world was being transformed. The shape of my mind was transforming and it felt precarious.

The concepts of contextual realism and contextual relativism provided a way of describing and understanding the in-between/morphing space in which I found myself and it helped me to feel more comfortable with the uncertain, fluid and ambiguous nature of knowledge and knowing. It also helped me to think about what might be happening for the student teachers I was working with as I pushed them into a space of uncertainty rather than staying in a more clearly defined comfortable position.

I was teaching in courses that were not specifically curriculum-oriented, meaning that they did not relate to particular discipline areas in the NZC. Rather, the courses reflected a body of knowledge and understandings about teaching and learning processes and how these are reflected in classroom practice. My personal epistemology was moving towards contextual relativism and I needed to align my own practice with these new beliefs. This led me to focus on the broad framework of the NZC, particularly the values, principles, effective pedagogy descriptions, and key competencies, as core elements of the new curriculum that were consistent with my developing epistemological understandings. These understandings were grounded in Gilbert's idea of knowledge as performative; as something that is "a kind of energy, something that does things."[57] I could see this performativity at the centre of the courses I was teaching where student teachers were learning how to put their knowledge about teaching into practice. I could also see that this was occurring not within individuals but in the spaces between the people in the group as they continually negotiated their ideas and understandings of teaching and learning. The relational aspects of knowledge generation were apparent, and as I became aware of this I was able to incorporate strategies to support this in a more intentional way. I felt lucky not to be tied to a discipline area where content knowledge is historically

[52] Perry [39].

[53] Magolda [8].

[54] Belenky et al. [13] and Perry [39].

[55] Kegan [40], pp. 35–70.

[56] Berger [24].

[57] Gilbert [29], p. 75.

what is valued and considered important, potentially locking one into a more realist view of knowledge.

As I better understood the ideological underpinnings of the new NZC, I was concerned that student teachers needed to refocus their practice to reflect the emphasis on the principles, values and key competencies. My approach within this context was driven by my resolve to help student teachers identify and understand their beliefs about knowledge, teaching and learning, and to think about how these might influence their practice within the context of the new curriculum. In order to engage students in actively thinking about their epistemological positions, and to stimulate their thinking about how this might affect their learning and teaching decisions, I introduced a range of new tools into the program. Andreotti and de Souza describe the concept of 'pedagogical tools' as stimuli for reflection rather than as ultimate solutions for teaching and learning.[58] Such tools enable engagement with different perspectives at a more complex level, to affirm the partial and limited nature of knowing and understanding, to provide a way of making explicit the interface between mainstream and emergent thinking through connections with pedagogical practices, and to encourage student teachers to find their own voices and teacher identities.

The pedagogical tools were used as both course content and a learning process. Students used the tools with a view to developing understandings of how new conceptualisations of knowledge might be possible and how these could be applied in their own teaching practice. The main tool used with the student teachers was a comparative figure, drawn from Gilbert's work, characterising mental models of knowledge, learning and minds as represented in twentieth and twenty-first century paradigms (see Fig. 13.2 above).[59] The figure was used to provoke an awareness of the students' tacit knowledge and understandings which were informing their decisions when designing learning experiences for children. This was an interpretive tool that we kept referring to in class as we discussed different ideas about knowledge, teaching and learning. In addition, I introduced concept mapping as a pedagogical tool where students could represent their developing/morphing understandings about knowledge and knowing.

Concept mapping has been established as a useful tool for portraying learners' understandings and for documenting conceptual change.[60] The process originated as a means to understand and represent conceptual changes in children's science knowledge and understanding.[61] A concept map is a diagram which shows how a theme or topic is configured and builds relationships among the concepts.[62] It is constructed using concepts which are hierarchically arranged with linking words or phrases usually written along connecting lines to demonstrate how the concepts interconnect. Qualitative analysis of the relationships and interconnections depicted

[58] Andreotti and Mario de Souza [31].

[59] Gilbert [29].

[60] Winitzky et al. [41].

[61] Novak and Alberto [42].

[62] Novak and Gowin [43].

at different levels of the map reveal an individual's conceptualizations and, if repeated over time, cognitive change.

The pre and post course concept maps completed by my students were illuminating as we investigated the differences in complexity and connectedness of the concepts portrayed. Students explained their maps in interviews and commented themselves on how their understandings of knowledge had changed. This pedagogical tool enabled the students to identify and discuss beliefs and assumptions about knowledge, and this provided a platform for examining practices in terms of epistemological alignment.

Teaching courses in initial teacher education which emphasise 'how' to teach, and explore ideas about 'who' teachers are, more than 'what' is to be taught has given me flexibility to explore strategies and approaches which can assist student teachers to move beyond technicist ways of thinking about teaching and being a teacher. This awareness of the ontological and epistemological nature of teaching, I believe, needs a more privileged position in teacher education programs.

Engagement with the project brought confusion, fear and uncertainty as my conceptualisations of knowledge shifted and morphed. It felt like driving in the fog and brought to consciousness a deep personal awareness of the partiality of the nature of knowledge and knowing. It produced 'wobbles' as my own teaching identity changed.

13.5 Drawing the Threads Together: An Interrupted Pedagogy of Epistemological Pluralism

In this final section, we describe what has happened to our journeys since 2011 and attempt to further elaborate epistemological pluralism in terms of what it might look like in a performative and embodied sense in our pedagogical practice. What is most evident from our engagement with this work is the experience of being in a state of uncertainty and ambiguity as we navigated the spaces between realism and relativism. In a meta-ethnography conducted as part of the TLRI project, Abbiss and Quinlivan suggest that for most participant researchers there was a "constant negotiation and contestation of beliefs about knowledge, teaching and learning."[63] They describe the way in which the project challenged "humanist notions of the rational, autonomous and fixed educator self,"[64] asserting that educators are curriculum decision makers who must "negotiate the contested ways in which their roles as knowers are constituted within micro institutional contexts and within macro policy contexts."[65] The dissonance and epistemological and pedagogical struggles in which we engaged

[63] Abbiss and Quinlivan [44], p. 17.

[64] Abbiss and Quinlivan [44], p. 71.

[65] Abbiss and Quinlivan [44].

were, upon reflection, productive in terms of our identities and practices as teacher educators.

Since completing the project described above, we have both moved institution and country and now find ourselves in New South Wales, Australia. In the process of writing this chapter, we have reflected and discussed how our practice has been further shaped in a new context, and where we now find ourselves in relation to contextual realism and contextual relativism. The education policy and curriculum focus in NSW is quite different to that of New Zealand. Driven in part by national standardized testing of literacy and numeracy, and the reporting of league tables of schools based on the results of this testing, the focus of the State curriculum seems to be firmly on knowledge as a noun; to be taught and performed in discrete and packaged chunks. Teacher education is highly regulated with the AITSL Graduating Teacher Standards, against which teaching degrees are accredited, forming the bedrock of most programs. These standards are described in three core areas – professional knowledge, professional practice and professional engagement and seven dimensions: know students and how they learn, know the content and how to teach it, plan for an implement effective teaching and learning, create and maintain supportive and safe learning environments, assess provide feedback and report on student learning, engage in professional learning and engage professionally with colleagues, parents/carers and the community. The orientation of the standards implies an orientation to knowledge and knowing that also seems to lean more towards realist notions of a fixed body of knowledge to be acquired than acknowledging the complexity and relativity of knowledge and the multiple ways of knowing available in the twenty-first century. In addition to these elements of the macro context, the micro context is that of a regional university with a large distance program that services a teacher education student body that is often described as largely school leavers from low SES families, often the first in the family to attend university, and frequently needing significant support to manage the transition to higher education.

The contextualized and situated nature of teaching in the space between ontological and epistemological realism and relativism has come into sharp focus as we have continued to align our personal ontic and epistemic identities with pedagogical practices appropriate for this new context. We realize the extent to which we have moved 'back' to practices that reflect more realist conceptions of knowing and knowledge, and are in a process of considering how to push back and reclaim contextual relativism as a viable pedagogical place from which to teach. Andreotti describes the educational project as one where (teacher) educators (and by implication the students they teach) are supported to "recognise their own lenses and the implications of wearing them, to understand and see from different lenses, to let go of the need for finding 'the one right lens' and to be able to negotiate and use different lenses in different contexts in ways that are ethical and responsible."[66] This kind of epistemological pluralism is challenging to achieve in practical and meaningful ways in the context of higher education. The ideas below are an exten-

[66] Andreotti [32].

sion of Fig. 13.4, taking the ideas about what teaching might look like in the space of contextual relativism and describing what a practical, performative and embodied pedagogical response might encompass.

Within the framework of approved learning outcomes, course content could be negotiated with students to take account of their prior knowledge and experience. Inquiry approaches would enable students to make choices and direct their focus in ways that reflect what they bring to the course. There is a sense here that students have a hand in designing their own program of learning in negotiation with the lecturer, and in relation to required professional standards. In addition to sharing their own experiences and understandings, students also need to engage with other (subjugated) knowledge and ways of knowing. This should include processes of knowledge creation about becoming aware of and exploring alternative epistemological understandings, knowledge in the twenty-first century, and Indigenous knowledge. Concept mapping is a pedagogical tool that could be employed to assist with this.

With regard to pedagogy, Andreotti, Ahenakew and Cooper[67] suggest that epistemological pluralism might be reflected through the use of metaphors and indigenous pedagogies that emphasise the value of difference and diversity. The 8 Ways approach is an Indigenous pedagogy developed for use in Australian schools and there may be potential for it to be employed as both content and pedagogy in our current context. The aim of such approaches is for students to learn about their own and other ways of knowing and being, so they can identify their lenses and practise seeing the world through a range of different lenses. Critical thinking is a central competency here and would need to form a core process in this approach. Grounding content in real issues and questions related to teaching (such as problem-based learning), and using Inquiry as a means to address those issues and questions not only allows for knowledge generation, but can also examine performativity. This would involve questioning taken-for-granted hierarchies of knowledge and exploring systemic power relations and their effects in different contexts, in order to identify and describe alternative perspectives and actions. This is not easy content to introduce in teacher education, and the possibilities for resistance are high, as student teachers generally want a tool kit for the what and how of teaching, not ways to think about and understand education, knowledge and teaching differently. Engaging metaphors and thinking tools such as those described earlier may encourage students to think in less instrumental ways about teaching and learning, and enhance an ability to be cognisant of the need to develop and use multiple lenses.

The process of examining and articulating our own personal epistemologies within a supportive collegial and theoretically robust framework was professionally and pedagogically challenging but productive. We have both experienced the destabilising effects of complex negotiations of epistemological and ontological understandings. Our changing context has highlighted how difficult it is to continue with this level of uncertainty and complexity amid competing and conflicting demands and expectations.

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[67] Andreotti et al. [45].

	Absolute Realism	Contextual realism	Contextual relativism
Perceptions about learners	Students are 'empty vessels' to be filled with knowledge. Students' job is to engage with new knowledge and reproduce it in their assignments.	Students bring a range of experiences and prior knowledge which must be added to or reshaped with predetermined course content. Students should individually connect with new knowledge to incorporate into their existing frameworks. Students are autonomous thinkers who will come to the right conclusions if new knowledge is introduced in the right way.	Students bring a range of experiences and prior knowledge which provides multiple perspectives on, and starting points for, course content. Students are situated subjects conditioned by the discourses available to them. Providing new/alternative discourses will enhance their epistemic pluralism and ability to think for themselves and choose responsibly what to do.
Course content	Teacher controlled. Focus on authoritative (expert) knowledge. Building conceptual understandings logically and linearly towards predetermined outcomes.	Controlled and negotiated content. Some learner choice. Valuing prior knowledge/experience. Distributed knowledge but hierarchical aspects unquestioned (experts more valued than community).	Controlled and uncontrolled content with a focus on enabling learners to engage with different perspectives. Negotiated content within the context of the course. Placing critical examination of concepts, hierarchies and assumptions at the centre (including prior knowledge and experience).
Pedagogical processes	Knowledge construction via transmission or scaffolding Scaffolding used to enhance student engagement in the construction of known knowledge. Do as I say, not as I do.	Knowledge construction via the process of inquiry. Construction of known knowledge, but with consideration of multiple perspectives (but there is a known right answer at the end). Scaffolding of the process to promote engagement with the content.	Knowledge construction via the process of inquiry. Focus on questioning usual hierarchy & valuing different knowledge. Actively developing spaces for different epistemologies to be enacted/taken up and explored. Constant negotiation of the content to support the learning process.
Expected Outcomes	Understanding of diversity & difference that reflects the lecturer's ideas. Knowledge of right strategies and applications. Controlled outcome - application in planning/teaching context.	Engagement with diversity in order to help minorities 'fit in' the school context. Improved individual ability to choose strategies based on expert knowledge, and evidence (and own experiences, beliefs etc). Controlled outcome - application in planning/ teaching context for assessment purposes.	Relativisation of own knowledge (reflexivity) in order to enable epistemological pluralism. Improved analysis of power relations in wider context, ethical drive to challenge epistemic violence (racism). Preparing students for the uncertainty, diversity and complexity of real life contexts: to choose best strategy according to context. Uncontrolled outcome.

Fig. 13.4 Table of teaching decisions in spaces of contextual realism and relativism

Models of contextual realism and relativism continue to provide a tool to support our ongoing reflexive thinking and talking about our practice. It has helped to highlight the epistemic-ontic gaps that emerge between the teacher educators we think we are (and aspire to be), and what we actually do. New conceptual tools and models enabled us to identify the limitations of our existing epistemologies and consider some new possibilities for conceptualizing differently. As we redesign

teaching programs and courses, there are opportunities to introduce pedagogies and tools that reflect and move us further towards epistemological pluralism and an understanding of knowledge as performative. There is no recipe or magical approach that helps us shift our ways of knowing and being. As the project revealed, it is a combination of approaches and ways of thinking that "support deep engagement with conceptualisations of knowledge, learning and curriculum and enable shifts in understandings and practices that, because they are deeply and philosophically grounded, reflect not just the implementation of different teaching strategies, but more profound and lasting shifts in teacher identities and ways of being and doing – for teacher educators, student teachers, teachers and school leaders."[68]

Our willingness and ability to play with pedagogy is shaped by our personal epistemologies and ontologies. It is much easier and less confronting to play in bounded, known and comfortable spaces, but if we are to help our students live well in the twenty-first century we must challenge ourselves to resignify our subjugated knowledge and identities as knowers and teachers, which will enable us to move into unbounded spaces and explore performative conceptions of knowledge as contingent, contextualized and relative.[69]

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[69] Gilbert [46].

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Chapter 14
"Let's Talk About Something Important. Let's Talk About Me." Life, Community and Culture Through Digital Storytelling

Tara Brabazon

Abstract A great impact of the read-write web is the availability of cheap and simple hardware and software. Digital storytelling software allows students to connect their personal lives and experiences with wider knowledge systems and academic disciplines, moving the self into society.

My father Kevin, at the spritely 87 years of age, has a strategy to manage difficult family conversations about people, politics or religion. Whenever particular topics become too uncomfortable, he responds with a flourish: "let's talk about something important. Let's talk about me." Such a rejoinder is less about ego and more about reducing the disquiet that emerges when confronting emotional issues and disparate views.

Teaching and learning are anchored to many intricate and difficult personal experiences and reflections but must transcend them. Teachers and students – at their most powerful – welcome differences and disquiet, while respecting what we can learn from them. Confrontational knowledge about race, nationalism, colonization, gender and sexuality are integral to learning in and for a multicultural nation. The key question in our Instagram age is how to grasp the textures and filaments of our lives, but also how these threads connect with the wider tapestry of history, geography and knowledge. The pivotal challenge for teachers is finding strategies that motivate students to seek and connect information from the past with their lives in the present. The read write web reveals powerful opportunities for the development of a productive and creative relationship between students and scholarship, ideas and interpretation.

Stories are part of human history. They carry ideas through time. In analogue environments, parents tell stories to their children about rules and responsibilities, offering context and warning. Digitization has transformed how we shape and structure the tragedies and joys of life. Selfies record a special hairstyle, new eye

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shadow or interesting shoes. Instagram marks the minutiae of life and identity for a (small or large) audience.[1] Snapchat performs the ephemera of digitization, sharing and then dissolving a visual message.[2] Downloadable and sharable songs, YouTube videos, photographs, tweets, blogs and Facebook posts assemble a version of a lived self. Through social networking sites such as YouTube,[3] Flickr,[4] Tumblr[5] and Pinterest[6] – the online pinup board – we not only consume stories, but produce them.

Telling stories and sharing experiences are not new. Hardware and software have changed how these stories are constructed and disseminated. Conversely, Kay Teehan argued that students, rather than software, have changed.

> Digital Storytelling is a tool that was created to integrate the newest technology in the classroom. It has proven to be a powerful tool indeed. I believe the reason for its power lies with the type of students we teach each day in our schools. Students today are multi-taskers, creative, and visual learners. They have grown up in a world of multimedia and respond to audio-visual in positive ways.[7]

Teehan wrote these words in 2006. This was the period of the emerging literature about the google generation,[8] digital natives[9] and the changing nature of learning through the read write web. Rebooting assumptions about the generation gap and technological determinism is not an excuse to underprepare for complex and conflictual classroom experiences. What is clear is that software and hardware are now more intuitive with simple interfaces for use,[10] and the price of these products has reduced. Domestic technology can create professional outcomes. When academics work – in a careful and considered way – to translate domestic media into a scholarly environment, the effort may be both productive and stimulating. Assumptions about students and student development are minimized. Collaborations are more authentic and democratic.

This chapter for *Play* investigates digital storytelling as a strategy to connect life with learning and experience with expertise. The link between these states is narrative, enabled by digitization and the domestication of high quality software and hardware. This chapter commences with a discussion of visual literacy, which has a long theoretical history, and then sets photographs in motion – in play – through digital storytelling.

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[1] Instagram, http://instagram.com/.

[2] Snapchat, https://www.snapchat.com/

[3] YouTube, www.youtube.com.

[4] Flickr, https://www.flickr.com/.

[5] Tumblr, https://www.tumblr.com/.

[6] Pinterest, http://www.pinterest.com/.

[7] Teehan [1], p. 3.

[8] Rowlands et al. [2].

[9] Prensky [3].

[10] Smith [4].

14.1 Visuality and Visual Literacy

Our senses – touch, taste, smell, hearing and vision – gather information. Yet the gathering is not – in and of itself – valuable. It is through decoding sensory information that knowledge is gleaned from our daily lives. The great challenge being confronted in schools and universities is the disconnection between digital experiences at home with mobile liminal spaces, and the fixed analogue standards taught and examined in schools.[11] Through schools and universities, particular modes of decoding are valued, assessed, examined and rewarded.[12] As shown by Wood and Reid's chapter in this book, the capacity to hold a pen and create the shapes recognised as cursive writing is an assessed skill.[13] Holding a knife and cutting the crust of bread is not an assessable act. In daily life, it is rare that our senses are isolated, that we only experience sound or vision or smell. The engagement with the world is multimodal. Yet digitization is selective, cutting away smell and taste, thereby reducing the emersion in screen environments.

If there is an Empire of the Senses, [14] then visuality is the colonizer, dominating hearing, touch, taste and smell. Through schooling, visual literacy is taught through reading words. Writing is also a form of visual communication. The digital environment has increased the integration of text, images and sound, navigated through the hypertext link.[15] Therefore, literacy – and literacy education – is extended beyond the typographic. Visual literacies in analogue and digital environments confirm the distinction between seeing and believing. Our eyes are an ideological organ. We see, select and frame a reality that fits into our lived experience and literally cuts out or blocks what makes us uncomfortable. One mechanism to marginalise uncomfortable visual material is to close our eyes. Clichés such as he or she 'sees things' suggests that seeing is not real, but can be personally self-affirming. As John Berger's career has shown, seeing is a literacy, a subjective interpretation of the world.[16]

We frame our world in a way that verifies our ideologies and represses dissent and differences. Teachers frame a world – through curriculum – for students.[17] These frames – these borders and boundaries – matter. They limit, restrict and guard. Photographers capture this significance by choosing particular subjects,

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[11] Sheridan and Rowsell [5], p. 5.

[12] Hadjioannou and Hutchinson [6]. In this article, Hadjioannou and Hutchinson explore how sensory experiences transform into literacy development. They state that, "We live in a world replete with opportunities to engage our senses and interpret our perceptions in ways that are significant to us. This meaning-making process is an important aspect of personal development, but it is also a crucial aspect to literacy development in educational settings, particularly in today's multicultural, multilingual classrooms," p. 1.

[13] Oxbrough and Gordon [7].

[14] Howes [8].

[15] DeSimone and Williams [9], pp. 2459–2463.

[16] Berger [10].

[17] A fine thesis on the role of the 'frame' in pre-service teacher education is Tracy Busse [11].

perspectives, colours and focus. Yet even when particular lighting and subjects are selected, a plurality of visual interpretations is available.[18] The question is how students through their formal education are encouraged to see differently and move beyond personal expression. Such a process requires not only looking, but doing. One of the great strengths of user generated content and the read-write web is that images can be made, and through that process reveal the arbitrariness of visual literacy. Therefore, through the last decade, emerging definitions of visual literacy include not only reading and writing, but the ability to both understand and produce visual texts. Gunther Kress is a leader in this interdisciplinary field.[19]

Visual literacy is our most advanced media literacy. The printed word – even before the Gutenberg Press – required visual literacy to decode back squiggles, dots and lines into standardized, encoded and decoded words and sentences. Similarly, photography predated the moving image. The history of film spans over 120 years.[20] 'Talking pictures' emerged much later in cinematic history.[21] Digitization, particularly carried through YouTube, increases the number of sites in which the moving image can play. YouTube fragments the audience and blurs the division between the present and the past. Images can move through space and time, being recut and discovering new audiences as they move.[22]

Each visual medium is unique, with its own set of codes, building into its own language. Although television has movement and oral components, photographs are silent sources that soak in surrounding meanings. Every photograph offers multiple and contradictory reading choices, as they detach from their context. Photographs are ambiguous. As John Berger suggested, "One can play a game of inventing meanings."[23] There is always a gap between the moment recorded by a photograph and the present moment of looking at a photograph. Digitization has minimized that gap. The space between taking a selfie and viewing it may be seconds. Uploading it for an Instagram audience may only take a few subsequent moments. Yet the longer the gap between taking and viewing, the greater the ambiguity.

Digital storytelling collapses this ambiguity through placing isolated images into a narrative[24] and shapes meaning through editing, sound and a voiceover. Anchorage is provided through personal experience and research. Therefore it is important when introducing digital storytelling to students that teachers ensure that every photograph is given time to resonate, to activate many stories and readings. Every photograph has a story to tell. The primary story is one of survival. A fragment of

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[18] The multiliteracy project is integral to theorizing and understanding this plurality. As an example, please refer to Botelho [12].

[19] Gunther Kress's leadership in this field, exemplified by *Multimodality: a social semiotic approach to contemporary communication* [13].

[20] Fedorov [14].

[21] Fleeger [15].

[22] A fine example of how YouTube can be used in literacy education is Boche [16].

[23] Berger [17], p. 86.

[24] Narrative is important to this meaning making. Edward Branigan captures this role of narrative in his book *Narrative comprehension and film* [18].

the past lives in our present. The dead continue to live through photographs. There is power in a photograph, but it is loaned to it via a camera. While cameras are now embedded in mobile phones, there is potency through the production of images. The camera transforms social relationships. In the analogue era, the verbs used to explain the actions of a camera – such as 'loading' film and 'shooting' a photograph – conveyed aggression and power. In some ways, the mobile phone camera is more insidious. It sits in any social experience and can take (a picture) without permission. Such a change adds complexity to Susan Sontag's maxim that, the photograph "help[s] people to take possession of space in which they are insecure."[25] Instagram and Snapchat are theorized differently when applying her maxim.[26]

Photographs have two roles: to convey subjectivity and to build and perpetuate ideologies. As photography has been democratized, these two functions have intensified. The subjectivity and ideology of photography must be recognised with consciousness and care. When combined into digital storytelling, these mobile photographs do not present reality or a life, but an argument. Digital storytelling is a genre of activism, building personal stories into a desire for social and political change.

14.2 Moving Pictures

The last decade has witnessed the creation and deployment of an innovative range of hardware and software that have enabled digitally literate men and women to make and disseminate new ideas in innovative ways. Often termed digital storytelling, this phrase is becoming increasingly stable in its definition: narratives developed by amateurs, not professionals, and built through the creation and selection of digital objects such as photographs,[27] stills from video footage and sounds. Digital objects that were not previously connected, aligned or tethered are linked by the selection and shaping of a creator and the capacities of software. These 'born digital objects' are shaped into a narrative that presents and resolves an idea, argument or experience. Flexibility is also possible, particularly with regard to length. As with podcasts, the limitations of commercial broadcasting are not considerations within the digital storytelling discourse. Certainly, the techniques of digital storytelling have spread to business: the social activism that was present at the core of its foundation has been diversified if not displaced.[28] Now a mature genre, digital storytelling has leisure, workplace and educational applications. Artists, health agencies and community activists, alongside an array of businesses, can use this genre. Digital

[25] Sontag [19], p. 9.

[26] A first interpretation of Snapchat, with an Sontag resonance is Elizabeth Porter [20].

[27] A strong blog on sourcing copyright compliant photographs is Mark [21].

[28] Nimblepitch is a company that is using the language of digital storytelling, but targeting it towards tourist operators and real estate agents. Please refer to Nimblepitch, http://www.nimblepitch.com/capabilities/digital-storytelling/panoramas/.

storytelling has advantages when capturing the experiences of family and friends, logging important birthdays, weddings and anniversaries. But it is also of great value in education for staff and students. A photographic series can be overlaid by an academic voice-over, making an event, building or idea meaningful for new audiences, including peers, teachers and parents.

Through the last decade, particular characteristics have formed the digital storytelling genre.

- Non-fiction stories about an event, place or person.
- Socially activist.
- Based in personal stories derived from lived experience.
- Composed with still images rather than footage.[29]
- A spoken word voiceover, with music as a secondary accompaniment.
- Short, often under five minutes.
- Expressing content is more important than the calibre of the form.
- Intent more important than abstract determinants of 'quality.'[30]

The last point is an important one. Built on 30 years of popular cultural studies, including theorizations from the Birmingham Centre for Contemporary Cultural Studies and the Manchester Institute for Popular Culture alongside community media theorizations, notions of 'art' and 'quality' are displaced in digital storytelling, reducing the power and importance of gatekeepers and critics. Small audiences, in a careful and compassionate context, generate new modes of community through storytelling beyond reified, abstract and often arbitrary theorizations of quality. The imperative and focus is relevance, connection, community and communication, rather than a separation of art and interpretation, culture and commentary. It is – from its foundation – a democratic process, product and outcome. There is – perhaps without (postmodern) irony – a desire for authenticity.[31] It operates against commodification and the reification of mainstream media.

There is an irony resonating through digital storytelling, particularly when positioning it in universities. Higher education has been, through much of its history, an institution of the elite, the fortunate and the rich. With the widening participation agenda and the creation of new universities outside of global or second tier cities, a greater diversity of students now occupy university classrooms. Joe Lambert recognised the significance of this change and how digital storytelling can both capture and channel it for an audience.

> As I travel around the world, often to universities or other kinds of places of relative privilege, I am drawn to people who are using story to negotiate these distinctions in rank

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[29] As with many of these categories, in practice some video footage can be incorporated into a digital story. Many of the software platforms allow – with ease – the incorporation of moving images. However the principle of using still images is that the narrative is built between the images, rather than assumed through a continuity of camera work. The intentionality of placement of images is part of the genre.

[30] A checklist of some of these characteristics is included in Lambert [22], p. 38.

[31] Lawrence Grossberg described this as "authentic inauthenticity," from Grossberg [23], p. 43.

> and opportunity … People who, though perhaps successful as media storytellers themselves, see in every single person a tremendous potential for sharing insight, for wisdom, for teaching us a bit about what it means to be human.[32]

It takes confidence to give power away to others. Schools and universities are integral to the process of creating, validating and credentialing the powerful, the successful and the rich. Yet by rendering the personal more complex, the political outcomes are more ambivalent and provocative. Knowledge is broadened. Truth is tempered. Reclaiming 'the ordinary' operates against dominant views of progress, success and achievement.

A fine example of how digital storytelling can assist diverse university students in their movement through our degrees emerged during 2014 in the School of Teacher Education at Charles Sturt University. As part of a programme to assist first year students in their transition from school to university, digital storytelling was used to provide motivation, inspiration and aspiration. The transition coordinator, Dr. Lena Danaia, used the question 'Why do I want to become a teacher?' to enable students to reflect on their university experience. The resultant films were remarkable and presented each of the student's backgrounds and the rationale for their study. During a time of increasing surveillance and regulation of Australian teachers, these stories provide a reminder of the gentle yet powerful propulsions that move men and women into the teaching profession.

This single example was evocative, but it is part of a much wider movement. The literature on and for digital storytelling and storytellers is captured through the multiple editions of Joe Lambert's key book: *Digital Storytelling: capturing lives, creating community*.[33] First published in 2003 and disseminating the work from the Center for Digital Storytelling in Berkeley,[34] history, methodologies and ethical considerations are maturing this genre and field. It began as a way to work with local communities through shifting power relations in theorizing authorship.[35] With the attention on authorship and experience, the fear and threat of cultural appropriation and claiming the voice of others remains a constant threat and concern. Therefore robust ethical considerations must be addressed. Particularly potent and important when considering the use of digital storytelling in formal education, the relationship between production and dissemination is discussed overtly and clearly. The making of the digital story is important. Through this process, content can be shaped, media skills gained and abilities to manage and mobilize evidence verified. Learning outcomes can be demonstrated.

After the production of a digital story, the subsequent question is how the project then moves. Does it require an audience and how is this dissemination regulated and managed? The circulation of digital stories is particularly important. As Lambert realized, "the lived experience of people or peoples who have faced systematic

[32] Lambert [22], p. 2.

[33] Lambert [22].

[34] Center for Digital Storytelling, *YouTube*, https://www.youtube.com/user/CenterOfTheStory.

[35] Lambert [22], p. 1.

forms of discrimination and oppression must be honored as authoritative perspectives on their own lives."[36] In other words, consideration and care emerges when moving these private stories into diverse publics. These are intimate and personal stories. The circulation of these stories must be monitored. By embedding these stories into curriculum via focusing on a problem to be solved, personal concerns are framed by scholarship. Movement in thinking is the key. An idea, an experience or problem is resolved, moving an audience into a new way of thinking.[37]

Digital storytelling is not an abstract theory. It is applied knowledge. Rubegni and Sabiescu describe it as "an emerging research and practice area, and focuses on modalities of bridging the gap between research-based innovation and implementation in formal education."[38] To create the best work in this emerging genre, students work through a series of ten stages.

1. Students develop an idea, argument, problem or question to resolve.
2. They storyboard their idea, creating a narrative arc to move an idea from beginning to end.
3. Students define an audience and explore how this group is best reached through the project.
4. Predict, track and map ethical considerations.
5. Create, capture and organise varied media, including photographs, films, audio and sound effects.
6. Select the most appropriate software and hardware.
7. Address all copyright concerns.
8. Explore whether or not a voiceover is appropriate for this project.
9. Titles are written to create the transitions between the disparate sections of the project.
10. Editing and alignment of all media into a narrative and pattern concludes the project.

The goal of this process is to shape and sculpt narratives from the building blocks of digital objects, including sounds, still images, moving images and digitized text. Digital storytelling invests information with meaning, movement and emotion to develop warmth and engagement. It also connects texts with their context. The goal is to find a way to organise knowledge. Problem-based storytelling positions a central challenge or question. This problem gives the propulsion of a narrative. The use of hypertext in digital stories also creates some alternative navigation modes. References and evidence can be presented to verify the data.

The implicit question that emerges from the ten steps in building digital stories is the relationship between the teacher and learner. In digital storytelling, the teacher's role is one of advisor or guide. Jason Ohler describes this function as "a skill manager rather than a media specialist … a guide on the side."[39] Authenticity matters to this process. The technology is important, but it has an assistive role in

[36] Lambert [22], p. 117.

[37] An effective discussion of the role of narrative is Alexander [24].

[38] Rubegni and Sabiescu [25].

[39] Ohler [26], p. xii.

enabling the creation and dissemination of stories. In this case, a teacher is a database of answers to questions that may emerge. Each student's story will be different. They will require different assistance with the structuring and shaping of stories, writing, editing, sound production and the creation and alignment of visual components, alongside the use of citations and referencing.

Guide questions can create a tissue of connectivity – a guided relationship – between teachers and students.

What question or problem will I ask and resolve?
What is my point of view?
What is the origin of this perspective?
How will I balance emotion and argument, experience and expertise?
What parts or components will structure the content?
How will I engage an audience and move them through the narrative?
How will I use my voice and a voiceover?
Will music or sound effects be beneficial?
What relationships will I build between sound and vision?
How will I limit content and time?
Is there a coherent alignment between the beginning and ending, problem and resolution?

Besides teaching staff, librarians also have a key role in digital storytelling.[40] Digital stories hold an evocative outreach role for librarians to explain the role of libraries for students and the community,[41] and revealing the collections that may not be available on the main shelves or revealed through a google search. But librarians can also show how research can be disseminated sonically and visually through digital storytelling. The collection can be accessed and deployed in new ways. The research process becomes part of the story. Digital storytelling allows libraries and librarians to create new ways to discover, retrieve and use content.[42]

There are key moments in the production of a digital story where this 'guide to the side' may be required to intervene. The first and most important teaching task is to configure the guide question. This transforms a shared experience into a problem to be solved. These questions may include:

Why did I decide to become a teacher?
How do I manage privacy in a digital age?
Is my nation multicultural?
Is feminism relevant to contemporary life?
How is climate change effecting my community?

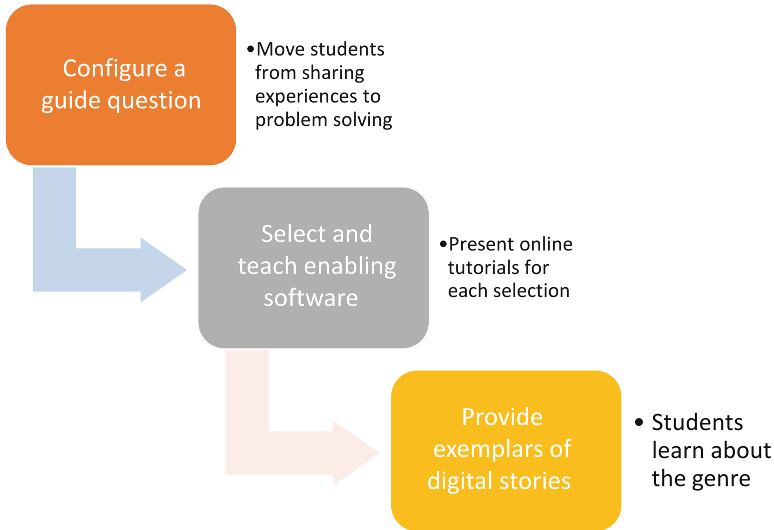
The second decision is how to select and teach the enabling software. An array of online tutorials can be provided so that the students learn in their own time and

[40] An outstanding review of this role is found in Ballew [27].

[41] Fields and Diaz [28].

[42] For example, please view The Department of Hidden Histories, *YouTube*, https://www.youtube.com/watch?v=s1cIu0u8l-Y.

as required.[43] Thirdly, it is necessary to provide a selection of outstanding digital stories, so that students can observe and understand the genre.



From these three initial stages, a more complex process of research and production can be implemented. Many mitigating stages can break down this process into a finer grain, but these seven steps will create a product, and a reflection on the knowledge created.

[43] One example of a tutorial through Digital Storytelling software is from the eLearning Revolution channel, *Digital Storytelling*, *YouTube*, https://www.youtube.com/watch?v=yn0yV3t33fg.

Through such a process, not only can diverse disciplines be accessed (history, media studies, cultural studies, law, information studies, internet studies, sociology), but an array of curricula is aligned. Indeed the process can be disruptive to disciplinary knowledge.[44] One of the great challenges in a highly regulated school and university environment is how to build relationships between what are often disparate subjects. Digital storytelling can be the method for project based learning. Lambert revealed this process.

> Educators from K-12 schools as well as colleges and universities have been an integral part of our practice from the start. The leading proponents of educational technology for project-based learning identified Digital Storytelling as one of the most obvious and effective methods within a broad cross-section of curricular areas. Writing and voice, reflections on civic processes, oral histories, and essays on major subject areas are just some of the ways the work has been integrated into curriculums across grade levels.[45]

Educators have talked up Lambert's challenge. I have found digital storytelling particularly appropriate to assign for student assessment when exploring emotionally and politically volatile topics such as colonialism, terrorism, war, racism and migration. These abstract and controversial ideas can be rendered real and personal, yet also thoughtful and rigorous. Students translate and migrate other histories and experiences into their context and their lives. For migrant communities, digital storytelling can capture and convey stories outside of national narratives.[46] The invisible is rendered visible. Further, Pamela Sullivan and Natalie Gainer show how pre-service teachers use digital storytelling and blogging to integrate literacy throughout the curriculum.[47]

Academics see the world differently. Our gaze is mediated, shaped and translated into scholarly protocols, footnotes and institutional guidelines and regulations. Cameras are a companion on research journeys, capturing evidence, developing memory texts for later referral, creating book covers or images for online articles. While many disciplines deploy photographs to supplement written text, visual ethnography enables writers and researchers to assemble a method and theory for our visual mediations. Anthropology, history, cultural studies, sociology and media studies all provide disciplinary opportunities for new ways of seeing and new ways of thinking. While cultural studies has focused – too often for my taste – on issues of representation, other topics are also worthy of discussion. Sarah Pink has chartered a path through visual research. She sharpens our scholarly eye and connects what we see with what we write. Her second edition of *Doing Visual Ethnography* appeared in 2007. While acknowledging how photography and video are part of our practice, Pink has also probed the hypertextual new media environment.[48]

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[44] For example Bronwen Cowie and Elaine Khoo conducted a project moving between history and tourism at Waikato University in Hamilton New Zealand. Please refer to [29].

[45] Lambert [22], p. 133.

[46] Darvin and Norton [30].

[47] Sullivan and Gainer [31], pp. 178–187.

[48] Pink [32].

An important new subject of development for Pink and many of us inspired by her work is how the use of cameras and audio recorders either enlivens or stifles our scholarship. Does the intuitive interface of web 2.0 software oversimplify the configuration of an interpretation? The pervasiveness of images in our non-academic lives often means that visuality is taken for granted, assumed and naturalized. In creating opportunities to prise open spaces for interpretation, a range of theories can be activated. Intense questions emerge about the right to conduct research, switch on a camera and own and use the resultant footage.

The relationship between the digital storytelling genre and community and the PhotoVoice movement is still in negotiation.[49] Both spring from the font of democratic education. PhotoVoice, by definition, hands the cameras, microphones, hardware, software, voice and views to disempowered individuals or groups.[50] Men and women with disabilities, migrant groups, women and children have all used PhotoVoice to craft a distinctive path through society and culture, presenting views that may be unpopular, but are also distinctive and important. It is part of the participatory media movement, with specific resonance in and for public health. Therefore, PhotoVoice is part of Digital Storytelling, but can be a 'top down' process, where the (more) powerful claim, sculpt and sell the stories of the disempowered, particularly through the proliferation of the software. However it can also be a process whereby the disempowered tell their own stories, revealed through the software. There is also a fertile middle train, of collaboration, investigating diverse subjectivities and roles. The question of power is an important one, particularly when working with men and women with impairments. Elaine Bliss and Janelle Fisher explore how digital storytelling is used – as a participatory research methodology – to investigate the success of Interactionz, a community development programme based in Hamilton, New Zealand. [51] They see digital storytelling as a way, "to document and analyse the organisational transition of Interactionz from a service driven model to a person driven model; and to facilitate the creation of an empowering community narrative for people with disabilities."[52] As with all disempowered communities, the question is who has the right to speak, and whose voice is dominant. In a digital storytelling process, there are multiple moments of power, choice and decision making, involving storyboarding, photography, sound recording and speaking. Therefore, there are very delicate ethical considerations to address in such collaborations. Who decides? Who speaks? Who photographs? Who edits? If men and women with impairments are the 'objects' of study – images in the narratives of others – then the ambivalence of digital storytelling in terms of power and relationships emerges. Such ethical considerations do emerge in PhotoVoice, but there is a greater imperative to hand over the software and hardware to participants.[53]

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[49] Lambert [22], p. 47.

[50] PhotoVoice, www.photovoice.org.

[51] Bliss and Fisher [33], pp. 93–107.

[52] Bliss and Fisher [33], p. 93.

[53] "Inclusive Methodology," Photovoice.org, http://www.photovoice.org/html/inclusivemethodology/.

Negotiations are required. Particular challenges have emerged in the literature, including young mothers,[54] English as a second language learners[55] and indigenous men and women. In the case of colonized people, it is important to ensure visual sovereignty and visual self-determination through the digital storytelling process.[56] Such a discussion is important for all communities confronting oppression, discrimination and theft of intellectual property.

One of these disempowered groups is students. As governments regulate, mandate, test, rank and judge literacy and numeracy standards, school quality, teachers and teaching, the voices and views of students are absent, disempowered or lost as politicians, teachers and parents dominate the educational discourse. Consider the consequences of Lambert's realization.

> What struck me is how a third-grader is prepared for her entry into rank, into a sense of either being advanced, or being left behind. I understood how completely dedicated the dominant system is to this premise. The students are racing to college; some will win, some will lose. Those that lose will be nobodies, and conversely, to be somebody you had better win. This creates monsters out of both categories. Selfish investment bankers and raging gangbangers. Educational reform is the endless attempt at making this unpalatable system seem bearable.[57]

These challenges not only exist in primary and secondary education. The issue of 'under-preparedness' not only emerges in the transition to university,[58] but also with the movement from undergraduate to postgraduate education. A study of a South African university has revealed how a research skill 'gap' can be addressed through digital storytelling to increase retention and target library intervention programmes.[59] Patient Rambe and Shepherd Mlambo stated that

> Since inadequate socialization into postgraduate research and limited supervisor support contribute to the articulation gap and attrition rates at South African universities, digital storytelling (DST) potentially addresses these challenges. DST tends to foreground rigorous research, script writing, collective engagement and public expression of subdued voices to ensure effective participation in higher education.[60]

This strategy not only captures, externalizes and performs the postgraduate journey into higher education, but it then provides a record and pathway through this transitional period for other students. Digital modelling and mentoring emerge. Therefore, experiences are shared and even amidst the isolation of postgraduate research, observations can be shared.

Such competition and ruthlessness has only increased since the global financial crisis, with the expanding numbers in the precariat, a group of 'workers' who will never experience permanence or stability. If Guy Standing is correct in his

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[54] Gubrium et al. [34], pp. 1–11.

[55] Thang et al. [35].

[56] Healy [36].

[57] Lambert [22], p. 3.

[58] Arum and Roksa [37].

[59] Rambe and Mlambo [38].

[60] Rambe and Mlambo [38], p. 11.

theorization of the precariat,[61] and there have been critiques of his argument, then the (too simple) progression from education to the workplace dissipates. Digital storytelling is a potent opportunity to hand back the power and create spaces for alternative modes of speaking, thinking and writing, considering new ways to value learning. The potential and possibilities of education beyond the workplace can be revealed. But such a decision requires both courage and imagination from teachers. With standards and levels of achievement 'measured' by standardized tests, thinking about the curriculum and learning in an expansive and deep way becomes difficult. David Thornburg presented this challenge.

> As these words are being written, the United States is adapting to a new set of Common Core standards that apply to the things all learners should be able to do, no matter where they live. Standards have their challenges, and while the Common Core does not mandate the kind of pedagogical shifts some of us would like, neither does it block them. In this environment, storytelling is even more important as a tool to humanize teaching and learning and to make the learning even more relevant to the students.[62]

Learning requires motivation. Extrinsic motivations from politicians, parents and teachers may create fears of failure and unemployment. Intrinsic motivation fuels curiosity, hope, optimism, creativity and imagination. Content can be owned through anchoring it to a relevant context. Information can become knowledge. Barbara Ganley realized that, "I hadn't known how much my students needed to tell their own stories."[63] This desire for communication is a need for connection, a creative and critical engagement with their own lives, and the relationship with others. There is a passion and electricity that emerges in those rare but potent learning moments where students – and their teachers – situate their personal experiences, hopes and expectations into the broader sweep of history and geography.

There has never been an easier time to use digital storytelling in education. There are so many options for hardware and software. PowerPoint is one choice, perhaps the least flexible and customizable. If presentation software is to be used in the sequencing of narrative, and then automated at the conclusion, then Prezi provides a greater array of options and because its construction moves from a macro view of clustered topics through to a focus on individual sequence of ideas. Other options include Apple's Keynote, iMovie or Window's Movie Maker. Digital scrapbooks provide other alternatives, developing shards of ideas through the combination of digital elements.[64] Blogs, hanging on the content management systems of either Drupal or WordPress, are useful as they enable the embedding of screen shots, sound files and YouTube videos. But intuitive software with precise interfaces such as Magix's Digital Storytelling automate many of the functions, such as synchronizing sound and vision, and offering templates to created polished films from beginners. These films can then be uploaded to YouTube for embedding in an array of websites. From YouTube, privacy functions can also be managed so that students can make

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[61] Standing [39].

[62] Thornburg [40], p. vii.

[63] B. Ganley, "Foreword" from Lambert [22], p. ix.

[64] Computerscrapbook.com provides options for the integration of digital objects into a linear form.

decisions about the size and identity of their audience, from teachers and peers through to a public presentation. Comments can also be controlled, to avoid trolls, bullying and unwelcome and inflammatory abuse.

With the proliferation of mobile phones, almost every event in our lives can be photographed or filmed. The question is how to render such material fresh and relevant for formal education. The software for editing images includes Adobe Photoshop, iPhoto for Apple and – for video editing – Apple’s iMovie, Windows Movie Maker and Magix Photostory. Hosted by YouTube, Google Search Story is a video-creating tool that transforms Google searches into a video presentation. Such a tool has great use for students thinking about and reflecting on their information literacy.

These are simple methods through software to create integrated packages for sound and vision. A possibility, using hardware rather than software, is Fotobox.[65] Looking like a USB stick on steroids, the SD memory card is inserted in one end, with a USB connector on the other. When attached to a computer, the programme runs from Fotobox. Software is resident on the platform. Themed templates are available. Voiceovers may be inserted, pictures edited and background music attached. The resultant videos can be converted into MPEG4 for mobile devices, uploaded to social networking sites or burnt to a DVD.[66] Being based in hardware rather than software, Fotobox moves between computers and is ideal for laptops. There are more professional Photostory options available, but for convenience and mobility, Fotobox is effective. For students in schools and universities who are beginning to create and shape digital material for assignments, this is a fine option.

Photographs can be taken through an array of cameras and phones. Analogue images can be scanned and digitized. Free images without copyright restriction are available from The History Channel, Edutopia, NOVA teachers and the Internet Archive. A diversity of sounds is available from Freeaudioclips.com and the Internet Archive. Examples of already existing digital stories are found at Digitales,[67] the website for the Center for Digital Storytelling,[68] and In the Fray.[69]

While much of the attention in digital storytelling focuses on visuality, sound is also important. While what we see dominates what we hear, listening to the voices and views of others can frame and shape photography and film. The software for editing sound includes the open source Audacity, but there are other options, including Acoustica’s Mixcraft and Apple’s GarageBand, which now has an application for the iPad. It is the voice and the narrative that creates a digital story, rather than an automated slide show. The narrator’s voice creates a connection with the lived experience

[65] Fotobox was created by the company Honestech. This firm was formed in 1998 in Austin Texas. Their goal was to simplify video capture for consumers.

[66] There is also an array of new software developments in mDST (mobile Digital Storytelling). Please refer to Nordmark and Milrad [41].

[67] Digitales, http://www.digitales.us/.

[68] Center for Digital Storytelling, http://storycenter.org/.

[69] In the Fray, http://inthefray.org/.

expressed through the visuals. Therefore, the script requires careful writing[70] and editing, but the voice – and how life is expressed through it – matters.

It is worthwhile to ask what students gain from the digital play of digital storytelling. Media literacy expertise, built through media practice, can leverage a wider understanding of information literacy. Beyond learning to use software, students gain new skills when thinking about sound. If a voiceover is deployed, then students must create a precise script and focus on the delivery of those words, adding emotion. Therefore it is necessary that students learn about their voice. Students explore how to make sounds attractive and compelling for listeners, while building productive relationships with images.

Through such hardware and software, digital storytelling provides teachers and learners with great gifts. Teachers and students can bring the world into the classroom and the classroom to the world. Digital Storytelling expands communication skills, project development and media production strategies, applying academic ideas in new ways. While 'new media' may distract students from core skills in reading, writing and thinking, digital storytelling grants students the ability to learn and apply knowledge. The personal can be made political. The abstract becomes applicable. The goal is to find ways to gather empirical evidence and shape considered interpretations from the media platforms that are available. The creation of digital visual objects is enhanced through a range of hardware and software opportunities. The best and most advanced technology is not always the most appropriate. The question is if and then how this democratized and domestic platform can be deployed in academic environments.

Narratives matter. They are a way to explain and understand new ideas. The propulsion – while often creating reified causalities and linearities – is a powerful scaffolding strategy. But precise editing is essential. Indeed, one of the underestimated and unacknowledged skills derived from digital storytelling is meta-awareness about editing.[71] The combination, the order, the configuration are all relevant. Cultural differences can be logged and recognised.[72]

Digital storytelling gives students and teacher great gifts, beyond the management of hardware and software. Thoughtful connections and reflections can be created between students and their environment.[73] Cheap, domestic equipment can expand the window of visual scholarship. Digital storytelling is an evocative way to explain the world through narratives. It is an organisation of knowledge through digital objects. The outcomes are clear: storytelling skills, capacities in hardware and

[70] Emerging research is investigating how digital storytelling provides opportunities to improve writing clarity and standards. Please refer to Saunders [42]. This article is particularly important as it demonstrates how writing has diversified through digitization.

[71] One of the best investigations of editing in digital storytelling is Alexander [24].

[72] Eric Michaels' analysis of Warlpiri film making, and the use of panning shots in understanding the histories captured within the landscape is relevant. Please refer to Michaels [43].

[73] An outstanding article exploring the role of reflection and listening in teaching and learning is Walsh [44].

software, information literacy, project management, media production, ethics and applying academic ideas for new audiences. Emotion is balanced by research. Life is contextualized through learning.

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Conclusion: This Used to Be My Playground

Tara Brabazon

When enough people raise play to the status it deserves in our lives, we will find the world a better place.

(Stuart Brown [1], p. 218)

Abstract Play has a purpose. It can create a context for learning but also an alternative way of living. While digitization facilitates trolls and bullies, there is also an opportunity for resistance and change.

Madonna's career has been captured through a series of images and stages: the bopping Madonna of "Holiday" in the Hacienda nightclub, the Madonna cloaked in a Gautier's bra, the Madonna of ambivalent sexuality in the *Sex* book and the yoga-nimble fifty-something Madonna. An almost-forgotten moment is the song she recorded for the film *A League of Their Own.* "This used to be my playground" conveys memories of a better time. Play is flooded with nostalgia, remembering freedom, light and hope, before work, family and responsibilities. This book has recognized the empowering history of play in the last 150 years of education, teaching and learning. However it has updated this set of theories to enable digitization and the complex trans-national requirements of contemporary education. Particularly, we have worked from birth and early childhood education through to universities.

Play involves living in – and investing in – the moment. But when play is theorized through the research contained in this book, it becomes bigger, bolder and captures and communicates narratives and stories that move through space and time. It becomes part of an understanding the self, society and social change. This book has demonstrated the way in which play creates opportunities for disruption, welcoming the unpredictable. It offers theories of movement in both bodies and ideas. Play has a context, offering a framework for the activation of risk, confusion, problem solving, failure and recalibration.

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Many of the chapters in this book confront the specific challenges engulfing pre-service teachers in an era of conservative accreditation and standardized testing. The (few) spaces of innovation and imagination that remain in the overstuffed and regulated curriculum must be grasped and relished. Similarly, the examples and exemplars from early childhood education explored in the first section of this book can and should be applied to all other levels of education. Models and motivations move through teaching and learning during our lives, beyond formal institutions of learning. Digitization – through domestic hardware and software – offers great potential to play, learn and explore.

This book has shared the energy and innovation from one school of teacher education, spread over three locations and two countries. It is international and important. But the researchers also relish in positivity and possibilities. We stress movement in ideas and bodies, linking self with society and text with context. If there is ever any doubt about the value of play and its possibilities in creating social change, then one final story can show its potential and trajectory.

Body shaming and bullying anchor online and offline environments. The demeaning of others is part of celebrity culture and hypercapitalism. These brutal attacks on the self are seen in the treatment of one man in London. He expressed his pleasure in music through dancing in public. Yet mobile phone-weilding trolls photographed his dancing, accompanied by raucous and cruel laughter. His body did not fit within their parameters of normality or acceptability. Their laughter had an effect within seconds. He heard them. He saw them. He saw them photographing his body. He heard their laughter. He stopped dancing. He then looked down at his body with such shame that the tragedy hooked out from the pictures stolen by the trolls. They uploaded their images with pride, continuing to laugh at those who do not fulfill their expectations of bodily normality. Yet the surprise and wonder of digitization offered an unexpected twist to this story. The shaming of this dancing man triggered outrage on Twitter. The hashtag #finddancingman emerged. Buzzfeed enabled the search.[1] He was found and supported to create his own Twitter account: @dancingmanfound. He has thousands of followers and is supported to be himself and dance.

Play can attract attacks from bullies, trolls and cynics. But it also opens out opportunities for diversity, support, respect and care. Play can create learning in and through unexpected channels, platforms and modes. It can activate participatory democracy through media and a mode of resistance against discrimination and prejudice. Play is a serious business. But through light and support and opportunity, new ways of living and learning can commence.

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