Incidental teacher⇔student moments in an Aotearoa New Zealand secondary school: Entangled encounters with Key Competencies

A thesis

submitted in fulfilment

of the requirements for the degree

of

Doctor of Philosophy in Education

at

The University of Waikato

by

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2019

Abstract

This study focuses on the performance of Key Competencies of the New Zealand curriculum in incidental teacher⇔student moments. It makes visible a significant and often taken-for-granted portion of teachers' daily work. Situated in one Aotearoa New Zealand secondary school, the research material of this study was generated in two cycles of conversations with teachers. In these conversations the teachers spoke about ordinary, unplanned moments with students. As the school is composed of more than 50% Māori students, I spoke first with individual Māori teachers at the school, inquiring into their knowledge of key competencies, and how that pedagogical knowledge related to knowledge and practice from whakaaro Māori. In the second cycle of generating research material, a collaborative group of Māori and Pākehā teachers engaged in a recursive process of inquiring together into stories participants told of everyday encounters with students. In this inquiry the names of key competency categories were put in the background as the group focused their inquiry on the teacher's values, knowledges and beliefs that were contributing to action in the moment.

My analysis of the research material is situated in the field of posthuman philosophy and relational⇔materialist theorising. Drawing on the work of Deleuze and Guattari, Massumi, Barad and Bennett, I applied Barad's methodology of diffractive analysis and paid attention to multiple material and discursive forces and intensities at play in each story. In this analysis, diverse forces such as colonised histories, educational discourse, human and more-than-human materialities, whakaaro Māori, hope and belief, were evidenced intra-acting together. I noticed how these forces invited the mobilisation and performance of key competency actions in the service of becoming and relating with the world.

This study shifts thinking with key competencies from the reductionist territory of the individual human and re-territorialises them as dynamic

performances of becoming. It contributes to a re-thinking of subjectivity and potentiality in the place of schooling in Aotearoa New Zealand. As the multi-dimensional entangled complexity of day-to-day pedagogical encounters is disclosed, teacher⇔student intra-actions become known as ripe opportunities for performances of actions that come under the umbrella of key competencies. The study opens new ways of thinking about how key competency learning is produced in secondary schools, and how the placetimemattering of the school shapes that learning.

I explore diffractive patterns as key competencies entangle with posthumanism and with whakaaro Māori in everyday teacher⇔student encounters. I present a way of thinking with key competencies that aligns closely with whakaaro Māori and posthumanism, and offers a creative and ethical orientation to life and learning. I think with the teacher⇔student relational moment as a significant site of learning, and how knowledge of affect and relational-practices of knowing and recognition might contribute to teachers' professional adaptive expertise.

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Chapter 1: Introducing the study

In this study I enquire into the performance of key competencies in incidental teacher⇔student moments in one Aotearoa New Zealand secondary school. In the process of this research I have travelled into new territory, the domain(s) of posthuman theorising. As stories of practice, key competencies, and posthuman theorising met together in diffractive waves, new ways of conceptualising key competency performance emerged. It is these new ways of thinking, these percolations of learning, which I offer back to the field of education in this thesis.

This study interrupts received thinking about key competencies (Ministry of Education, 2007, pp. 12–13). It de-territorialises key competencies from the domain of humanist individualistic understandings and re-territorialises them as performances of becoming in/of a material⇔discursive world. Through the telling and diffraction of storied moments of incidental and unplanned teacher⇔student encounters, the stuff of everyday moments becomes recognised as a context in which competency actions are made possible and performed. Drawing on the experiences of teachers, this study calls attention to the forces and intensities operating in storied assemblages of schooling. Human and nonhuman materialities are evidenced as intra-acting with histories, hopes, affect, whakaaro Māori, values and practices, beliefs and educational discourse, as virtual potential is realised in the dynamic performativity of lived actions. As such, competency actions are shown as being made possible through the play of multiple lines and forces, located in the relational movement of assemblage rather than the internalised qualities of any individual human.

This research contributes to a re-thinking of subjectivity and potentiality in the place of schooling in Aotearoa New Zealand. Thinking with posthumanism "urges us to think critically and creatively about who and what we are actually in the process of becoming" (Braidotti, 2013, p. 12).

Thinking differently, thinking about the creative potential of life unfolding, expands notions of competency action beyond "key competency" silos to how young people are learning to go about their being and becoming with and of this world in relationally connected and ethical ways.

In this chapter I give a brief overview of the structure of this thesis. I introduce myself and the opportunities that led to me engaging in this project. I locate the place of the study before presenting the key competencies of the New Zealand Curriculum. I then introduce the theory and philosophy I have thought with to inquire into the research materials. A brief overview of my research methodology follows, leading to thumbnail sketches of the following chapters. But first, a note about language and terminology.

In Aotearoa New Zealand the signifiers Māori and Pākehā arose when Europeans colonised the land and came into relationship with the indigenous people. The terms Māori and Pākehā define "a colonial relationship between 'Māori' and 'Pākehā', the non-indigenous settler population" (L. T. Smith, 1999/2012, p. 6). Using the word Pākehā invokes the shared colonial history and on-going relationship of *tangata whenua* and colonisers. The term Pākehā today is generally taken to refer to "settlers or the descendents of settlers, usually British" (A. Crocket, 2010, p. 66). The term Tauiwi is also used to identify non-Māori; while it encompasses Pākehā, it has a wider scope designating all immigrants to New Zealand.

I have used Māori terms and language as appropriate throughout this thesis with—at times—an English meaning in the accompanying text. To assist when no textual translation is present, I have included a glossary at the end of this thesis.

Mihimihi: Where I stand, where I come from

I am a fifth generation Pākehā New Zealander, an heir of the colonisers. Both sides of my mother's family emigrated to the south of the South Island from Scotland and England in the 1850s. One of my great-great-grandfathers worked for a time as a gold-miner in Gabriel's Gully. In 1949, my father, born in England, emigrated as a young adult with his Quaker parents and brothers to Dunedin. I have been privileged in many ways, not least in the high valuing of education that flows through my families. Born at the turn of last century, both my grandmothers, one in the north of England, one in Dunedin—and all their six sisters—received a tertiary education alongside their brothers.

I was born in the South Island before my family moved north, growing up in Upper Hutt and then moving to Hamilton as a teenager. I trained as a primary school teacher in the late 1970s and have taught in many places in Aotearoa New Zealand and at many levels in primary, intermediate, and secondary schools. After living and working in different towns in both the North and South Islands, my husband and I settled in Te Awa (a pseudonym) and started a family. Following a long involvement with what was then Marriage Guidance and later Relationship Services, in the early 2000s I completed my Master of Counselling degree so I might work therapeutically with children. After working in the health sector in Child and Adolescent mental health for nine years, I made the move back into education when I began working as the guidance counsellor at Te Awa High School in 2007.

Invitations to research

My interest in exploring how understandings of the key competencies may be performed in teacher interactions with students grew through my involvement in the Teaching and Learning Research Initiative (TLRI) research project: "Key Competencies: How School Guidance Counsellors Contribute to Student Learning" (TLRI, 2014). Throughout this two-year project, the research team (Kathie Crocket and Elmarie Kotzé from the University of Waikato, and three Eastern Bay of Plenty school guidance

counsellors: Colin Hughes, Alison Burke and me) looked closely at stories of counselling conversations through the lens of key competencies of the New Zealand Curriculum. In that project, the key competencies provided a shared language with which to describe the work and learning that takes place in the counselling room in ways that were mutually recognisable to teachers and to counsellors.

In Cycle 4 of the TLRI project we brought the results to senior teachers and leaders in each of the three schools. At each school, teachers and leaders indicated a desire to know more of how **they** engage with key competencies in 'here and now' practical moments. One principal talked about how she would like to use the same methodology we had used as a way of enhancing professional development with staff. A senior teacher asked if he, too, could have the experience of looking closely at his work, to see how he was engaging with the key competencies in his day-to-day interactions with students.

Almost immediately following these meetings, the opportunity to apply for a University of Waikato doctoral scholarship with the Wilf Malcolm Institute of Educational Research (WMIER) was presented. The terms of the scholarship called for an investigation of the key competencies. Encouraged by the school leaders' enthusiasm for a research design that inquired into stories of moments of everyday practice, I set about applying for the scholarship and subsequently planning this project.

The focus of key competencies (KCs[1]) in the New Zealand Curriculum (NZC[2]) (Ministry of Education, 2007) is on fostering students capacities to respond in real-life authentic situations both in the present and in the future (Bolstad et al., 2012; Hipkins, 2006; Hipkins, Bolstad, Boyd, & McDowell, 2014). In this study I place the lens of inquiry on the often-hidden learning that occurs in incidental and unplanned everyday

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[1] Throughout this thesis I use the initials KC for key competencies

[2] For convenience throughout this thesis I have abbreviated the full title of *The New Zealand Curriculum for English-medium teaching and learning in years 1-13* to the initials NZC.

moments between students and teachers. The TLRI School Counsellor/Key Competency study (TLRI, 2014) demonstrated the benefits of recognising competencies in ordinary, everyday interactions within the school community. This research project evidences the teacher⇔student relationship as a productive context for the learning and performance of key competency actions.

The place of Te Awa High School

I chose Te Awa High School to be the site of this study. As the place where I had worked for a number of years, I had already established productive collegial relationships. These relationships were both congenial enough and robust enough to support the openness and vulnerability of a close weaving and telling of personal/professional stories. The Principal and Board of Trustees had supported the TLRI project and were fully supportive of this study.

Te Awa High School is an English-medium provincial secondary school (Decile 4), located in a medium-sized town within a wider rural community. Over the time of this research project its roll was between 800 to 850 students. Many students travel to school by bus from rural communities and beach suburbs, while others live in the town itself. The school has a strongly bi-cultural student mix, with more than 50% of its students identifying as Māori, and most others as NZ European (who I refer to as Pākehā throughout the rest of this thesis). Many of the students come to high school from Māori-medium kura primary schools. While whakaaro Māori is embedded in practices within the school, these practices are fitted within the Western conceptions of schooling inherited from an English tradition and governed by current English-medium educational discourse.

Ethics and place

Settling on a research inquiry focused in one school made room for the **place** of the school to permeate the research. The notion of place is conceived as more than a geographical location on a map. It is a relational assemblage of land, history, memories, bodies, and the past and future

coalescing in embodied experiences with/in/of physical environments (see Duhn, 2012; Gruenewald, 2003b, 2003a; Penetito, 2009; Somerville, 2010; Somerville, Davies, Power, Gannon, & de Carteret, 2011). Place-based pedagogies extend notions of schooling beyond formal education inside classroom walls to encompass the wider context in which a school exists. Places themselves are recognised as pedagogical:

> That is, as centres of experience, places *teach* us about how the world works and how our lives fit into the spaces we occupy. Further, places *make* us: As occupants of particular places with particular attributes, our identity and our possibilities are shaped. (Gruenewald, 2003a, p. 621 italics in original)

As a curriculum framework, the NZC lends support to the kaupapa of place-based pedagogy as it invites local communities and schools to work together to bring to life curricula that fit local contexts—that is to weave the very place of the school into learning. Furthermore, posthuman performativity tells us that not only are we shaped by the places in which we live, our acts of living shape places and thus the world (see Barad, 2008). We—I/you/me—**become with**, indeed we **are** the places we inhabit, and our places **are** we—I/you/me/place. Such becoming-with is enfolded in the whakatauki:

> *Ko au te awa—ko te awa ko au*
> *I am the river—the river is me*
> (Māori Law Review, 2014, para. 9)

As a place, Te Awa High School is enmeshed in a web of local connections and threaded through with land, with water, human and more-than-human kin, with traditional relations, with colonised histories, new arrivals and with distant and recent events. The stories Māori and Pākehā people told in this research are more than intimately connected with this place, they are co-constituted by, woven with and re-iteratively weaving of the place of this school. They are the place:

I am the school and the school is me.

In this thesis, the name Te Awa is a pseudonym, gifted to this project by my friend, colleague and cultural advisor, Titihuia Rewita. As I wrote my ethics application, I followed an ethic of confidentiality, and my ethical approval precludes me from identifying the school and town's actual name. This means I cannot write about recent significant events that shook the community. I cannot write about particular acts of colonisation—the effects of which reverberate today. I cannot talk about specific hopes and triumphs. So while I may—and do—refer to the place of Te Awa, in effect these stories remain untethered from their actual ground. Non-specific when specificities matter in their mattering, much has been obscured in my re-telling and writing. This is a loss and limitation of this research.

The Key Competencies of the New Zealand Curriculum

The current NZC has been available to breathe life into teaching and learning for over a decade. It is the national document that guides English-medium schools and teachers in the planning and delivery of learning opportunities for young people. The NZC was designed to respond to the future-focused premise that the world is rapidly changing in complex and unforeseen ways and that young people need to learn competent ways of being and acting if they are to live full, satisfying and active lives and contribute to a just and sustainable world. The inclusion of KCs in the NZC arose in the wake of international research and development on future-focused learning (see Hipkins, 2018). In Chapter 3 I trace and critique the development and implementation of the KCs.

The NZC stands upon principles that "embody beliefs about what is important and desirable in school curriculum—nationally and locally" (Ministry of Education, 2007, p. 9). The NZC embraces values that are

"considered important because it is by holding these values and acting on them that we are able to live together and thrive" (Ministry of Education, 2007, p. 10). The Key Competencies stand as the spheres of action that put into operation the Principles and Values of the NZC. Together, the Principles, Values and KCs are often referred to as the—aspirational— 'front-half' of the NZC. The 'back-half' comprises eight learning areas considered "important for a broad general education" (Ministry of Education, 2007, p. 16). Identified as capabilities for living and lifelong learning, the KCs are categorised in five different domains:

- thinking;
- using language, symbols, and texts;
- managing self;
- relating to others;
- participating and contributing.

They are identified as "the key to learning in every learning area" and their development is both "an end in itself [a goal] and the means by which other ends are achieved" (Ministry of Education, 2007, p. 12). The NZC describes competencies as "drawing on knowledge, attitudes, and values in ways that lead to action" (Ministry of Education, 2007, p. 12), and they are acknowledged as entwined not only with each other, but also with other resources available to learners. In the NZC each key competency is accorded a short paragraph that explains what it is about. To give a sense of each competency, I quote here the first sentence of each description:

> Thinking is about using creative, critical, and metacognitive processes to make sense of information, experiences and ideas …
> Using language, symbols and texts is about working with and making meaning of the codes in which knowledge is expressed …
> [Managing self] is associated with self-motivation, a "can-do" attitude, and with students seeing themselves as capable learners …

> Relating to others is about interacting effectively with a diverse
> range of people in a variety of contexts ...
> [Participating and contributing] is about being actively involved in
> communities …. (Ministry of Education, 2007, pp. 12-13)

In the NZC, there is a short paragraph following each key competency description that lists some of the actions students may demonstrate that fall within that competency. Following humanist discourse, these descriptions lend themselves to accounting for student's actions on the basis of individually held personal characteristics:

> Students who are comptetent thinkers and problem-solvers actively
> seek, use, and create knowledge ... students who manage
> themselves are enterprising, resourceful, reliable, and resilient …
> students who relate well to others are open to new learning and
> able to take different roles in different situations ... students who
> participate and contribute in communities have a sense of
> belonging and the confidence to participate within new contexts.
> (Ministry of Education, 2007, pp. 12-13).

Bringing posthuman theorising to the KCs, as I describe below, extends thinking beyond the familiarity of the individual human. Posthuman theorising works against thinking with key competencies as fixed outcomes and focuses on how the play of forces, intensities, and materialities give rise to emergent action in a process of continually differentiating becoming—in all its messy, tentacular, polytonal, on-going, recursive, twisting, halting, simmering activity of movement and change.

Posthumanism

As I was putting the final touches to my research proposal, I was introduced to posthuman theorising. My initial exploratory readings of Lenz Taguchi (2012), Barad (2008) and Davies (2014) were particularly influential as I realised that here was a way of thinking and theorising that

resists invitations to quantify or categorise young people and their actions, and celebrates the life and creativity that emerges in everyday performances of becoming. Later reading introduced me to the works of Deleuze and Guattari (1980/1987, 1991/1994, 1977/2009), Massumi (2002b, 2002a, 2015), and Bennett (2010) and I engage with the work of these authors—and Barad (2007, 2008, 2010, 2014, 2017a, 2017b)—as key philosophers and theorists in this study. I am also indebted to the many educational and philosophical researchers who have thought with and explained posthumanism in their work and writing. I now tender a brief introduction to posthumanist theorising and its relevance to this study. In Chapter 2 I give a fuller account of the particular theories and concepts that I have applied in this thesis.

Posthumanism as a philosophical field incorporates the advances and learning of post-structural theorising and extends beyond the dominance of human world(ings) to think with all matter—human, more-than-human (Alaimo, 2008), technological, natural—on a flattened plane of becoming. Central to posthumanism is an understanding of the world as always dynamic and entangled in a process of forming, re-forming, in-forming, composition and de-composition. In a flattened ontology, the world and all its inhabitants—living and 'nonliving'—are recognised as continuously becoming and emergent through intra-active co-constitutive relationships. The theories I engage with in this research seek ways to know and think about the 'always already' relational intra-connectivity of natural and cultural forces and how they shape the world's becoming.

Throughout the writing of this thesis, I adopt and extend Jackson and Mazzei's (2012, p. 110) use of the double arrowed ⇔ symbol to indicate the mutuality of performative intra-action. When referring to the theorising I have used, at times I use the more global nomenclature of posthumanism, sometimes I refer to Barad's (2007) **agential realism**, at other times I follow Hultman and Lenz Taguchi (2010) and refer to **relational⇔materialist** theorising. The term relational-materialism is particularly apt in the field of education, as a reminder that children and

young people are "emergent in a *relational field,* where *non*-human forces are equally at play in constituting children's becomings" (Hultman & Lenz Taguchi, 2010, p. 525 italics in original).

Posthumanism and the KCs

As I engage with posthuman philosophies and theories I activate new ways of thinking about how those actions that fall within the domains of key competencies—which I have termed KC-actions—are produced and performed. In so doing, I join the ontological turn in education "that deliberately decentres epistemology and methodology in order to imagine human being differently" (St. Pierre, 2017, p. 1080). A humanist view advances a notion of humanity as essentially normative as it "… spells out a systematized standard of recognisability—of Sameness—by which all others can be assessed, regulated and allotted to a designated social location" (Braidotti, 2013, p. 26). As a counter-practice to the "tripartite banner of school reform: standards, testing and accountability" (Gruenewald, 2003a, p. 621), placing a posthuman lens over pedagogical practice invites new knowledge about how young people, teachers, schools and communities are continually being shaped.

In this research, I step away from examining KC-actions against a humanistic discursively-imposed ideal of behaviour, and notice the performance of actions that emerge from the dynamic intra-active play of forces and intensities in material⇔discursive encounters. I do so by paying attention to "the affordances and capacities of worldly things and affective flows to shape young people's desires and ways of being in the world" (Gannon, 2016, p. 128).

To think with notions of KCs and posthuman performativity, I have put the named KC-domains (Thinking; Managing self, Relating to others; Language, symbols and texts; Participating and contributing) in the background. I have done this deliberately in an attempt to avoid skidding on simplistic surface understandings and humanistic notions that invite one to think of concepts such as "managing self" as a thing, skill, or knowledge to be owned or acquired by an individual and produced at will.

Instead I have focused on the forces at play in assemblages, and noticed performances of becoming-selves that have emerged through the intra-activity of assemblage components, always in process and unfolding. In my writing I refer to these performances as KC-actions to indicate that they are 'doings', ways of acting in/of/with the world that may be thought of as falling within the discursive domain of KCs. These actions-with-the-world put into operation values, beliefs, knowledge, and learning—entangled with the affordances offered by other material⇔discursive forces and lines in play in the assemblages. 'KC-action', viewed through a relational⇔materialist lens, is an ontological project of learning and performing ways of being-acting in the world. In Deleuzian terms, KC-actions are thus performances of creative engagement with difference in an unfolding, refolding process (see May, 2005, pp. 17–25).

I draw on a Deleuzian understanding of 'concept' to think with the KCs. Deleuzian concepts produce an orientation or direction for thinking that is creative, "creating connections and possibilities for thinking beyond what is already known or assumed" (Colebrook, 2002, p. 19). Thinking with Deleuze "means that we can take experience as it actually is (experience in its actual form) and differentiate it into its *virtual* components" (Colebrook, 2002, p. 35 italics in original). The emergent performance of KCs is about realising—making actual—the virtual potential of capacities and competencies. Thinking with the concept of KCs through a posthuman lens opens new ways of thinking about possibilities for the performance of KC-actions.

Posthumanism and te ao Māori

Posthumanism theorising speaks closely with Eastern and indigenous knowledges in which more-than-human beings (for example: animals, mountains, rivers, trees, spirits) are understood as performative agents in the world. As such, it accords with a te ao Māori philosophy of immanent relationality (Jones & Hoskins, 2016) and so is doubly appropriate as a way of thinking with the stories of practice that were told in this study in the place of Te Awa High School. In Chapter 3 I trace how instances and practices of **living as Māori** emerge in the context of this mainstream

English-speaking school, and in Chapters 8 and 9 my diffractions of stories of practice open ways of thinking that place the KCs in conversation with whakaaro Māori.

Intra-active community

Viewed through a posthuman lens, the community of Te Awa High School is seen to be both fluid and structured. It is a breathing constellation of the human and more-than-human (Alaimo, 2008) as such things as bodies, buildings, histories, land, discourses of education, technologies, cultural and gendered forces mesh together as "on-going encounters among coexisting multiplicities" (Davies, 2014, p. 6), creating places of continually emergent possibility. Notions of the bounded individual human self are forced apart as the self is understood to **emerge** through the intra-active flux and flow of dynamic material and discursive forces and intensities operating in encounters. Such theorising topples thinking of key competencies as singular aspects of individual students' capacities, and opens to the expansive potentiality of and affordances available in the relational intra-action of any encounter or assemblage. In this way, the encounter or assemblage becomes the unit of study, not the individual.

Wicked problems

In a world "in the midst of an ecological crisis of catastrophic proportions" (Blenkinsop, 2018), if young people are going to inherit a place in which they can live "full and satisfying lives" (Ministry of Education, 2007, p. 8) then we **all** need to be thinking and doing life differently. Collectively, the way humans think about 'ourselves with the world' needs to change if the human species is to redress some of the terrible harm we have brought about (see Haraway, 2016; Tsing, 2015). In writing about teaching key competencies, Hipkins et al (2014) grapple with the "educational implications of the 21st-century challenges and realities of living in a world beset with wicked problems" (p. 23), noting the intertwined complexity of the challenges we face. They contend: "21st-century education ought to support learners actively to develop the capabilities they need to engage productively with wicked problems and their possible clumsy solutions" (p. 24). However, while the concept of key competencies remains solely

tethered to individualistic humanist thinking, it remains vulnerable to capture by the forces of neo-liberalism and the pursuit of individual gain. Enmeshed in the creation of worldly wicked problems, conventional humanism alone will not serve in these precarious times. Bringing posthumanism to learning and the key competencies opens space for alternative and diverse ways of thinking and connecting with the world.

Describing her work as onto-epistemo-ethico, Barad (2007) calls on humanity to take an ethical account of actions as on-going participation in the world's becoming. This accords with the vision of the NZC for young people to be "confident, connected, actively involved lifelong learners" (Ministry of Education, 2007, p. 8). It also chimes with calls by New Zealand curriculum researchers (Bolstad et al., 2012; Gilbert, 2005; Hipkins et al., 2014) for young people to learn ways that will help them to live well and create a sustainable future for all the beings of the world. Posthuman theorising draws that future near as it is shown to entwine in present moments, woven together with the past (May, 2005, p. 60). In this study, I understand the performance of KCs as onto-epistemo-ethico actions that are produced in past-present-future moments. The stories told in this thesis demonstrate that the significance of KC-learning and KC-actions is not only implicated in the distant future, but very near and very real in actual teacher⇔student daily life.

Incidental moments

If, as Claxton (2014) claims, 95% of what we learn is through informal experience, then incidental moments of teacher⇔student encounters are rich and extensive learning opportunities. In an interview with Hoyt and Combs (1996), White quotes Australian fiction author Malouf in referring to everyday moments as the "little sacraments of daily existence" (p. 47). He notices the taken-for-granted and seemingly mundane acts of daily living as places where people's lives are formed, and possibilities for new ways of being emerge. As I pay careful attention to "small and ordinary" (Weingarten, 2004, p. 1) moments of teaching practice, the opportunities for KC-action in micro-moments of living are opened for study.

Culturally responsive research

As in many mainstream schools in New Zealand, Māori students (as a group) at Te Awa High School do not do as well as their Pākehā counterparts. They are over-represented in records of stand-down and suspension, truancy statistics and the more minor behavioural infringements that are recorded within the school. While the school recognises this disparity and is working hard to address it, a number of questions arise: What contributes to the much higher rate of Māori exclusion and stand-down? What are the immediate and long-term effects of this, not only on the individual students but the wider community? And how can we do things differently? Questions like these in New Zealand and overseas have prompted a swathe of research and programmes in the fields of social justice in education (see for example Gewirtz, 1998; Grant, 2012; North, 2006; Pless, 2014; Walker, 2003). Just educational communities are charged with addressing inequality—historically and systemically based—between sociocultural groups (North, 2006, p. 519).

There is a productive tension in recognising and addressing the disparities produced by colonisation and systemic inequality, **and** developing other measures that validate and celebrate the many aspects of successful living that young Māori achieve. In Aotearoa New Zealand the political thrust of Kaupapa Māori (G. Smith, Hoskins, & Jones, 2012; L. T. Smith, 2005, 1999/2012) research and practice in education has been to reclaim Māori knowledge, values and ways of being in the world from the domination of colonisation and the assimilationist politics of previous generations (Bishop, Berryman, & Wearmouth, 2014; Penetito, 2010).

Kaupapa Māori research has led to the promotion of culturally safe schools and the development of culturally responsive pedagogies (see for example Alton-Lee, 2003; Berryman, Egan, & Ford, 2017; Berryman & Woller, 2013; Bishop, 2012; Bishop et al., 2014; Bishop & Glynn, 1999; Hynds et al., 2016; A. Macfarlane, Glynn, Cavanagh, & Bateman, 2007; S. Macfarlane, 2009; Penetito, 2010). Researchers and educators in Kaupapa Māori education encourage teachers to not only be aware of

issues of inequality, but to embrace an approach that engages with and values Māori students **as Māori**. The Ministry of Education promotes an education for Māori students that invites them to achieve **as Māori** and "reflects and values their identity, language and culture" (2013, p. 5). In Chapter 3 I explore the development of culturally responsive pedagogies in Aotearoa New Zealand and how a Kaupapa Māori educational discourse of being and succeeding **as Māori** might emerge in the life of an English-medium school.

I am mindful that setting a Māori worldview apart from a Pākehā/Western worldview may be seen as a simplistic reduction of the complex and multi-layered process of identity production. Reducing tangled intra-actions to the "binary of coloniser/colonised does not take into account … the different layerings which have occurred within each group and across the two groups" (Smith, L. T., 2012, p. 28). Nor does that binary take into account the influence/impact/contribution of other cultures also present in the school community. I make the distinction between 'Māori and Pākehā' as categories not to sediment a binary or to push apart divisions that make room for othering and disconnection. Rather, I make this separation as a strategy to be able to talk about different knowledge and practices of becoming in the world. I intend this separation to serve as a way to claim space in this study for emergences of Māori ways of being and relating with the world.

The Treaty – Te Tiriti o Waitangi

The Treaty of Waitangi/Te Tiriti o Waitangi is Aotearoa New Zealand's founding document. Acknowledging the principles of the Treaty is named as one of the eight guiding principles of the NZC, and as such is one of the foundations guiding curriculum decision making in schools (Ministry of Education, 2007, p. 9). The Royal Commission on Social Policy (1988) identified the three principles of the Treaty of Waitangi as partnership, participation and protection. Bishop and Glynn (1999) describe these as metaphors which can be used in creating relationships "beneficial to all participants" (p. 196). The principles highlight working together, power-sharing and decision-making towards the realization of mutually

acceptable goals; providing an equality of opportunity and outcomes for Māori in education, and (in this research) guarding the taonga and knowledge of Māori participants. I describe how I attended to these principles in Chapter 4, with the intention that in my conversations I would learn **with** and **from** Maori – not **about** them (see Barnes, 2013; Fine, 1994; Jones & Jenkins, 2008), both in the process of generating study material and when thinking with the wider schooling context.

Whakaaro Māori

As I was designing this project, the weight of poorer educational outcomes for Māori students and the calls for culturally responsive pedagogies were at the forefront of my mind. I was also aware that there was limited literature available about key competencies from a Māori worldview (A. Macfarlane, Glynn, Grace, Penetito, & Bateman, 2008; Simpson & Williams, 2012). This leanness is an example of what Milne (2009) calls "white spaces", with dominant white (read Western/Pākehā) understandings present as an unseen and taken-for-granted background canvas "dictating whose knowledge is important" (p. 2). In the NZC, Māori language and values, even if they were present in the consultation process of creating the curriculum, are minimally named and evident in the final published document.

The KCs and values from te ao Māori each come from very different philosophical worldviews. The roots of the KCs are firmly grounded in the European stomping ground of the Organisation for Economic Co-operation and Development (OECD), and as such are permeated with neoliberal individualist humanist understandings of the world (see Chapter 3). In contrast, the whakaaro Māori I write about in this thesis arises from a rich philosophical heritage of immanent relationality in which all things—humans and more-than-humans—are related through a "dynamic intra-active web of kinship" (Jones & Hoskins, 2013), that resonates with posthuman philosophy (see Chapter 3).

When I set about gathering study material, as a deliberate move away from the colonising research practices and assimilationist politics of

previous generations (Bishop & Glynn, 1999), I aimed to locate this study in a culturally responsive and sensitive place (Cavanagh, Macfarlane, Glynn, & Macfarlane, 2012; G. Gay, 2002; A. Macfarlane et al., 2007). I therefore chose to first speak with Māori teachers, to give whakaaro Māori a prominent position in this research.

Speaking with Māori teachers was a step into contributing to "colouring in the white spaces" (Milne, 2009) of the KCs, and creating openings for rich communal and local knowledge to surface and be made visible. In making a space for the separate voices of Māori teachers, I aimed to keep cultural differences alive (Wyatt, Gale, Gannon, & Davies, 2011), to resist conflation, and to give expression to some of the vibrant multiplicity, the different and distinct component parts (Rae, 2014) that compose this school community. The Māori teachers at Te Awa High School are living in a colonised world and working hard to reclaim lost territory. Even in the small slices of practice these conversations narrated, resistances to the domination of European individualistic values were evident, as instances of Māori living and acting as Māori were spoken.

Jones (2012) draws on Fine (1994) to write about working the Māori-Pākehā hyphen in the context of research practices. My conversations with the Māori teachers in my study inquired into their 'hyphenated' worlds as they, their students, and the school become actualised living, breathing embodied multi-dimensional sites where the virtualities of the KCs—as potential actions and ways of becoming-with the world—and Māori cultural understandings meet, mesh and are realised. I write about particular instantiations of living-the-hyphen in Chapters 8 and 9.

As a Pākehā researcher, I am aware of the limitations of my own knowledge. There are many things I do not know and many things I have no business writing. The generosity of Māori participants has allowed me to glimpse some of their world. I have relied on the writings of Māori researchers to describe the values, knowledge and practice brought forward by these teachers. I have struggled to work against "… the

unwitting tendency amongst Pākehā to centre European assumptions and points of view, thereby to assimilate—even with the best of intentions— Māori ideas and arguments" (Hoskins & Jones, 2012, p. 7). And so I am ever grateful to my critical friends who have gently pointed out instances of Pākehā blindness. Aroha mai.

The story of this research project

Making the ontological turn

The story of this project takes twists and turns. It starts in the landscape of qualitative research, and, carried by the medium of theory, leads to the very different place of post-qualitative knowledge-making practices. When I began this study my daily work was far removed from the flow of academic thinking and writing. The movement towards posthuman theorising and post-qualitative research methodologies was very new to me and my original design was planted firmly in qualitative research. As the research process unfolded, my thinking, reading and writing entangled with theory to shift me as becoming-researcher—and to shift this project— into new territory.

St Pierre (2017) and Taylor and Gannon (2018) have noted that a number of scholars have situated their work as post-qualitative—when they are still stuck in the "mire" (St. Pierre, 2017, p. 1081) of qualitative research. MacLure (2013a) commented on how difficult it is "not to sink into the old habits of humanism" (p. 666) and Nordstrom (2018), quoting Lather, refers to the "gravitational pull of humanism" (p. 219). Because of its beginnings, I cannot claim this study as post-qualitative. It didn't start life as an anti-methodology (Nordstrom, 2018), or in the hope of following the contours of a concept (Mazzei, 2017; St. Pierre, 2017). However, along the way the study has morphed into a relational⇔materialist project, albeit brindled and variegated. As part of a "collective assemblage of enunciation" (Deleuze & Guattari, 1980/1987, p. 22), individualist speaking is enmeshed in both the research participants' and my own daily worlds. Humanist, individualist notions are always present, invisibly at work in

thinking and speaking practices. Throughout the research process I had to actively work to resist the pull of humanism as I engaged with posthuman performative understandings of thinking with and writing about the materials. I trace the journey and process of designing the research, generating material, and thinking and writing with the material in Chapter 4. Here I give a brief overview.

Research questions

My initial title for this study was: *An inquiry into how secondary school teachers foster the development of key competencies in incidental and unplanned moments*. This was in direct response to the parameters of the award of the WMIER scholarship, which asked applicants to inquire into: How Key Competencies, as set out in the New Zealand Curriculum, are fostered, evidenced and traced over time, places and tasks in early years and compulsory schooling. The following questions initially structured my research inquiry:

- What particular understandings of key competencies are available to secondary school teachers?
- How might these understandings of key competencies be further enhanced and developed?
- How do and might secondary school teachers contribute to students' development and use of key competencies within the informal milieu of secondary school life, both inside and outside the classroom?
- How might cultural understandings and knowledge of key competencies be enriched and utilised to inform the relational context of key competency development?
- How does investigating student behaviour through the lens of key competency development effect teachers' perception of and management of behavioural challenges in schools?

These questions were particularly formative in shaping both the design of the project and my individual conversation schedule. However, as the

process of the research unfolded, the new thinking and theory I was engaging with entangled with the study and had a curiously paradoxical effect. 'I' became knitted closer to the generation, thinking and writing with research material, and also became able to take a more divested position of interested and open inquiry. I became less set on the "How" questions that yearned for definitive answers, and moved to a more curious style of inquiry in which I was willing to "get lost" (Lather, 2007, p. vii), to hold the storied moments gently in order to open, trace and wonder with them.

An entangled 'besider'

As a researcher I cannot separate my-self/selves from the conversations and stories that were told. "I"—my history, my influences, my experiences, my relationships with my-selves, others, theory, materiality—is entangled throughout this research assemblage, its design, the generation of material, analysis and writing. Although I have been a classroom teacher in other places, and am registered and paid as a teacher, in Te Awa High School I am known as a counsellor. I am entangled as both inside (Humphrey, 2013; Malone, 2003; Reinharz, 1992) and part of the school, and outside regular teaching practice. In this research I think of myself as a **be-sider** when in conversation with my colleagues. The relationships I shared with each participant, the back-stories I knew of them and they of me (see Jackson & Mazzei, 2012, p. xi), thus became constitutive factors in the research assemblage.

Entangled stories

The research materials were generated in two cycles. In the first cycle I spoke individually with four Māori teachers inquiring into their understandings of KCs. In the second cycle I met over the course of a year with an already established professional development group of Māori and Pākehā teachers as we inquired together into the forces at play in stories of unplanned teacher⇔student moments. I give an account of the generation, analysis and writing of research stories in Chapter Four.

In the course of my individual and group conversations with participants, the stories of practice that were told may be thought of as a coagulation of

mattered meanings, re-membering, telling and thinking entangled together in productive conversations. On another day, with another telling, and a different mix of participants, different conversations would have generated different stories of practice. The generation of the stories themselves was entangled with my thinking about this research and the questions that I asked. The time of day, the energy level of participants, along with a host of other material⇔discursive components all entwined together in the assemblage of each 'story telling'. Thinking about the stories with other theory would have opened different knowledge. Therefore, I present these stories as one out of an indeterminate number of possible narrations. As rhizomatic mappings of moments of practice, there are "multiple entryways" (Deleuze & Guattari, 1980/1987, p. 12) into and out of every story told here, with multi-directional links between.

Thinking and writing with the material

As a methodological approach to thinking with the research materials I followed Barad (2007, 2014) to conduct a diffractive analysis (see Chapter 2). I used theory from Deleuze and Guattari, Massumi, Bennett and Barad to think with the research material through different diffraction grates. Reading the material through theory and the front half of the NZC, I noticed relationships between and within material-discursive practices that generated and opened new understandings of how what we think of as KCs may be produced.

As I enquired into the forces at play in each teacher's story, I also looked at the 'in-betweens', the potent interstitial spaces between the material and the discursive, the borders and transitions where the possibilities for becomingness reside. I considered how the relationships between forces (human/more-than-human, material/discursive, nature/culture) produced the shape of the encounter in an "emergent causality" (Bennett, 2010, p. 31), where the un-folding en-folding process itself became an actant in the lively becomingness of the encounter.

In writing the complexity of stories, their telling and my analysis, I did not seek to 'capture' or 'represent' the teachers and their practices. Rather I

searched for a way to honour the poetic and life affirming in the conversations and sit it alongside robust theory and knowledge-making. I followed the teachers' observations in ways that prompt thinking with the domains of the KCs as living open concepts that breathe in relationship with onto-epistemo-ethico ways of being in the world, noticing difference and values that are "integral to the nature of knowing and being" (Barad, 2007, p. 37). As Barad says "entanglements are not unities. They do not erase differences, on the contrary, entanglings entail differentiatings, differentiatings entail entanglings. One move—cutting together apart" (2014, p. 176). Thinking with difference is important, as it is in the process of entanglement and differentiation, that life in all its complexity emerges.

Non-innocence

The stories told in this thesis illustrate the complex calls that secondary school teachers face every day. In the midst of meeting with young people who are living in the turbulence of adolescence, and the demands of facilitating formal learning and extra-curricular activities, navigating through unexpected teacher⇔student moments is not easy. The actions and affects that emerge in each intra-active moment effect both the teacher's and the student's sense of themselves. In exploring the stories I follow Haraway (2016) in taking a "non-innocent" stance when considering the effects of encounters. Non-innocence steers away from the freely available notions of 'good' and 'bad', 'should' and 'shouldn't' that invite moral judgements and the "spectre of personal failure" (White, 2002, p. 3). Non-innocence acknowledges the complexities of intra-connection and intra-action and the "making-with", "tangled-with" (Haraway, 2016, p. 71) performativity of all beings and matter. It is a stance that enables an engagement with ethical responsibility and keeps open space for movement and on-going differentiation.

Further chapters

I have referred above to my writings in Chapters 2, 3 and 4. I now briefly introduce these chapters, before giving a fuller guide to Chapters 5-10.

In Chapter 2 I present the philosophy and theory I have engaged with in this study as I have thought and written with the research stories. I begin with a brief explanation of posthumanism, before introducing Barad's entangled intra-action and Deleuze and Guattari's immanent relationality. I also unfold posthuman conceptions of the self, agency, affect and ethics.

In Chapter 3 I trace the development of both key competencies and culturally responsive pedagogies in Aotearoa New Zealand. In this study I have found that thinking the KCs through a posthuman lens brings them into a fertile conversational space with whakaaro Māori.

In Chapter 4 I tell the story of the process of this research and the messy entanglements from which this thesis has emerged.

Openings

I call Chapters 5-9 my "Openings" Chapters. I use this term rather than the more traditional "results" or "findings", as these chapters are not results accrued from an intervention, nor are they findings that were lurking about waiting to be made visible. At one time I thought I'd call them "Cuttings"— as the knowledge that has emerged from the stories has come through the diffractive cuts (explained in Chapter 2) I made in the material. However, that word carries a potentially violent connotation that didn't sit well with me. I use "Openings" as it describes the sense of openness to potential and emergent becoming that posthumanism and diffractive methodologies evoke.

Chapters 5-7: A kaleidoscope of stories

Chapters 5-7 tell the stories and learning from the collaborative group work. Each of these three chapters details a different kaleidoscopic pattern of thinking with the stories of practice. Chapter 5 contains one story, and is the lengthiest analysis. Chapter 6 comprises two stories, and Chapter 7 is composed of five stories. I think of Chapters 5 and 6 as *The Exam Trilogy* as the three stories in them were all told in the same end of year research meeting, and knot together around the particularity of the time of junior exams. Underneath the umbrella of *The Exam Trilogy* I concentrate on

building a sense of placetimemattering while I draw deeply on theoretical concepts to diffract each story. Chapter 5 sets the scene of junior-exams-in-the-place-of-the-school and then relates a thick diffraction of moments in a food technology classroom on the same morning students had sat their first exam. Chapter 6 is composed of the two companion exam stories. The first takes place the week before exams, and the second tells of an encounter during an exam itself. Read as a set, the diffractions undertaken in the three stories told in Chapters 5 and 6 give a glimpse of moments of school-life in which the performance of KC-actions is entangled with the mattering of thickly sedimented educational discourse.

In Chapter 7 I pull back from the intense placetimemattering described in the previous two chapters and concentrate on shorter tellings and analyses of five stories of practice. In my analysis I bring into focus the movement of intensities and forces operating in the in-between threshold of teacher⇔student relational moments, noticing and diffracting these with performances of KC-actions.

Chapters 8 and 9: Whakaaro Māori and KCs

In Chapters 8 and 9 I make another kaleidoscopic twist and pay attention to the diffractive patterns that emerge when whakaaro Māori and KCs meet together. In these two chapters I have organised the individual conversation material firstly through a wide contextual lens, and secondly by zooming in to particular teacher⇔student relational practices. In Chapter 8, I think with how **living as Māori** is effected in and affects the day-to-day professional practice of the teachers. In Chapter 9, I narrow my focus to the context of particular teacher⇔student moments.

In Chapters 8 and 9 the diffractive cuts I make in the research conversations opens the embodied space of the complex Māori⇔Pakeha hyphen (Fine, 1994; Jones & Jenkins, 2008) of Te Awa High School, revealing passions, pains, strengths and vulnerabilities as they materialise in rich and vibrant becoming. In making these cuts/openings in the material I reveal some of the complex multiplicity of this place. At the same time I work against forces that would conflate, disperse and dissolve Māori

understandings together with the KCs, creating an assimilative mix in which Western knowledge might once again slyly take precedence. Purposefully, I notice difference and highlight values that are "integral to the nature of knowing and being" (Barad, 2007, p. 37).

Chapter 10: Percolations

In my final chapter I discuss the learning that has emerged in this research. I consider the domains of the KCs as virtual territories concerned with how one might live in/of the world. I think how these domains might be re-territorialised to engage more closely with whakaaro Māori and posthuman understandings of onto-epistemo-ethico becomings in the world. I think with the context of the teacher⇔student relationship and the learning that made itself known in the process of analysis. I think with pedagogical practice and notice how affective tone and flows of affect influence transitions in moments of becoming other-than-what-one-was-before.

An ethic of writing

The process of writing this thesis has stretched understandings of the KCs to new territory. To tend to and foster that stretch, "is to enter the stream, contributing to probings: this is co-creative, an aesthetic endeavour. It is also an ethical endeavour, since it is to ally oneself with change: for an ethics of emergence" (Massumi, 2002a, p. xxii). In this thesis I ally myself with the ethic of emergence, of fostering the creative life-affirming processes that the domains of the KCs lean towards. As I have thought with theory and the conversations, new ways of thinking with the KCs and new worldings have been opened. I engage with posthumanism and relational⇔materialist theories as a way to stretch expressions and advance thinking that appreciates the potential learning of every moment in a school.

Chapter 2: Philosophy and Theory

Posthumanism

Posthuman philosophies describe a flattened ontology (Bennett, 2010; Colebrook, 2002; Taylor & Gannon, 2018), where the human is deposed from an assumed hierarchical superiority of 'being' in the world. Building on and extending post-structural thought, posthuman philosophies consider the human alongside and in composition with organic and non-organic more-than-humans in the world's mutual and on-going formation. Natureculture are entwined, as matter itself is understood as active or agentic, meshing with the discursive (or semiotic) in performative intra-action (Alaimo & Hekman, 2008). Tuana (2008) coins the term "viscous porosity" to describe the melding and passing through each other of naturalcultural forces—matter and meaning—whereby "unity is always interactive and dynamic and agency is diffusely enacted in complex networks of relations" (p. 189).

In posthuman theorising, matter is understood to include earthly physical compositions, wind and rain, and such composite materialities as human, more-than-human, and animal bodies. Matter is "*substance in its intra-active becoming*" (Barad, 2008, p. 139 italics in original); matter is not stable or fixed. Even rocks emerge and change—albeit ever slowly—through on-going physical processes. Discursive meaning shapes what are understood as material bodies. Discourse, deriving from post-structural theory, is understood as more than words. "A discourse refers to a set of meanings, metaphors, representations, images, stories, statements and so on that in some way together produce a particular version of events" (Burr, 2003, p. 64). Discourses are socially constructed practices with specific genealogies that attend to how power operates in the world. The on-going intra-active and dynamic relationship of matter and meaning—the material⇔discursive—are continuously shaping and re-shaping the world.

As researchers explore constitution by both the material and the discursive, "without privileging one over the other" (Mazzei, 2013, p. 776), knowing about the world is not considered distinct or above this mutual relationality. "Knowing is a matter of intra-acting. Knowing entails specific practices through which the world is differentially articulated and accounted for" (Barad, 2007, p. 149). Humans do not stand outside the world observing it, rather "we know because 'we' are *of* the world. We are part of the world in its differential becoming" (Barad, 2008, p. 147).

Many different terms have been applied to a posthuman accounting of the world (Taylor, 2016b), including new material feminisms (Alaimo & Hekman, 2008), agential realism (Barad, 2007), process philosophy (Massumi, 2015), and relational materialism (Hultman & Lenz Taguchi, 2010). "What [these approaches] have in common is recognition of the co-constitutive effects of material and affective flows of bodies, spaces and things in educational research" (Gannon, 2016, p. 133).

In this chapter I set out specific concepts from particular posthuman theorists and philosophers—Barad, Deleuze and Guattari, Bennett, and Massumi. Their work, and the work of educational scholars who have engaged wholeheartedly with posthuman theorising have shaped my thinking, my becoming and this thesis. I have selected this theory as it relates directly to the stories of practice told in this study. The concepts I detail here shape valuable thought-practices that call attention to young people and their teachers as continually becoming and emergent, and moments of encounter as potent spaces of differential becoming.

I begin with Barad and her account of mutual entanglement and intra-action. A quantum physicist and feminist scholar, Barad is uniquely positioned to bring forward knowledge and concepts from the scientific world into the humanities. In her agential realist account, Barad (2003, 2007, 2008, 2010, 2014, 2017a, 2017b) explains theory from quantum physics to describe a world in which "the material and the discursive are mutually implicated in the dynamics of intra-activity" (Barad, 2008, p. 140).

I then introduce concepts developed by French philosophers Deleuze (1969/1990, 1968/1994, 1990/1995) and Deleuze and Guattari in collaboration (1980/1987, 1991/1994, 1977/2009). Deleuze and Guattari developed a rich and complex oeuvre that explores the becoming relationality of the world. The concepts that I mobilise in this thesis sit comfortably with and often overlap Barad's theorising, and so I weave comparative Baradian understandings through this section. To further expand Deleuze and Guattari's thoughts on the role of affect in relational encounters, I draw particularly on the work of Massumi (2002a, 2002b, 2005, 2015; 2009).   When considering the notions of agency and assemblage, I turn to Bennett (2010, 2011, 2012) to expand on the vibrancy of matter as an agentic force in the world. I return to Barad to give a theoretical account of diffractive analysis, as the methodology I used to read with the research material. I round off this chapter with a brief consideration of ethical responsibility in a posthuman world.

Entangled intra-action

Barad calls her central theoretical framework agential realism. "Agential realism is an epistemological, ontological, and ethical framework … that provides a posthumanist performative account of technoscientific and other naturalcultural practices" (2007, p. 32). In Barad's terms, matter is a 'doing', not just a thing, and discourses, organisms (human and non-human) and matter are all understood as entangled performative agents engaged in intra-active mutual formation. It is this intra-activity and the relationships between any organism and matter that are constitutive of reality (Barad, 2008, p. 135). Reality is a process, a flux and flow of entangling and disentangling giving rise to phenomena. As Barad says:

> Reality is not composed of things-in-themselves or things-behind-phenomena but "things"-in-phenomena. The world *is* intra-activity in its differential mattering. It is through specific intra-actions that a differential sense of being is enacted in the on-going ebb and flow

of agency. That is, it is through specific intra-actions that phenomena come to matter—in both senses of the word. (Barad, 2003, p. 817)

Relational intra-action creates a world in which "the primary epistemological unit is not independent objects with inherent boundaries and properties—but phenomena" (Barad, 2008, pp. 132–133). Intra-action points to the **emergence** of distinct agencies **through** their mutual entanglement. In a process of the mutual entailment, "discursive practices and material phenomena do not stand in a relationship of externality to one another … neither are they reducible to one another" rather each is "mutually implicated in the dynamics of intra-activity" (Barad, 2008, p. 140).

Barad expands, "it is through specific agential intra-actions that the boundaries and properties of the 'components' of phenomena become determinate and that particular embodied concepts become meaningful" (p. 133). Phenomena are understood as the ontological inseparability of agentially intra-acting components (2008, p. 133). These dynamic relationalities are produced through the operation of material/discursive apparatus: "apparatus are specific material practices of mattering through which local semantic and ontological determinacy are intra-actively enacted" (Barad, 2008, p. 138).

Diffraction

As intra-actions produce differentiating becomings in the world, multiple and continuous waves of worldly re-configurings spread out and through/with each other in diffraction patterns. Barad (2007) describes diffraction as a physical phenomenon, a way of understanding the very real material-discursive effects of entangled performative intra-actions. She explains:

> … I will argue there is a deep sense in which we can understand diffraction patterns—as patterns of difference that make a

difference–to be the fundamental constituents that make up the world. (p. 72)

In her writing, Barad (2007) also uses the term diffraction in two other ways, one of which is as a metaphor with which to think thinking. Using diffraction in this sense, Barad highlights how thoughts/understandings flow through waves of intra-acting antecedents and descendants, moving through and with each other to produce new patterns and lines of thought. Barad also employs diffraction as an analytical methodology—describing a diffractive reading or analysis as a way to "explore the nature of entanglements" (2007, p. 74). I return to and expand on the theory of diffractive readings later in this chapter.

Performativity and becoming

Barad (2003, 2007, 2008) argues for a posthuman performative accounting of the world. Such an account engages with the constantly changing and moving processes of dynamic, iterative intra-activity, and focuses on "matters of practices, doings, and actions" (Barad, 2007, p. 135). Barad acknowledges Butler's (1990/2006) development of the concept of performativity, and extends it further by calling for a "robust accounting of the materialization of *all* bodies—'human' and 'nonhuman' …" (Barad, 2007, p. 66). She stretches Butler's iterative citationality—discourse producing itself—to iterative intra-activity as "different material-discursive practices produce different material configurings of the world" (2007, p. 184). In a performative account, subjects do not pre-exist the phenomenon that calls them into being. They are both constituted in/with and constituting of that subjectivity (for example: teacher, student, learner, boy, girl, fish, table). They emerge from the intra-action in a process of becoming. "Crucially, an agential realist elaboration of performativity allows matter its due as an active participant in the world's becoming, in its on-going intra-activity. And furthermore it provides an understanding of *how* discursive practices matter" (Barad, 2007, p. 136 italics in original).

Causality and agential cuts

In an entangled world, where entities do not pre-exist their intra-action, how can we understand notions such as cause and effect? Barad (2007) introduces the notion of agential separability (p. 176), where the effect, the "marks left on bodies" (p. 176) is brought about by specific actions—or agential cuts—within phenomena. This marking allows an identification of agentially separate entities, an *"exteriority within phenomenon"* (Barad, 2007, p. 177 italics in original). The 'cause' of an 'effect' is not due to the action of a discrete being or object, but to the unfolding relations between the material and discursive components operating in that phenomenon. Resulting from multiple intra-actions, effects burgeon through and beyond phenomena, as multiple entities effervesce together.

In a "cutting-together-apart" (Barad, 2010, 2014, 2017a) each agential cut—as part of the phenomenon moves in relationship with another part of the phenomenon—re-enacts new configurations, new constitutions, new entities, new possibilities. What lies beyond the bounds of each cut doesn't mark an absolute separation, but rather *"agential cuts—intra-actions* … engage in *agential separability*—differentiating and entangling (that's one move, not successive processes) … *Agential cuts radically rework relations of joining and disjoining"* (Barad, 2010, p. 265 italics in original). Entanglements and agential cuts mark "specific material relations of the on-going differentiating of the world" (Barad, 2010, p. 265). As we humans participate in on-going intra-actions and matterings, we are entangled in the very cuts we make and what these cuts do, and that entanglement brings with it an ethical responsibility for the cuts we make. As intra-actions effect what matters, and what comes to matter, they also effect "the rich topology of connective causal relations that are iteratively performed and reconfigured … [and in doing so] the very nature and possibilities for change are reworked" (Barad, 2008, p. 393).

Onto-epistem-ology

As relational intra-activity unfolds, a "part" of the world becomes determinately bounded and propertied in its emergent intelligibility to

another "part" of the world (Barad, 2008, p. 139). It becomes 'known' by the boundaries of its being/becoming in its emergence through intra-action. Teacher, student, desk, milkshake emerge as their properties—what constitutes them and where the edges/boundaries of their constitution lie—become differentiated from other (also emerging) constitutions. As bounded entities act on/in the world in particular ways—in agential separability—they become 'known' or intelligible to other parts of the world.

In posthuman theorising, 'being known' goes beyond the limitations of the human brain. Intelligibility may be the differentiation and knowing of such things as rain on the leaves of a tree, bacteria in a dog's gut, fudge on the tip of the tongue, the ball and the boy running outside on the damp grass. Knowledge, knowing about/with the world, is intimately entwined with being in/of the world. Barad coins the term onto-epistemo-ology (2008) to describe ways of thinking about knowing and being and "the kind of understandings that are needed to come to terms with how specific intra-actions matter" (p. 147).

In this thesis I notice the diffractive patterns that flow through storied teacher⇔student encounters as entanglements of matter and meaning make themselves known. At each agential cut—or intra-action—possibilities for new becomings, new ways of learning and growing reside. I now turn to particular concepts from Deleuze and Guattari that I have followed as thinking-practices to explore further the flux, flow and relational dynamism of each storied encounter.

Deleuze and Guattari and immanent relationality

French philosophers Deleuze and Guattari (1980/1987, 1991/1994) describe a world of immanent relationality, comparable to what Barad refers to as the 'always already' relationality of the world. Out of flow and chaos, "certain organisms are differentiated" (Colebrook, 2002, p. 77), all on one plane of being where "every distinct expression or becoming will be

on a par with every other" (Colebrook, 2002, p. 95). Deleuze and Guattari call this flat ontological plane of being a **univocity**, one voice of being, where knowing and being emerge together, and like Barad's onto-epistemo-ology "mind and matter will always be *within* experience and cannot be used as distinct beings to explain experience" (Colebrook, 2002, p. 95 italics in original).

Assemblages and rhizomes

As Barad speaks about phenomenon being an epistemological unit, Deleuze and Guattari introduce the concept of assemblages, or rhizomes, as that unit. An assemblage may be thought of as an open-ended 'whole' composed of the intra-actions between parts and formed through specific relationships and connections (Kofoed & Ringrose, 2012, pp. 9–10). Assemblages are dynamic constellations of diverse and heterogenous elements such as human and more-than-human bodies, affects, material objects, social and linguistic practices. Assemblages are not things in themselves, but are composed of lines, forces, intensities, speeds and durations all moving dynamically together. Assemblages are about relations between things, not the 'things' themselves.

Assemblages may be large or small. There may be smaller assemblages within larger ones as they intra-act with each other. A school is an assemblage, constantly moving and changing. Human bodies are assemblages—composed of many different forces and materialities—connected in relation to each other. Assemblages compose and de-compose as they create connections with other assemblages. Bennett (2010) describes assemblages as "ad hoc groupings of diverse elements of vibrant materials of all sorts" (p. 23). She continues: "an assemblage is never a stolid block but an open-ended collective, a 'non-totalizable sum'. An assemblage thus not only has a distinctive history of formation but a finite life span" (Bennett, 2010, p. 24).

Assemblages act on "semiotic flows, material flows, and social flows simultaneously" (Deleuze & Guattari, 1980/1987, pp. 22–23). The effects of an assemblage emerge as the elements within it collide, mix, and intra-

act in uneven and unpredictable ways. As multiplicities coalesce in assemblage, they are constantly changing:

> An assemblage is precisely this increase in the dimensions of a multiplicity that necessarily changes in nature as it expands its connections. There are no points or positions in a rhizome, such as those found in a structure, tree, or root. There are only lines. (Deleuze & Guattari, 1980/1987, p. 8)

Deleuze and Guattari (1980/1987) describe two kinds of assemblages working in concert together. " … There is a collective assemblage of enunciation, a machinic assemblage of desire, one inside the other and both plugged into an immense outside that is a multiplicity in any case" (p. 23). Massumi (2002a) describes these different assemblages as forms of content and forms of expression that pass into each other in an immanent process (p. xviii). That is, assemblages are present everywhere, permeating each other "…all we know are assemblages" (Deleuze & Guattari, 1980/1987, p. 22).

Machinic assemblage of desire

Bennett (2010) quotes Bonta and Protevi as defining an assemblage *(agencement)* as "an intensive network or rhizome displaying 'consistency' or emergent effect by tapping into the ability of the self-ordering forces of heterogeneous materials to mesh together" (2010, p. 130 note 13). This self-ordering force brings transitory cohesion and trajectory to the formation of an assemblage. Deleuze and Guattari refer to this force as **desire**. "Assemblages are passional, they are compositions of desire" (Deleuze & Guattari, 1980/1987, p. 399).

As a machinic assemblage, or to use Massumi's description—a form of content—arises, self-ordering desire "is not a 'thing' or a characteristic, but rather a force. It is a coming together of forces/drives/intensities that produce something" (Jackson & Mazzei, 2012, p. 92). For Deleuze and Guattari, desire does not arise from lack, but is a positive force of

affirmative becoming. They describe an assemblage as a desiring machine:

> … which provides connections for a plugging-in of forces, flows, and intensities. The machine, as such, with no subjectivity or centre, is a hub of connections and productions—it deterritorializes and presents the possibility for transformation, proliferation, and becoming. (Jackson & Mazzei, 2012, p. 88)

The transitory cohesion of the storied teacher⇔student encounters in this thesis are assemblages, where desiring force momentarily holds the disparate elements of bodies and matter together in relational connectivity.

Collective assemblages of enunciation

As well as describing assemblages as machines of desire, Deleuze and Guattari also refer to collective assemblages of enunciation. Folded within other posthuman understandings of discourse, the concept of collective assemblages of enunciation focuses on voice, or forms of expression (Massumi, 2002a). How and what might be said does not arise from a singular individual, but as a collective entanglement of various bodies, histories, times and places (Mazzei, 2017). "There is no individual enunciation. There is not even a subject of enunciation" (Deleuze & Guattari, 1980/1987, p. 79), all arises from collective expression "abroad in the world" (Massumi, 2002a, p. xxi). Voice—or expression—is more than what is said, it is entangled with histories and geographies of the social and physical world, gender, politics, culture, and language. What is said— or not—how it is said, the words used or not used, silences, care and attention to others, articulations and inarticulations are all shot through with each other, as expression emerges from multiplicity into a particular form.

Collective assemblages of enunciation and machines of desire, like Barad's phenomenon, mutually constitute each other as transitory relational processes of unfolding life.

Territories

Delueze and Guattari say that assemblages extract a territory from the milieu in which they operate. "Every assemblage is basically territorial" (1980/1987, p. 503). Like an animal staking its 'territory', assemblages extend their influence over a particular area. At the same time, assemblages are composed of fragments and things operating in that territory. The territoriality of an assemblage is also "constituted by *lines of deterritorialisation* that cut across it and carry it away." (Deleuze & Guattari, 1980/1987, p. 504 italics in original). As currents or forces temporarily coalesce with other forces and intensities in assemblage, lines of deterritorialisation (also called lines of flight) open onto diverse other assemblages allowing passage between different states as multiplicities connect and reform. Assemblages thus form particular territories, complexities of lines that stratify and order through a regime of signs and pragmatic systems (expression and content, collective assemblages of enunciation and machines of desire). At the same time, lines of flight may break free, bend, seep and twist into new shapes, becoming rhizomatic as they escape from that territory (deterritorialise) and reach across to form other multiplicities (Deleuze & Guattari, 1980/1987, p. 505) and new territories (re-territorialise).

Figuring assemblages as rhizomes allows a way to understand their tentacular and fibrous nature. Assemblages have no controlling centre, no beginning or end-point, but form and reform through processes of territorialisation, de-territorialisation and re-territorialisation. They are a process, nothing more than their connections. And like Barad's explanation that agential separability gives rise to ontological specificity, Deleuze and Guattari (1980/1987) say "multiplicities are defined by the outside: by the abstract line, the line of flight or deterritorialization according to which they change in nature and connect with other multiplicities" (p. 9). It is the boundary, or threshold where the assemblage changes that gives it its particularity. In continual process:

A multiplicity is continually transforming itself into a string of other multiplicities, according to its thresholds and doors … each multiplicity is defined by a borderline … there is a string of borderlines, a continuous line of borderlines (*fiber*) following which the multiplicity changes … A fiber strung across borderlines constitutes a line of flight or of deterritorialization. (Deleuze & Guattari, 1980/1987, p. 249)

What emerges in "becomings of passage" (Deleuze & Guattari, 1980/1987, p. 250) over thresholds—as lines of flight are taken up and followed—is part of the on-going dance and movement of assemblages.

Smooth and striated space

As assemblages form territories, Deleuze and Guattari characterise these territories as smooth or striated space. Striated space is a homogenous territory, where coded lines stratify and order the milieu, creating a restricted sedentary sameness where regulating systems construct and confine patterns of being. A structure is a "regularised infolding of an aleatory outside" (Massumi, 1992, p. 58), a temporary prevention of disorder. Smooth space is the space of heterogeneity, wild forces and runaway local events, a space of becoming different—differenciating—to what one/it was before. Smooth space is composed of movement and change:

... it is directional rather than dimensional or metric. Smooth space is filled by events or haecceities, far more than formed and perceived things. It is the space of affects, more than one of properties. It is *haptic* rather than optical perception. Whereas in the striated forms organize a matter, in the smooth materials signal forces and serve as symptoms for them. (Deleuze & Guattari, 1980/1987, p. 479 italics in original)

Smooth and striated space—the nomad and the sedentary—are not binary opposites, rather they co-exist in mixture and flux as "smooth space is constantly being translated, transversed into a striated space; striated

space is constantly being reversed, returned to a smooth space … and the two can happen simultaneously" (Deleuze & Guattari, 1980/1987, pp. 474–475).

Virtual-actual-threshold

Deleuze and Guattari refer to the co-resonating systems of the virtual and the actual. The virtual is a field of difference or intensities, out of which the extensive or actual world arises (May, 2005). Virtuality exists as the potentiality of becoming, before actualising into a material or determinate state, "the universe is a double-faced supermolecule, each face of which is a supermolecule in its own right" (Massumi, 1992, p. 66). When each side of the virtual-actual interact in an intense threshold state, more than one potential state is present. In this in-between threshold moment, what becomes actualised is in response to the multiple lines, intensities, forces, flows and affects operating in an assemblage and in the localised 'subpopulations' of an individual.

Barad too speaks of the virtual-actual interface. "Entanglements of spacetimemattering are threaded through and inseparable from the infinite alterity of the virtual" (2017a, p. 162). Bringing us to the void, or virtuality, by way of quantum physics rather than philosophy, she speaks of in/determinacy, of virtual particles that "teeter on the edge of the infinitely thin blade between being and nonbeing" (2017b, p. 7), that become material particles and then return into the vacuum.

> The void is a dynamism of indeterminacy, a threading through of living with dying and dying with living, a desiring orientation toward being/becoming that cannot a-void matters of life and death. The vacuum is far from empty; rather, it is flush with yearning, with innumerable possibilities/imaginings of what was, could be, might yet have been, all coexisting. (Barad, 2017b, p. 8)

Becoming and differentiation

Like Barad, Deleuze and Guattari consider a world of multiplicities and becomings "that exist through and because of a process of continuous,

spontaneous, *open-ended* different/ciation" (Rae, 2014, p. 89 italics in original) or differential becoming. A process in which both the virtual and the actual "aspects of multiplicities" (Rae, 2014, p. 87) are joined.

The sense in which Deleuze and Guattari use the word *difference* is not categorical and judgemental, assuming a static identity and comparing differences between things, objects, others. Rather, it is a creative life affirming force, produced through intra-active relationship and resulting in becoming-other than what one (it) was before. "It is generated through movement and invention; it both draws on the already known, and it generates something new" (Davies, 2014, p. 29). As May (2005) explains:

> For Deleuze living consists in difference and its actualization. Difference is not a thing, it is a process. It unfolds—or better, it is an unfolding (and a folding, and a refolding). It is alive. … To ask what living consists in is to ask about this vitality at the heart of things. (p. 24)

May (2005) is careful to point out the extensiveness of Deleuze's concept of difference—"[living] can be a mouth, a gesture, a style, a relationship. It can be a group or an epoch" (p. 24). Becoming is different/ciating as multiplicities manifest themselves in continuing movement and flux.

Becoming is a process of deterritorialisation—undoing and redoing—into something other. Becoming is what happens in the in-betweens, in the middle of relationship. "A becoming is neither one nor two, nor the relation of the two; it is the in-between, the border or line of flight or descent running perpendicular to both" (Deleuze & Guattari, 1980/1987, p. 293). Deleuze and Guattari (1980/1987) give the example of the orchid and the wasp:

> The line of becoming that unites the wasp and the orchid produces a shared deterritorialisation: of the wasp, in that it becomes a liberated piece of the orchid's reproductive system, but also of the

orchid, in that it becomes the object of an orgasm in the wasp, also liberated from its own reproduction. (p. 293)

And while the wasp and orchid may repeat their unification, each repetition is different from the one before. And so each unique "actualisation or differenciation is always a genuine creation" (Deleuze, 1968/1994, p. 212). As Colebrook (2002) says, "Difference is not the difference between different forms, or the difference from some original model; difference is the power that over and over again produces new forms" (p.123). As in Barad's iterative intra-activity, repetition is productive of differential becoming.

This on-going different/ciating emergence is the territory of KC performance, as lines of flight are taken up—or refused—and thresholds are crossed. In Chapters 5-9 I explore the forces at play in the momentary assemblages of teacher⇔student encounter. I notice "becomings of passage" that arise from the in-betweens, as students, teachers and the more-than-human, continually become other—different—from what they were before.

The self, subject under erasure

Barad's theory of performative intra-activity, and Deleuze and Guattari's philosophical concepts challenge taken-for-granted humanistic notions of an individualised self acting on the world. Rather, the self is conceived as a relational process, a multiplicity constituted as becoming and emergent in/of the material-discursive intra-acting world—"a subject-in-relation, in-process" (Wyatt et al., 2011, p. 8). Massumi (2002b) refers to a "self-", adding the hyphen as a reminder that "'self' is not a substantive but rather a relation" (p. 14). The subjected self emerges as a "way of being" rather than a "fixed being … a verb rather than a noun" (Hultman & Lenz Taguchi, 2010, p. 532). Davies (2014) puts forward the notion of the subject under erasure—subject—to remind the reader that "the subject is not so much an entity as an intra-active becoming" (p. 34).

In the constant movement of events in which humans and nonhumans, organic and inorganic, are contingently formed through intra-action, individuation is the becoming of a form (Nordstrom, 2018). That form is always in motion and composing itself—never static or complete—never a separate individualised entity. Individuation is a phase, never occurring in isolation and never exhausting its potential (May, 2005, p. 87). It is an on-going process of continual becoming.

If the self as a subject-in-relation is continually differenciating in a process of flows, intensities, and connectivity, what then becomes of one's sense of self?

Deleuze (1990/1995) said, "Felix and I, and many others like us, don't feel we're persons exactly. Our individuality is rather that of events, which isn't making any grand claim, given that haecceities [explained below] can be modest and microscopic" (p. 141). Of the "I", he says elsewhere "We are all contemplation, and therefore habit. *I* is a habit" (Deleuze & Guattari, 1991/1994, p. 105 italics in original). Colebrook notes: "We are nothing more than our contracted habits and contemplations; we are events *of life*—and a life that is nothing outside all these singular expressions" (2002, p. 83 italics in original). And what is a habit? It is the contraction and embodiment of lived action and memory "folded into the fabric of everyday life" (Massumi, 1992, p. 73).

Being open to the process of becoming, of constant emerging individuation, means de-centreing from the habit of "I" and the notion of Self as a coherent and stable entity. It means "breaking loose from fixed ways of knowing and being" (Davies, 2014, p. 55), and paying attention to processes and flows of becoming, moving into an "un-self-consciousness" (Davies, 2014, p. 56). While, as Davies (2014) notes "the individualized subject's *specificity* is ontologically real" (p. 35 italics in original), getting stuck in accretions of memory, habit and experience and relating to these as a stable, unified 'Self' identity make an individual vulnerable to losing agency through the need to maintain and defend this identity.

In a posthuman 'self-', un-self-conscious accounting, the sense of 'self' doesn't disappear. Rather, it moves. It de-centres. It shifts in relation to 'it-self'. It picks up its bags and migrates, from inside the confines of accrued habit and identity—which are still retained and sedimented in the body—to become an open awareness at the very boundaries and edges of 'self', the threshold where new possibilities, new connections, and new becomings lie.

Haecceities

Individuation is a process of subjectification, and may be personal or collective. Deleuze (1990/1995) writes:

> Now, there are many types of individuation. There are subject-type individuals ("that's you…", "that's me..."), but there are also event-type individuations where there's no subject: a wind, an atmosphere, a time of day, a battle. (p. 115)

He calls an event type individuation an 'haecceity'. An haecceity is an entire assemblage in its individuated aggregate "independent of forms and subjects, which belong to another plane" (Deleuze & Guattari, 1980/1987, p. 262). It is a becoming, a 'this-ness', in which the inseparable intra-acting components of an assemblage enter into composition with each other and become the event—the haecceity. "This should be read without pause: the animal-stalks-at-five-o'clock" (Deleuze & Guattari, 1980/1987, p. 263). The animal, the stalking, the time of day, all intra-act to compose the event, the haecceity.

So when Deleuze (above) spoke of his sense of himself not as a person as such, but as events, he was referring to his capacity to reach beyond the shell of his sedimented experiences and open himself to haecceity, to the flow of intensities and affect that were happening in the moment of an event.

Haecceities are flow and movement, speed and duration. "Relations of movement and rest between molecules or particles, capacities to affect

and be affected" (Deleuze & Guattari, 1980/1987, p. 261). There may be moments in which one experiences a wide and pure awareness of an haecceity—perhaps as part of a yogic or meditation practice, perhaps through taking a mind-altering substance, perhaps as a moment of grace—moments in which one's sense of self extends beyond the bounds of the physical body to the manifold intra-active connections of which 'one' is a part. Or, perhaps, de-centreing from a humanistic notion of self as a discrete singular individual, and holding an orientation to thinking about the 'self' as composed with others in haecceity, is a way of holding on to being open to the 'thisness' of life in its iterative unfolding.

Affect

Closely related to and entwined with the notion of haecceity is the concept of affect. While an experience of haecceity may be thought of as an opening of awareness to the 'lines' of movement and connection in a particular individuated moment or event, affect **is** the movement that influences what is possible in that event. Affect is key to relations and the 'in-betweens', and thus to the actualising of potential. Affect is the productive force in relational encounters, the movement and momentum that give rise to becoming. Affect brings life and vitality to the world.

The field of affect theory is vast, with various interpretations active in social and cultural studies (Clough, 2009; Gregg & Seigworth, 2010; Massumi, 2002b, 2015; Matus, 2017; Murphie, 2010; Wetherell, 2015). In their discussion of major theoretical frameworks for understanding affect, Siegworth & Gregg point to two main vectors of study: "Silvan Tomkins's psychobiology of differential affects … and Gilles Deleuze's Spinozist ethology of bodily capacities" (2010, p. 5). They draw attention to a "certain inside-out/outside-in kind of difference" (2010, p. 6) as Tomkin's work tends to move from the biological to the social, and a Deleuzian "Spinozan route locates affect in the midst of things and relations (in immanence) and, then, in the complex assemblages that come to compose bodies and worlds simultaneously" (2010, p. 6). Seigworth &

Gregg acknowledge that while these two vectors of theory cannot be easily reconciled, at times they can be "made to interpenetrate at particular points and to resonate" (2010, p. 6). In gingerly wading into these somewhat tumultuous waters, I follow Massumi's (2002b, 2005, 2015) interpretations. Massumi's theorising draws on and develops Deleuze and Guattari's rendering of affect as the connecting force relations in assemblage. This explication of affect speaks closely into Barad's theory of posthuman performativity (Ringrose & Renold, 2016) and so meshes with the theoretical orientation of my thesis.

In an interview with McKim, Massumi (2015; 2009) describes affect as a dimension of every event, and refers to Spinoza's definition of affect as the "ability to affect or be affected" (p. 48). Drawing on Deleuze, he continues: "the power to affect and be affected governs a transition, where a body passes from one state of capacitation to a diminished or augmented state of capacitation. This comes with the corollary that the transition is *felt*" (Massumi, 2015, p. 48). Affect, as it moves through transitions and thresholds, and arises in in-between-ness:

> … [is] found in those intensities that pass body to body (human, nonhuman, part-body, and otherwise), in those resonances that circulate about, between, and sometimes stick to bodies and worlds, *and* in the very passages or variations between these intensities and resonances themselves. Affect, at its most anthropomorphic, is the name we give to those forces—visceral forces beneath, alongside, or generally *other than* conscious knowing, vital forces insisting beyond emotion—that can serve to drive us toward movement, toward thought and extension, that can likewise suspend us (as if in neutral) across a barely registering accretion of force-relations, or that can leave us overwhelmed by the world's apparent intractability. (Seigworth & Gregg, 2010, p. 1 italics in original)

We live in an affective constantly moving changing world. Massumi goes so far as to say that "Affect *is* the whole world: from the precise angle of its differential emergence" (2002b, p. 43). Each movement (no matter how subtle) is accompanied by affect, by a force or intensity, from an imperceptible vibration to a violent rupturing. And not just by one force, but by many cross-circulating currents of forces arising and fading in constant flux. Affect is constantly materialised and circulated, felt (or not) through body sensations (affected and affecting), as matter⇔discourse affects matter⇔discourse. Affect as force or intensity, drives, mobilises or suspends action. Affect can fold in and over itself, rising in intensity or dampening down and fading out. Arising in the threshold, affect is present in every relation or connection, an intimate part of every assemblage.

As I trace the flow of affect in the research stories, the vital role it plays as a 'governing force' in the performance of KC-actions becomes evident. Not only does affect serve to modulate emergent action, the embodied or felt experience of the movement or transition of affect is an indication that virtual potential is materialising in actual lived experience as thresholds are crossed and lines of flight taken. I turn to Massumi here to explain this theory further. In Chapter 10 I re-turn to Massumi and think with affect and the KCs.

Virtual potential

Massumi (2002b) refers to the infinite potential of the virtual world. He explains that potentiality tapers to become various possibilities depending on the constraints of a particular assemblage.

> Possibility is back-formed from potential's unfolding … … Potential is unprescribed. It only feeds forward, unfolding toward the registering of an event: bull's-eye. Possibility is a variation *implicit in* what a thing can be said to be when it is on target. Potential is the *immanence* of a thing to its still indeterminate variation, under way. (p.9)

Within the constraints of each becoming, numerous possibilities remain, depending on the flux, flows and intensities of each moment. What emerges into actuality is a "two-sided coin: one side in the virtual (the autonomy of relation), and the other in the actual (functional limitation)" (Massumi, 2002b, p. 35). Affect, Massumi states, is:

> precisely this two-sidedness, the simultaneous participation of the virtual in the actual and the actual in the virtual, as one arises from and returns to the other. Affect is this two-sidedness *as seen from the side of the actual thing*, couched in its perceptions and cognitions. (2002b, p. 35 italics in original)

The embodied sensations that students and teachers experience in relational encounters are thus a cue—a pointer—that potentially new ways of becoming are present, the shape of their emergence constrained by the forces operating in the moment.

Embodied material beings

As human-beings, we perceive affect through the sensations of our material bodies (touch—tactile, proprioceptive, visceral; sight; sound; smell and taste) and layer it with the material⇔discursive context, personal histories, thoughts and memories to respond or react in particular ways. As our bodies respond to the vibratory forces of affect, we experience movement—ranging from gross motor movement to subtle shifts in bodily sensation or feeling tone. Our movements, in turn, affect others as part of the on-going dance of entanglement.

It is in the shift from bodily perception to the naming and expression of that perception that emotion is invoked. Massumi suggests reserving the term 'emotion' to describe the personalised contextualised content of an event. In contrast, he notes that affect is trans-situational, inhabiting the passage. "Impersonal affect is the connecting thread of experience. It is the invisible glue that holds the world together" (2002b, p. 217).

The autonomy of affect

It is this fusion of the actual world with the virtual that differentiates the Spinozist/Deleuzian/Massumian vector of affect from more socio-biological-psychological interpretations. While both are sensed and expressed in and between bodies, for Massumi the arising of affect from the virtual/actual interface means that not all is captured in or by bodies. Massumi (2002b) asserts that affect is autonomous, a force or intensity that passes through and between bodies, at the same time escaping (total) confinement in bodies. It is when one perceives that which is outside-oneself, that which has escaped capture, one is connected to forces larger than oneself.

And so affect flows:

> … [it] travels and takes shape through a complex web of relations, contingencies, and surfaces. Affect is something that invisibly happens, seems to act as a force with no intelligible location, and pertains to no-one … Affect orients, stimulates, and incites bodies toward specific actions. (Matus, 2017, p. 239)

At the same time as it operates as an invisible force, such as acting on the incorporeal corpus of 'the student body' in the school on the day of exams as told in Chapter 5, affect is experienced in the materiality of human bodies and is part of the haecceity of the moment.

Agency

From a humanist perspective, the notion of agency is centred in the human as an ability to make conscious choices to act on the world. Young people are described as 'having agency' to make decisions and act in competent ways. In a posthuman ontology, the concept of agency shifts from a human act of will or determination to movements and changes—human and more-than-human—that emerge through material⇔discursive intra-actions. In a world of dynamic becoming, agency is "diffusely enacted

in complex networks of relations" (Alaimo & Hekman, 2008, p. 13). Space and place become active agents in the unfolding of events as much as flows of affect, the weather, particular discursive practices, histories, memories, and all kinds of matter.

In the context of this study—as my later analysis shows—by reading 'taking action' through Barad's account of 'agency', new appreciations of how the front-half of the curriculum may be given effect are brought to life. In Barad's account of agential realism, agency is conceived as an on-going "ebb and flow" (2007, p. 140), a "matter of intra-acting; it is an enactment, not something that someone or something has … … Agency is 'doing' or 'being' in its intra-activity" (Barad, 2007, p. 178). Barad explains that in each and every moment, particular possibilities for becoming exist, and agency is about these changing possibilities and how they re-configure the world. Agency is *"iterative reconfigurings of topological manifolds of spacetimematter relations—through the dynamics of intra-activity"* (Barad, 2007, p. 178 italics in original).

In this understanding, agency is not a self-directed individual pursuit, but is matter of taking up possibilities—affordances—that are continually opening, shifting, changing in the processes of the world's reconfiguring and becoming. How agency is enacted, which actions are taken, is shaped and influenced by the intensity of the (material⇔discursive) forces operating in that moment.

Thing power and distributed agency

As a way to interrupt thinking that classifies matter as inert and passive, Bennett (2010, 2011) coined the notion of 'thing-power' to describe the capacity of material substance and objects to exert calls and forces that have very real, social and political effects in the world. This vibrant liveliness is "the ability to make things happen, to produce effects" (2010, p. 5). In arguing that matter has a vibrancy that is agentic, that matter and objects themselves become what she calls actants in an assemblage, Bennett introduces the notion of distributive or confederate agency. She draws on Spinozan and Deleuzo-Guattarian theorising, noting that:

> …bodies enhance their power in or *as a heterogeneous* assemblage. What this suggests for the concept of agency is that the efficacy or effectivity to which that term has traditionally referred becomes distributed across an ontologically heterogenous field, rather than being a capacity localized in a human body or in a collective produced (only) by human efforts. (Bennett, 2010, p. 23 italics in original)

An emergent causality is at work, in which the dynamic complex intra-actions of swarming vitalities (Bennett, 2010) generate particular effects depending on the intra-action of differing intensities and differing bodies as they continually infuse one another. In this sense "emergent causality places the focus on the process as itself an actant, as itself in possession of degrees of agentic capacity" (Bennett, 2010, p. 33).

Agency, possibility and affordances

As an intra-active doing, agency is not a self-directed individual pursuit, but is matter of taking up possibilities that are continually opening, shifting, changing in the processes of the world's reconfiguring and becoming. How agency is enacted, which actions are taken, is shaped and influenced by the intensity of the (material-discursive-affective) forces operating in that moment. These forces may restrict or close possibilities for action as much as they might offer possibilities or affordances (Zembylas, 2017). Neither is the closing or opening of possibilities a mere binary choice. In the dynamic, intra-penetrating, co-mingling, pulsating swarm of an assemblage, the opening or closing of possibilities for action is a fluid unfolding bi-furcating process as lines of force and intensity intra-act, knot and swirl around and through each other.

Arguing that a posthuman concept of agency explodes the humanistic notion of agency as driven by an intentional act of will or volition, is not to say that will and volition are not present. But they do not arise from nothing, or even from something as elusive as 'personal character'. 'Will' or 'volition' as drivers of action have many discursive and felt

antecedents—in past becomings and anticipated futurity. They become part of the mix of the assemblage, one of the **many** threads of force and intensity operating in the encounter. In her consideration of the subject-as-intra-active-becoming, Davies (2014) suggests that "agency lies, not in individual wilful acts, but in the creative evolution made possible through openness to the other and to the not-yet-known" (p. 37).

Putting theory to work – a diffractive analysis

A diffractive reading or analysis of research materials takes as its starting point the entangled and dynamic nature of being in the world. An encounter, phenomenon, or assemblage is understood as an intra-acting and mutually constitutive apparatus of bodily production, engaged in an unfolding emergent process. Haraway (1992) proposed diffraction as a metaphor for critical analysis, defining it as "a mapping of interference, not of replication, reflection, or reproduction. A diffraction pattern does not map where differences appear, but rather maps where the effects of differences appear" (p.300). Barad (2007) followed Haraway to develop the metaphor of a diffractive reading of "insights through one another in attending to and responding to the details and specificities of relations of difference and how they matter" (p. 71). As an analytical method, diffractive readings are "attuned to difference—differences that our knowledge-making practices make and the effects they have on the world" (2007, p. 72).

Barad (2007) explains that in classical physics diffraction "has to do with the way waves combine when they overlap and the apparent bending and spreading of waves that occurs when waves encounter an obstruction" (p. 74). As waves pass through diffractive gratings or apparatus (Barad gives as an example ocean waves passing through a barrier or obstruction), they spread out. When separate waves pass through the grate and overlap with each other, diffraction patterns are produced. She notes that diffraction plays an "even more fundamental role in quantum physics … [where] recent studies of diffraction (interference) phenomena have

provided insights about the nature of the entanglement of quantum states …" (pp. 72-73). The field of quantum physics has made known the extraordinariness of the world in which space, time and matter are entangled in weirdly random, continuous and dis-continuous ways.

In a diffractive reading "what is at issue is the primacy of relations over relata and the intra-active emergence of 'cause' and 'effect' as enacted by the agential practices that cut things together and apart" (Barad, 2007, p. 389). Thinking diffractively thus becomes a process of "paying attention to entanglements of matter and meaning" (Taylor & Gannon, 2018, p. 466), of noticing overlappings, interference, difference and their effects (Lenz Taguchi, 2012, p. 272), and attending to the relational nature of differences and the differences that make a difference (Barad, 2007, p. 72).

In terms of using diffractive analysis as a methodology in this thesis, there are three points that are important here. One is the diffractive grate, the second is Barad's call for a topological analysis, and the third is the entanglement of researcher and research.

The diffractive grate/apparatus

In science, diffractive gratings or apparatus (Barad uses both terms) "are instruments that produce patterns that mark differences in the relative characters (i.e.: amplitude and phase) of individual waves as they combine" (Barad, 2007, p. 81). Diffraction experiments are used to learn about the substance that is passing through the grate, or to learn about the grate itself (Barad, 2007, p. 83). A diffractive apparatus may not only shape an interference pattern, but also (by working backwards) become a means of knowing about the characteristics of the different waves that make up that pattern. Thinking about the characteristics of the waves, and the interference patterns, also produces knowledge about the apparatus.

A diffractive grate is both productive of particular specific entanglements, and may be used as a method of untangling and learning about phenomena. As material-discursive phenomenon (Barad, 2007, p. 389),

diffractive grates are both productive forces in particular entanglements **and** the particular way with which one thinks, in order to learn about the entanglement:

> [S]o while it is true that diffraction apparatuses measure the effects of difference, even more profoundly they highlight, exhibit, and make evident the entangled structure of the changing and contingent ontology of the world, including the ontology of knowing. In fact, diffraction not only brings the reality of entanglements to light, it is itself an entangled phenomena. (Barad, 2007, pp. 72–73)

Returning to educational research, a diffractive methodology draws on these scientific discoveries to think about specific material⇔discursive entangled phenomena and encounters. In a diffractive analysis agential cuts are made in the research material to think with the different entanglements operating in an encounter. The act of 'cutting' creates a boundary that both opens space for analysis and creates new/other entanglements. The entanglements that are made visible by the cut are then read through a diffraction grate or apparatus. Because each entanglement is a specificity, "apparatus must be tuned to the particularities of the entanglement at hand" (Barad, 2007, p. 74). The insights that emerge from this thinking are read through one another to notice relations of difference. Thus, the way of thinking about each encounter becomes the diffractive grate, and is productive of the knowledge that is made known. As Haraway (2016) says—it matters what thoughts we think with.

The topology of spacetimemattering

A diffractive approach also means thinking topologically (Barad, 2007), probing material-discursive intra-activity as it "iteratively reconfigures the spacetimematter manifold" (p. 246). Following quantum physics, notions such as space and time are understood not to pre-exist their mutual mattered entanglement, rather they are constituted in the phenomenon of intra-activity. Time is not linear. Space is only so because that is how we perceive and measure it. In the quantum world, manifolds bring apparently

dis-continuous and dis-parate points together and—connected by wormholes—'weird' relations can occur.

A topological analysis explores the effects of genealogies and histories as productive forces in events as much as what can be seen in the materialised 'now'. In fact, the notion of 'now' is tumbled and disturbed as 'here' and 'there', 'now' and 'then' intermingle with possible futures and previous happenings as constitutive forces in unfolding events (see Barad, 2014). So, a topological account considers "… questions of boundary, connectivity, interiority, and exteriority" (Barad, 2007, p. 244), following lines of inquiry through diverse trajectories.

Entangled researcher⇔reading⇔material

In a diffractive analysis the researcher⇔reading⇔material are recognised as a co-constitutive event, entangled through and with each other. The body of the researcher and the body of the research become affectively in composition together, as new ways of thinking and understanding "spread knowledge differently" (Jackson & Mazzei, 2012, p. 134).

Reading diffractively requires a researcher to take a respectful, open and curious stance in relation to the material, cultivating the ability to "imagine other possible realities presented in the data: a real *beyond* those produced by processes of recognition and identification in reflexive interpretations or discursive perspectives or positionings" (Lenz Taguchi, 2012, p. 267 italics in original). Haraway (2016) writes of researcher Vinciane Despret that she "trains her whole being, not just her imagination … 'to go visiting'" and cultivates "the wild virtue of curiosity, to retune one's ability to sense and respond—and to do this politely" (p. 127). Likewise, Taylor (2016a) develops the notion of diffractive musing as a generous, embodied and sensory way of engaging in critique (p.201).

The whole body of the researcher is involved as "we need all of our *bodymind* to explore the co-constitutive relationships between discourse and matter in order to transgress what we already know as we extend knowing into other potential realities" (Lenz Taguchi, 2012, p. 267 italics in

original). The researcher becomes intimately involved in noticing the tensions and forces in "the interconnections emerging in between different matter, matter and discourse, in the event of engagement with the data" (Lenz Taguchi, 2012, p. 267). Mazzei (2013) cites Braidotti in thinking of her body as "an interface, a threshold, a field of intersecting material and symbolic forces" (p. 779). She notes that a focus on onto-epistemology acknowledges that the body is "*always, already* in the work" (p. 779 italics in original). The bodily responses of the researcher to the material becomes material in itself to be explored and examined.

In intra-action with the research materials, the researcher and the materials are constituted and reconstituted, or undone and redone. Mazzei (2013, p. 779) speaks of a throwing out and a throwing back as she intra-acts with data. She notes that this has the potential of producing new knowledge **and** new becoming selves. This dance with data/material/artefacts is produced through 'reading' and becoming-with the data. (Lenz Taguchi, 2012, p. 272). The data/material⇔event⇔researcher⇔research⇔writing⇔speaking become a performative assemblage, constituting and re-constituting each other.

Ethical relationalities

Posthuman understandings of the world, as always entangled and becoming, shift ethical considerations from the ground of moral judgements of the 'right' and 'wrong' thing to do, to response-ability for the effects of our intra-actions on the world. Possibilities for:

> … what the world may become call out in the pause that precedes each breath before a moment comes into being and the world is remade again, because the becoming of the world is a deeply ethical matter. (Barad, 2007, p. 185)

Barad (2007) is very clear that "intra-actively emergent 'parts' of phenomena" remain entangled even when an agential cut has been made

(p. 393). There is no radical exteriority to the other. In our co-constitution, 'we' and 'others' are "entangled through the very cuts 'we' help to enact" (2007, p. 179). Barad draws on this understanding to explicate her stand on ethical responsibility. We are accountable for the marks we make, the effects we have on the becoming world. She speaks of the mutual entailment of ethics, being and knowing, which she calls an ethico-onto-epistem-ology (2007, p. 185). Ethical responsibility and accountability reside in and emerge from each threshold moment and the immanent possibilities whirling within it.

An ethical practice, from a posthuman perspective, calls for paying attention to the possibilities of each moment and how we can be "open and alive to each meeting, each intra-action, so that we might use our ability to respond, our responsibility, to help awaken, to breathe life into ever new possibilities for living justly" (Barad, 2007, p. x). Paying attention means operating from an ethic of care, as we don't know how even small actions might ripple outward to produce large effects (Massumi, 2015).

In a 'micropolitics' (Bennett, 2010) of everyday life, the possibilities for action we take up have on-going effects in the mattering of the world. Bennett (2010) asks the thorny question "Do I attempt to extricate myself from assemblages whose trajectory is likely to do harm?" (p. 37) and uses the analogy of riding a bicycle on a gravel road, to underscore how agency, as distributed through an assemblage, may still be activated to affect the trajectory of that assemblage. "One can throw one's weight this way or that, inflect the bike in one direction or toward one trajectory of motion. But the rider is but one actant operative in the moving whole" (p. 38). And while she claims that outrage at particular injustices in the world is "indispensable to a democratic and just politics" (p. 38), an understanding of distributive agency resists a politics of singular blame and moralising, and instead points to a need "to produce guides to action appropriate to a world of vital, crosscutting forces" (p. 38).

For Deleuze, accepting the liveliness of the world means paying attention to what we do so life (ours and others) is extended to its fullest potential (Colebrook, 2002). Ethics rests on the possibilities of differenciation in each and every moment. Moving from the moral ground of what we 'should' be, based on transcendent values, ethics "implies that we do not yet know what we might become" (Marks, 2010). In engaging in life in all its complexities, Deleuze described living ethically simply as "not to be unworthy of what happens to us" (1969/1990, p. 153).

As an exercise in thinking-in-doing, knowing-in-being (Taylor, 2016a), and entangled writing, this thesis too is infused with ethical questions and responsibilities. What does it do? How might the thoughts and ideas expressed here entangle with other thoughts and ideas to give rise to different matterings? How might they intra-act with past-future-present in ways that do not perpetuate violence to others but are life affirming? Questions of ethics and justice, the consequences of what is said, what is not said, and how it is said remain always already entangled in this work.

Chapter 3: Mapping the territory

In this chapter I explore the development of the doubled helix of the key competencies (KCs) of the New Zealand Curriculum (NZC) and culturally responsive pedagogies (Bishop, Berryman, et al., 2014). Although emerging as transformative forces in the territory of mainstream English-medium schools in much the same timespace, these two advances have largely remained theoretically distant from one another. In this chapter, I take a linear human centred approach to trace the lines of each pedagogical development. In a doubled movement of exploration and critique (Lenz Taguchi, 2016), I first situate these two developments in the wider context of the effects of neo-liberalism on NZ schools. Then, as the KCs and culturally responsive pedagogies each have a distinct history and desire, I separate this chapter into two sections. In the first section I traverse the terrain of the development of the KCs. In the second I introduce the landscape of culturally responsive pedagogies and how they might meet with the KCs in Aotearoa New Zealand. This exploration sets the scene for later chapters in this thesis where the intertwining of forces from each approach may be observed as they actualise in the contested space of the school.

The reach of neo-liberalism in education

The time of the development of the NZC and the growth of Kaupapa Māori initiatives in education (Bishop, Berryman, et al., 2014; Bishop & Glynn, 1999; Hoskins, 2012; G. Smith et al., 2012) was one of rapid political change taking place throughout the world. Of significance was the international rise of market-driven neo-liberal economic policies expounded by the Chicago School of Economics (Read, 2009). Caught in the rip tide of this school of thinking, the fourth Labour government (1984-1990) introduced a raft of radical changes to Aotearoa New Zealand. The 1980s saw the move to a de-regulated market-based economy and commercialisation of much of the state sector (Boston, 1987). Included in

this wave of reform, was a re-structuring of the education system. In 1988, in an initiative called *Tomorrow's Schools*, the government largely adopted the recommendations of a taskforce headed by former president of the Chamber of Commerce, Brian Picot (Openshaw, 2014). Passed into law in October 1989, *Tomorrow's Schools* established a new Ministry of Education with responsibility for setting minimum standards, curriculum development and facilitating accountability. Administration devolved to local schools, which became "autonomous, self-managing learning institutions, controlled by locally elected boards of trustees, responsible for learning outcomes, budgeting, and the employment of teachers" (Openshaw, 2014, p. 1). As a result, Aotearoa New Zealand now has one of the most de-regulated education systems in the world (Hipkins, 2016). In a paradoxical move of 'rolling back' and 'rolling out' (Bondi & Laurie, 2012), reporting requirements have also escalated under neoliberalism. "As power becomes less restrictive, less corporeal, it also becomes more intense, saturating the field of actions, and possible actions" (Read, 2009, p. 29). In Aotearoa New Zealand, education governance shifted to an audit and accountability culture, as was evidenced by the—now repealed— implementation of National Standards in primary schools.

Neo-liberalism's long reach has continued to extend as private enterprise wields more and more influence in public education world-wide. In addition to changing the very structure by which education is delivered, neo-liberal ideology contests the purpose of education, channeling it to "meet the immediate needs of the economy" (Giroux, 2013, p. 440). Knowledge has become instrumentalised, as the market-driven forces of measurement of student achievement and engagement have taken hold, limiting and repressing pedagogy (Giroux, 2013; Matus, 2017).

Big business has become intimately linked with the production of "future focused" learning skills, as companies team with education providers in technological resource development. An example was the Assessment and Teaching of 21st Century Skills (atc21s, 2012) collaboration between businesses Cisco, Intel and Microsoft and educational leaders in six

founder countries (Australia, Finland, Portugal, Singapore, the UK and the USA), based at the education department of the University of Melbourne. In Aotearoa New Zealand, the influence of business in the growth of Enterprise studies in schools is another example (Oldham, 2017). Oldham notes that the Young Enterprise Scheme is supported more by large companies than it is by public education. He tracks this influence into the NZC itself, pointing to the inclusion in the NZC vision that young people will grow to be enterprising and entrepreneurial (Ministry of Education, 2007, p. 8). The occupation of the NZC by business interests is also evidenced in the alignment of the KCs to employability. To visualise the tertiary education follow-on to the KCs, Hipkins (2018) directs readers to the Youth Guarantees initiative website, which now hosts the curricula cross-sector KC alignment diagram from the NZC (Ministry of Education, 2007, p. 42). This diagram depicts the alignment of KCs from early childhood through to tertiary education. On the Youth Guarantees website, "the accompanying notes have an emphasis on employability rather than the contribution that a tertiary education might make to the development of key competencies per se" (p. 9). When business is influencing educational change, I argue, we need to keep asking the questions: "Whose interests are being served?" and "How is this shaping our world?"

In terms of supporting future-focused change and development in education, one of the more surreptitious effects of the devolution of *Tomorrow's Schools* has been the lack of a cohesive, nationally-led direction and follow-through for transformational pedagogy. Speaking in a recent radio interview of the need to develop highly skilled professional expertise and supports for teachers and school leaders, Robinson— Emeritus Professor of Education at Auckland University—commented that there has been "a complete overlooking, if not denigration, of the amount of expertise needed to be able to run a school" (RNZ, 2018, pt. 5" 20'). While researchers have been working hard to produce and disseminate new ways of thinking and doing educational practice, a cohesive national approach to bringing this thinking to practitioners has been lacking. Hipkins (2016) pointed out that New Zealand's highly de-regulated

education system has led to the varied up-take and implementation of the KCs by schools. Likewise the take-up and on-going effect of culturally responsive pedagogies has also been mixed (Berryman & Eley, 2017b). When it is left to schools themselves to organise, access and follow-through on professional development, competing demands and differing local governance outlooks has led to patchy outcomes.

Into this contested, localised and fragmented educational context, developments of the KCs and culturally responsive pedagogies are seeking traction. I now take a whistle-stop tour through the development and implementation of the KCs in New Zealand, tracing their start in the international initiative led by the OECD, to on-going and developing understandings and implementation. I particularly call on the prolific work of Hipkins and her colleagues at NZCER as leading researchers in this field.

The Key Competencies

The key competencies are both end and means. They are a focus for learning – and they enable learning. They are the capabilities that young people need for growing, working, and participating in their communities and society. (Ministry of Education, 2007, p. 38)

The key competencies of the New Zealand Curriculum appear on a surface reading as laudable qualities for young people to develop so we may all live in a well-functioning and socially just democracy. And yet it may not be as simple as that.

The New Zealand Curriculum

The current New Zealand Curriculum (NZC) (Ministry of Education, 2007) was introduced in February 2007 and became mandatory for use in NZ schools in February 2010 (Benade, 2011). Following a long period of consultation and development (Hipkins, 2010b), the NZC was designed as a framework to guide English-medium primary and secondary schools in

the development and implementation of their own local curriculum. Maori medium kura (schools) are served by a parallel document, Te Marautanga o Aotearoa. As an approach to guide and shape learning, the NZC is not a neutral document. It is an apparatus, a distillation and collation of "decision makers' beliefs about what values need to be encouraged and modelled, what counts as knowledge, and what knowledge matters for a society and its peoples in time and place" (Hunter, 2011). It is also a political document, representing the left-leaning ideology of the fifth Labour government at the time of its development (Benade, 2011), embracing a thrust towards social cohesiveness and future-focused education (Bolstad et al., 2012; Gilbert, 2005).

Through the process of the development of the NZC, it essentially became a document of two halves. As one set of teams worked on articulating the future-focused components, another set of teams redesigned the learning area (subject specialised) components. Under time pressure to produce the final version of the curriculum, "it was difficult for most curriculum teams to get to grips with and integrate novel aspects [of the future-focused component] such as the key competencies with the more traditional content" (Hipkins, 2010b, p. 9). Subsequent to the publication of the NZC it became the responsibility of individual schools to integrate the two halves into coherent learning for their students.

The future-focused 'front-half' of the NZC comprises the vision, values, principles, key competencies and effective pedagogy sections (Hipkins, 2010b, p. 8; Hipkins, Cowie, Boyd, Keown, & McGee, 2011). The NZC vision for New Zealand children is described as: "Young people who will be confident, connected, actively involved, lifelong learners" (Ministry of Education, 2007, p. 7). This vision is underpinned by principles of: high expectations, the Treaty of Waitangi, cultural diversity, inclusion, learning to learn, community engagement, coherence (of learning), and future focus. Values of excellence, innovation, inquiry, curiosity, diversity, equity, community and participation, ecological sustainability, integrity and respect, are defined as "deeply held beliefs about what is important or

desirable" (Ministry of Education, 2007, p. 10). The key competencies (thinking; managing self; relating to others; using language, symbols and text; and participating and contributing) are the action words of becoming "actively involved life-long learners" and as such they operationalize the values, principles and vision of the NZC. Hipkins and Boyd (2011) note the potential of KCs to bridge the front-half/back-half divide—that is, the divide between the ideals and the learning areas of the curriculum—as both a means and an end to learning.

The practical learning application of the principles, values and key competencies of the NZC is designed to produce students who will "seize the opportunities offered by new knowledge and technologies to secure a sustainable social, cultural, economic and environmental future for our country" and "who will work to create an Aotearoa New Zealand in which Māori and Pākehā recognise each other as full Treaty partners, and in which all cultures are valued for the contributions they bring"; who will "be creative, energetic, and enterprising" and who "in their school years, will continue to develop the values, knowledge, and competencies that will enable them to live full and satisfying lives" (Ministry of Education, 2007, p. 8).

Future-focused education

The development and production of the 2007 NZC didn't happen in isolation. Towards the end of last century there were international moves to understand and identify how education might best prepare young people for a future characterised by major shifts in technological innovation, environmental sustainability and social and economic change (Gilbert, 2005).

In 1993 the International Commission on Education for the Twenty-First Century was formally established by the European Union (Bolstad et al., 2012). Known by the name of the chair, its report was produced in 1996. The Delors Report explored the role of education in humankind's endeavours to "attain the ideals of peace, freedom and social justice" (International Commission on Education for the Twenty-first Century &

Unesco, 1996, p. 11). This report identified not only the tensions to be negotiated if this aim was to be achieved, but also expanded the notion of education to include lifelong learning. Tawil and Cougourex (2013) in their review for UNESCO of the Delors Report, note that it is widely considered to be a key reference for the conceptualisation of education and learning worldwide.

In 1997 the OECD (Organisation for Economic Co-operation and Development) launched the PISA (Programme for International Student Assessment) initiative (OECD, 2001). This programme of international comparative assessments measures performance in reading, mathematics science and problem solving. At the same time, the OECD also recognized that for students to be successful in life they needed a wider range of competencies than that provided by these basic knowledge areas. The DeSeCo (Definition and Selection of Competencies) project was established to identify what these competencies for the 21st Century might look like. DeSeCo was a close collaboration on both an international and an interdisciplinary level, drawing on the expertise of academic and business leaders within and outside the OECD. The project produced a framework that identified a specific set of competencies integrated together and underpinned by the understanding that individuals need to be able to move beyond taught knowledge and skills to tackle complex problems throughout their lives. New Zealand not only contributed to the development of this framework (OECD, 2001, p. 7), but used it as a base for the development of the key competencies of the NZ Curriculum (Hipkins, 2006).

The OECD notion of Key Competencies

The competencies identified in the DeSeCo project were called 'key' because they were determined as not only universal across cultures and throughout the lifespan, but as critical for the production of a successful life and a well-functioning society (Rychen & Salganik, 2003). They were understood to be both developmental, and learnable and teachable (Rychen & Salganik, 2003, p. 49), changing from childhood to adulthood with an individual's developing capacity for mental complexity. The OECD

report on DeSeCo (2005) noted that cultural differences in the key competencies were not in the competencies themselves, but in the value and weight given to the application of particular competencies in different situations. The DeSeCo project classified competencies into three main intersecting groups, naming a fourth 'cross-cutting' competency of reflectivity or metacognitive skills—particularly critical thinking (Hipkins, 2018)—that pertained to each of the other groups.
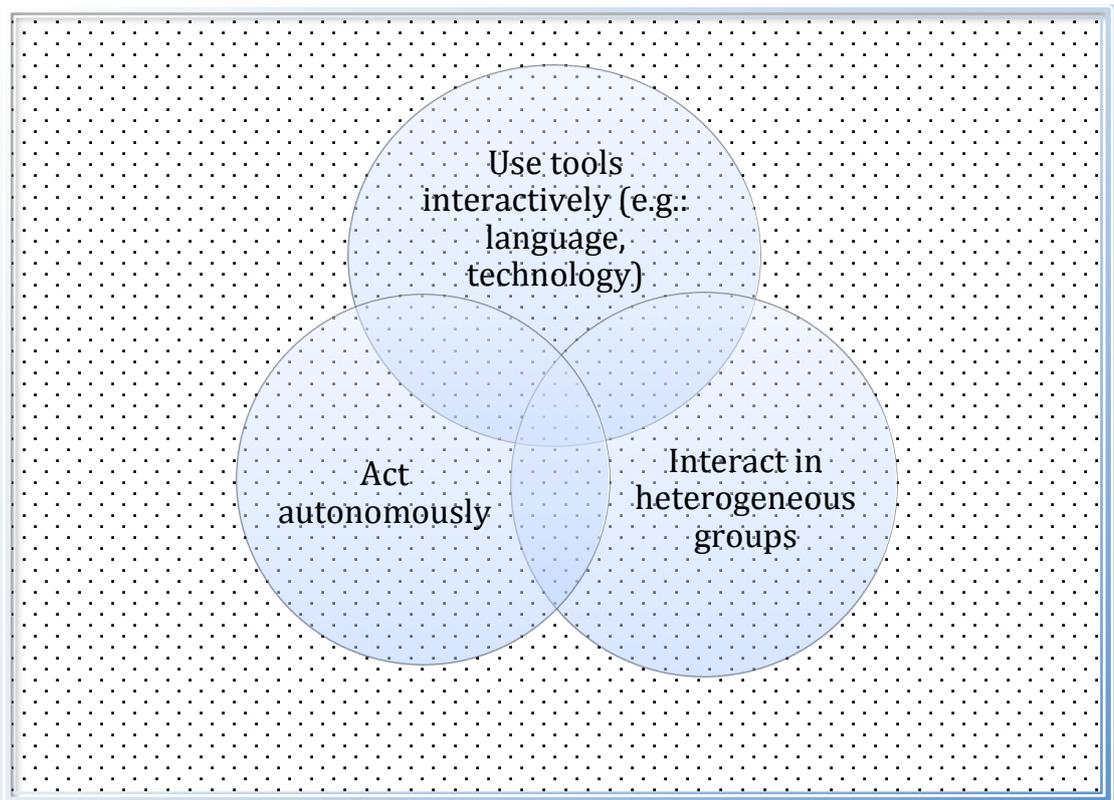
Figure 1: Three main key competencies, with cross-cutting meta-cognitive fourth competency

(adapted from OECD, 2005, p. 5)

Following a socio-cultural model, underpinning the notion of competence was an assumption that individuals relate to the demands of society in dialectical and dynamic ways, and competence was seen as inseparable from the context in which it is developed and used (Rychen & Salganik, 2003, p. 46). The KCs were understood to be more than taught knowledge and skills (Hipkins, 2008, 2010a; OECD, 2005; Rychen & Salganik, 2003). Rather, they were conceived as the capacity to respond to complex demands and were composed of attitudes, values, resources, and

dispositions "embedded within the individual" (Rychen & Salganik, 2003, p. 44). Noting that the KCs are both functional and contextually driven, the lead authors of DeSeCo comment that the primary focus of KCs is on the response an individual produces to any given situation (Rychen & Salganik, 2003).

From a posthuman perspective, it is clear that the individual human remains central in the development of the KCs. While the complex demands of differing contexts is acknowledged, an individual's capacity to respond is located squarely within—"embedded in"—him or herself. Attitudes, values, resources and dispositions remain intrinsic to the individual. The bounded individual was alive and well in the OECD, acting **on** the world, not as **part of** the world, and needing to "[take] responsibility for managing their own lives, situate their lives in the broader social context and act autonomously" (OECD, 2005, p. 4). Intra-acting material and discursive forces are elided in the individual's competent response, as are issues of political, social and economic power.

While the KCs are conceived as "not fixed" (Hipkins, 2006, p. 68), the very act of identifying and naming them acts to striate and claim a territory of human capacity to live a well-functioning life. There is a further fixing and sedimentation as the term 'competence'—when recruited by normalising humanist discourses—implies the achievement of a preferred way of acting (see Braidotti, 2013, p. 26). It heralds the insidious siblings of success and failure, trailing their shadows of moral judgement. "Emphasis is given to transversal competencies that everyone **should** aspire to develop and maintain" (OECD, 2005, p. 7 emphasis added). What happens if I don't want to, or am unable to? Do I then fall outside notions of living a 'successful' life and thus live a life marked by failure?

'Fixing' the KCs was not the intention of the DeSeCo developers. In their final report on DeSeCo, Rychen and Salganik (2003, p. 104) point out that while the KCs they present are constructed notions, they are also conceptual tools for thinking about how these notions might play out in

different contexts. In considering how the KCs relate to each other, the developers used the metaphor of a 'constellation' (OECD, 2005, p. 9; Rychen & Salganik, 2003, p. 184), with the image that the **particular mix** and production of KCs in any context would vary in response to the specific demands of that situation and the cultural values operating. The image of a swirling constellation makes space for both performativity and the notion of KCs emerging from/in/with a situation when viewed through a posthuman lens.

In these final paragraphs before moving on to explore the evolution of the KCs in Aotearoa New Zealand, I comment on the ground that the notion of KCs grows from. The business of the OECD is economic development. With 36 member countries in Europe, Asia, Australasia and the Americas, the OECD produces comparative reports on economic indicators as well as reaching into the fields of education, environmental sustainability and health and wellbeing. Supporting economic viability and growth underpins its work. Even an exposition on inequality (OECD, 2018), focuses on the economic benefits of a more even distribution of wealth. The philosophical driver behind the development of the KCs was their contribution to "measurable benefits for both economic and social purposes" (OECD, 2005, p. 7), while the benefit to the individual and society is acknowledged.

It is wise to bear these economic roots in mind and establish a non-innocent relationship with the KCs, before accepting them as self-evidently worthwhile. While they may speak to more politically or philosophically minded notions of social justice or holistic wellbeing (Boylan & Woolsey, 2015; Gewirtz, 1998; Grant, 2012; North, 2006; Walker, 2003), the question of "Who do they serve?" is one to keep alive (see Wasson, 2014).

Adapting the KCs to Aotearoa New Zealand

When adapting the DeSeCo model for Aotearoa New Zealand, there were a number of consultation processes. "Employers were among the groups consulted and there was an explicit focus on future societal and economic

developments" (Hipkins, 2018, p. 3). The final iteration of the KCs "also took account of cultural influences seen as important in the New Zealand context" (Hipkins, 2018, p. 3), focusing on communal learning and relating. The KCs were defined in ways that enabled their alignment with the curricula of the early childhood and tertiary sectors (Ministry of Education, 2007, p. 42). By the final iteration and publication of the NZC, the five KCs had been identified and described as "capabilities for living and lifelong learning" (Ministry of Education, 2007, p. 12). The five Key competencies of the New Zealand Curriculum are:

- thinking
- using language, symbols, and texts
- managing self
- relating to others
- participating and contributing

(Ministry of Education, 2007, p. 12)

In the NZC there is a short introductory statement about the inter-connected and developing nature of the KCs, and each KC-domain is accompanied by a brief two-paragraph description (Ministry of Education, 2007, p. 12). While there is a lot packed into these short descriptors, Hipkins, Bolstad, Boyd and McDowell (2014) point to the need to delve below superficial surface understandings of the KCs. They note that a reading of the NZC gives an introductory and "skinny" understanding, and it is in the dynamic process of interpreting them "as close as possible to teaching and learning action" (Hipkins et al., 2014, p. 17) that a "fatter" reading of them can be developed. Hipkins et al. (2014) point out that unpacking the KCs to reveal more complex meanings also provides teachers with the knowledge to scaffold learning in finer and more nuanced ways (see K. Davis, Carr, Wright, & Peters, 2013; Ministry of Education, 2014 for discussion material and exemplars of teaching practice).

What is happening in New Zealand Schools?

Implementation of the KCs is taking longer than the original developers hoped and predicted (Hipkins & McDowell, 2013). Research by the Curriculum Implementation Exploratory Studies team (Cowie et al., 2009; Hipkins et al., 2011), made up of researchers from the Ministry of Education and the University of Waikato, showed that in early adopter schools, after an enthusiastic start, progress on incorporating the KCs into practice had slowed or plateaued (Cowie, Hipkins, Keown, & Boyd, 2011, p. 7; Hipkins, 2013, p. 222; Hipkins et al., 2011, p. 5).

One of the main points that emerges from research is the iterative nature of understanding the key competencies (Bolstad et al., 2012; Cowie et al., 2009; Hipkins et al., 2011; Hipkins & McDowell, 2013). Hipkins (2013) explains "research has shown that achieving more than a superficial understanding of the key competencies is a recursive process that takes time and sometimes requires a letting go of earlier insights as these prove to be misguided" (p. 224).

One issue researchers have pointed to is a lack of conceptual clarity about what the KCs actually are (Peterson, Farruggia, Hamilton, Brown, & Elley-Brown, 2013). Hipkins and Boyd (2011) agree. They note that in hindsight, while the NZC developer's choice to describe the KCs in everyday language has the benefit of making them more accessible to teachers and students, it has been "unhelpful if schools stopped exploring key competencies at this point and did not come back to them" (p. 76). The KCs, they say, require recursive elaboration and exploration by schools, accompanied by guidance on how to integrate them into learning areas, if the "visionary and aspirational" (p. 73) features of the front-half of the NZC are to be realised.

The structure of the NZC as a framework document was designed with the intention that schools develop their own curricula responsive to their particular communities. The complexity of this task, and the lack of nationally co-ordinated and supported iterative professional development

has led to a patchy implementation of the KCs as the "heart of the curriculum" (Hipkins & McDowell, 2013, p. 4). While it remains up to individual schools to access and support iterative conversations about KCs, it is likely that effective implementation of the KCs will remain mixed.

Changing notions of the KCs

Notions of the KCs and where they fit in education is continuing to evolve. McDowall and Hipkins—two researchers who have been intimately involved with the KCs since their inception—recently published an analysis of research papers that shows how understandings about the KCs have developed. They identify four overlapping phases where the nature of KCs, how the KCs are woven into the curriculum, and the role the KCs play in the curriculum has changed over time (p. 3).
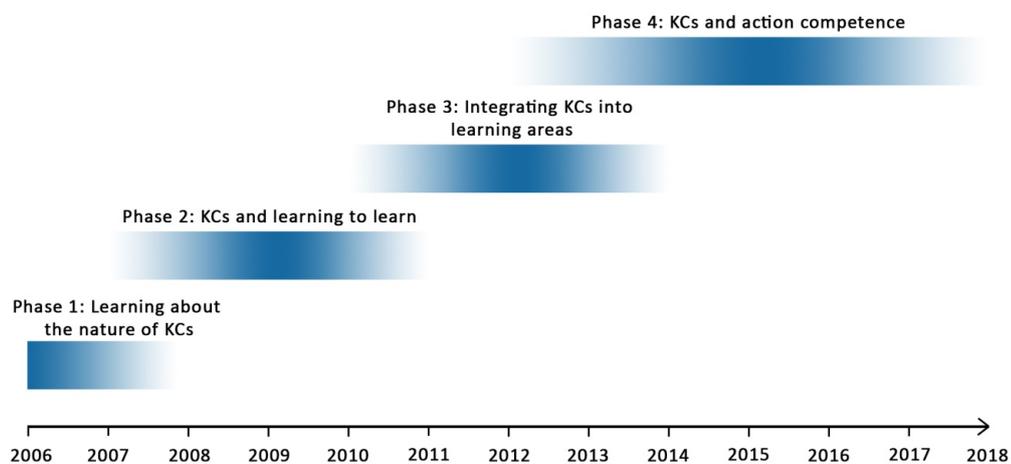
Figure 2: Four phases in the evolving understanding of Key competencies

(McDowell & Hipkins, 2018, p. 3)[3]

Briefly, these authors record that understandings of the KCs have grown from simple, individualistic conceptions, to an appreciation of the multi-faceted nature of each KC. The concept of KCs as curriculum weaving

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tools is developing now (Hipkins, 2016), as the focus moves to "wider community contexts and to imagined futures, anticipating what learners might be able to **do** with their learning" (McDowell & Hipkins, 2018, p. 4). This move is accompanied by the use of the term 'capability' to denote discipline-specific action competencies, as such 'capabilities' is more subject-specific than the KCs. Hipkins (2016) says:

> a 'capability' is demonstrated in action … Typically at least two or three (and often all) of the key competencies will be working together as this envisaged action is achieved. This means that capabilities *remix* aspects of all the key competencies and weave them together with important knowledge and skills. (p. 18 italics in original)

This re-mixing of the KCs into discipline-specific capabilities is intended to introduce a fine-grained approach to bridge the divide between the front- and back-halves of the NZC, and is doing the work that the curriculum developers were unable to achieve at the time of the publication of the NZC. The focus now, McDowall and Hipkins (2018) say, is for students to develop "action competence" as they are "supported to explore complex world problems in cross-disciplinary ways, drawing together different combinations of learning areas and key competencies" (p. 11).

This change in language signals a move to a philosophy of learning that takes account of complexity theories (B. Davis & Sumara, 2010, 2005; Hipkins, 2011; Morrison, 2008), acknowledging that "deeply interconnected systems are everywhere and at all levels of scale" (Drake, Kupers, & Hipkins, 2017, p. 30). Philosophically this move is somewhat closer to posthuman theorising than an individual, humanistic account of learning. There is however, a danger that a re-fining/de-fining of discipline-specific 'capabilities' may further striate, fix and instrumentalise the KCs, making them vulnerable to capture by particular learning areas.

Associated with the development of re-mixed and specific 'capabilities' is the notion of assessment, strategies for which are now "a more explicit and systematic focus" (McDowell & Hipkins, 2018, p. 11). Assessment of learning appears to be an unquestioned practice in education, and assessment of the KCs was certainly signalled by the original DeSeCo work (OECD, 2005).

A posthuman performatist understanding of the KCs troubles the notion of assessment. My research demonstrates that performances of the KCs emerge through the intra-action of a variety of forces and affordances in complex assemblages. As such, any effort to assess a student's performance and capacity at any given time must take this complexity into account. Additionally, the nature and purpose of assessment will itself become an entangled force in the assemblage. The question of assessment and the KCs is an ethical conundrum that requires careful and considered thought.

Learning and the KCs

The depth and richness available to students when the KCs are placed at the heart of learning is evidenced in exemplars in the Effective Pedagogy section of Te Kete Ipurangi (TKI), the practice-based resource web-site of the Ministry of Education (Ministry of Education, 2018b). Discussions of and exemplars of practice have also been produced by Hipkins et al. (2014), by Davis et al. in their work on learning stories (2013), and by Gillespie et al. (2013) in their research on Key Competencies in Physical Education. However, the focus of this work remains on ways to integrate and develop KCs with academic learning. Even in this fusion with 'back-half' learning, the socio-emotional component of the KCs is subsumed in classroom-based teaching, as though discipline specific learning is the only kind that happens in schools.

Internationally there is a wealth of research available on learning, wellbeing and social emotional capacities (for example Biggeri & Santi, 2012; Cohen, 2001; Zins & Elias, 2007). The socio-emotional component of the KCs has been documented and researched in NZ (Brudevold-

Iversen, Peterson, & Cartwright, 2013; Hamilton, Farruggia, Peterson, & Carne, 2013; Kotzé, Crocket, Burke, Graham, & Hughes, 2013; Peterson et al., 2013), but has generally remained under-explored in literature coming from the Ministry of Education or NZCER. A recent ERO resource, Wellbeing for Success (Education Review Office, 2016b), emphasises the role and responsibilities schools have in promoting student wellbeing. While the KCs were signalled in its draft version (Education Review Office, 2013), and the document itself has the NZC vision statement "**every student** is a confident, connected, actively involved, **life-long learner**" (emphasis in original) on its cover, the KCs are not mentioned in the final publication. It is as if the KCs are present implicitly, yet explicitly remain divorced from more holistic discussions of the lives and wellbeing of young people.

A move of this study is to bring the KCs out of the shadow of the back-half/learning areas of the NZC, and towards a more expansive appreciation of learning. While the work of schools is narrowed to subject-specific disciplines, other learning that happens in schools remains hidden (Wren, 1999). It is reduced to **value added** components, rather than work that is **valued and significant** as it folds into life-long learning. A recent Australian review of education (The Department of Education and Training, 2018) has acknowledged the contribution that volunteering, sports and cultural activities add to the development of young people, and argues that rather than calling them 'extra-curricular' they should be acknowledged as integral learning activities (p. 45). My study opens up yet another area of school life, that of incidental teacher⇔student moments, as a context where the learning and practice of the KCs is produced.

In the next section of this chapter I introduce the work of Māori educational researchers. The development of culturally responsive pedagogies in Aotearoa New Zealand encompasses both learning and thinking in an academic sense, and learning and thinking as emerging in and as part of the world in its becoming. In the context of education, considering the KCs alongside a Māori worldview points to a way in which KC learning may be

framed in a holistic way that is accessible and appropriate to Aotearoa New Zealand and also aligns closely to posthuman philosophies.

Whakaaro Māori and key competencies

In Te Awa High School more than 50% of the students are Māori. To appreciate how performances of the KCs may be understood and take effect in the intra-active assemblage of a mainstream school, I trace how a kaupapa Māori education discourse of being Māori and 'succeeding as Māori' might emerge as part of that assemblage. I position theory and philosophy from te ao Māori in conversation with the other theory and philosophy of this thesis, as I first briefly explore resonances between whakaaro Māori and posthumanism. I locate and trace moves for socially just education as leading the development of culturally responsive pedagogies within mainstream English-medium schools. From this wider perspective, I re-turn my focus to the KCs as I pay attention to work by researchers that places paradigms and values from te ao Māori in conversation with the KCs. I then sound a warning about, and give an example of, the pitfalls inherent in translating whakaaro Māori into English, before ending this chapter with both a challenge and a note of hope.

An exchange of hau?

> Māori think about and describe the universe – pluriverse – as a vast whakapapa, a dynamic intra-active web of kinship where humans-non-humans and all things are always already inside or as relationships. We came into being through relationships … we generate one another through ceaseless processes of self-organization and becoming. (Jones & Hoskins, 2013, pt. 20"40')

Understandings of material⇔discursive relatedness are woven in to the metaphysical world of te ao Māori, as physical entities are considered alive and kin to humans. Speaking at a conference, Jones and Hoskins (2013) describe this as "ancestors determining events, exerting forces, as being intelligible, as changing and instructing people, as [nature]

expressing itself – speaking to us – and our being able to hear … Nature is culture and vice versa" (22" 48'). As they notice the resonance with posthuman philosophies, Jones and Hoskins (2016) suggest that indigenous and "new materialist ontologies come face to face, recognizing the other, engaging maybe in an exchange of hau, breath" (p. 41).

Further exchanges between whakaaro Māori and posthumanism may be drawn from Mika's (2012) description of Being as a life-force flowing from *korekore.* He explains that *kore* means nothing, and that doubling the word to *korekore* shifts meaning to a positive plenitude that "provides the living momentum for the universe and all things within it" (p. 1081). He further explains that this activity is complementary with *mauri*, or life-force, which is needed to keep korekore 'in being'" (p.1082). Mika's description resonates with posthuman theorising, where such a universal field is described as the void (Barad, 2017a) and virtuality (Deleuze & Guattari, 1980/1987; Massumi, 2002b). It is the field from which our actual world (as one version of reality) continually incarnates or collapses down into physical form. Barad (2017a) explains how this mattering is a "dynamic play of in/determinacy" (p. 160), and that "every level of touch is itself touched by all possible others" (p. 158) as through their connection to the void all materiality—human and more-than-human—is inter-related and constantly becoming. Mika (2012) describes the idea of Being as a constant activity behind all relationships and spells out the flow and intra-active connectivity arising from Being:

> Māori believe that the self is part of the environment, and hence the self's uptake of anything—emotion, feeling, cognition, even physical attributes—is dependent on the interplay of whakapapa and the natural world. The deep links that Māori have with the natural world—seen and unseen—permeate outwards to include those who are deceased and those who are yet to come, as well as past and future impacts on the environment. (p. 1084)

A posthuman account chimes with Mika. Bennett (2010), while evading a spiritual connotation, would say that the constant activity of life-force is intrinsic to all relationships and materiality as "impersonal affect" or "material vibrancy" (p. xiii). Similarly, Barad (2010) explains that "there is no fixed dividing line between 'self' and 'other', 'past' and 'present' and 'future', 'here' and 'now', 'cause' and 'effect'" (p. 265). While 'the self' emerges as part of the environment, it also **is** the environment. " 'We' are not outside observers of the world. Nor are we simply located at particular places *in* the world; rather, we are part *of* the world in its on-going intra-activity" (Barad, 2008, p. 146 italics in original). She too speaks of the irreducible relations of responsibility and obligation brought about by our always already intra-active relationship with the world.

> Entanglements are not a name for the interconnectedness of all being as one, but rather specific material relations of on-going differentiating in the world. Entanglements are relations of obligation—being bound to the other—enfolded traces of othering. (Barad, 2010, p. 265)

As a singular Pākehā author, I am not well positioned to fully explore the connections there may be between te ao Māori and posthuman philosophies. However, I hold hope that the sharing of hau—breath—of these two ways of thinking—though arising from different whakapapa—serves to open further connections and conversations about ways of being together in the world.

Post-colonial indebtedness

Like many other schools in New Zealand, at Te Awa High School Māori are over-represented in conventional educational measures of disengagement: stand-down, suspension and (non)attendance statistics (see Quin, 2017). Māori students also have a lower rate of qualification achievement than their Pākehā peers. While the school is fulfilling a long-term goal of raising the rate of Māori achieving nationally recognised qualifications, there is still a way to go before equity is achieved. Ministry of Education statistics for the local district show that as a whole, children

and young people in this area are not engaging or achieving at school at the same rate as their contemporaries nationally. For example, in 2016 the percentage of young people leaving school with an NCEA Level 3 qualification was nationally 53.9%, and yet only 43.8% achieved this level in the local district (Ministry of Education, 2018a). It is important to remember that these traditional measures of achievement and success are constructed in the accountable terms of mainstream educational discourse. As yet, other possible ways of measuring 'success and achievement' remain under-explored.

The on-going and cumulative effects of such inequity have been termed an education debt by US researcher Ladson-Billings (2006). A more complex concept than an achievement gap, the education debt may be directly linked to the extant traumatic effects of colonisation (Pihama et al., 2014; Reid, Taylor-Moore, & Varona, 2014), land confiscation and the on-going marginalisation of Māori from economic and political power. The education debt is conceptualised as the government owing young people and their families recompense for generations of neglect (Barrett, 2018). As an enmeshed and culpable participant in the project of colonisation, schooling in Aotearoa New Zealand has an ethical responsibility to become an active participant in the project of post-colonialism. The vision of the NZC must work in tandem with political and transformational policies and practices that attend to the multiple forces that intra-act to limit the agency and well-being of Māori in the whole of society, not only in education. Keeping intra-active social and material forces in mind means that an exploration of the KCs is intimately linked with matters of equity and ethics.

Addressing the education debt requires "whole scale educational reform" (Berryman & Eley, 2017a, p. 101), and in New Zealand calls for socially just education have led to the promotion of culturally safe schools and the development of culturally responsive pedagogies (Alton-Lee, 2003; Berryman et al., 2017; Berryman & Eley, 2017a; Bishop & Glynn, 1999; A. Macfarlane et al., 2007; S. Macfarlane, 2009; Penetito, 2010).

Culturally responsive pedagogies

Māori educational researchers and their Pākehā colleagues have been instrumental in driving an iterative series of programmes to reform mainstream school practice. Grown from and in the strength of Kaupapa Māori theorising, with "its roots in critical theory" and "the politics of social change" (G. Smith et al., 2012, p. 11), the *Te Kotahitanga* project was developed to improve outcomes for Māori in mainstream secondary education (Bishop, Berryman, et al., 2014; Bishop, Berryman, Wearmouth, Peter, & Clapham, 2012; Meyer et al., 2010; Savage et al., 2011). The researchers in this project spoke with Year 9 and 10 Māori students, their parents, teachers and principals "about the causes of and solutions to on-going educational disparities between Māori students and their non-Māori peers" (Bishop, Berryman, et al., 2014, p. 6). The professional development model that they subsequently developed challenged teachers to reject deficit thinking and "assume professional responsibility for the learning of their students" (Savage et al., 2011). When *Te Kotahitanga* intervention strategies were implemented effectively, Māori students' outcomes improved, as measured by participation, engagement and retention (Bishop, Berryman, et al., 2014, p. 171; Meyer et al., 2010; Savage et al., 2011; Timperley, Wilson, Barrar, & Fung, 2007). Indeed, research indicated that **all** students, not only Māori students, performed better (Education Review Office, 2016a; Ladwig, 2012).

At the same time that *Te Kotahitanga* was being developed and implemented, the Ministry of Education consulted extensively with Māori to develop a Māori Education Strategy, first published in 1999 (Ministry of Education, 2009). This was redeveloped in 2006, and *Ka Hikitia – Managing for Success: The Māori Education Strategy 2008-2012* was released. Describing a Māori potential approach, the intent of this strategy harmonised with *Te Kotahitanga* to realise the potential of Māori to live and enjoy educational success as Māori. "This approach advocates investing in strengths, opportunities, and potential. It seeks to shift the focus from addressing problems and disparities to expanding on the successes" (Ministry of Education, 2009, p. 19).

As a *Ka Hikitia* strategy, the Ministry of Education and the (then) Teachers Council developed *Tātaiako - Cultural Competencies for Teachers of Māori Learners* (Ministry of Education, 2011). This document was intended as a resource to assist teachers and educational leaders to "… personalize learning for and with Māori learners and to ensure they enjoy education success as Maori" (p. 4). Linked to both the Graduating Teacher Standards and Registered Teacher Criteria, *Tātaiako* describes five professional competencies that promote "knowing, respecting and working with Māori learners and their whānau and iwi so their worldview, aspirations, and knowledge are an integral part of teaching and learning, and of the culture of the school or ECE service" (p. 4). These competencies are described as *Wānanga* (participating with learners and communities in robust dialogue for the benefit of Māori learners' achievement); *Whānaungatanga* (actively engaging in respectful working relationships with Māori learners, parents and whānau, hapū, iwi and the Māori community); *Manaakitanga* (showing integrity, sincerity and respect towards Māori beliefs, language and culture); *Tangata Whenuatanga* (affirming Māori learners as Māori) and *Ako* (taking responsibility for their own learning and that of Māori learners) (p. 4). As in the NZCs descriptors for the KCs, the thrust to provide simple and clear explanations of these terms has meant their location and meaning in whakaaro Māori is thinly described.

Following on from the initial *Ka Hikitia* strategy, a revised strategy *Ka Hikitia – Accelerating Success 2013-2017* (Ministry of Education, 2013) was released. This later document acknowledged that while there had been some gains in the improvement of Māori students' engagement and success at school, overall implementation of strategies had been slow and disparities in educational outcomes for Māori still remained. In response to this slow change, the revised *Ka Hikitia* aimed to "guide and measure quality education provision for Māori students and their whanau" and to "provide a framework for action by all who have a role to play in raising education system performance for Māori students—supporting 'local

solutions for local change, by local communities'" (Ministry of Education, 2013, p. 8).

Entwined with these strategies and supported by the Ministry of Education, when the Te Kotahitanga project was retired, a new initiative—*Kia Eke Panuku* (Ministry of Education, 2015)—continued this work. Berryman and Eley (2017a) give a clear account of the emergence of this programme. "The *kaupapa* (central purpose) of Kia Eke Panuku was: *Secondary schools giving life to Ka Hikitia and addressing the aspirations of Māori communities by supporting Māori students to pursue their potential*" (p. 101, italics in original). *Kia Eke Panuku* embraced and built on the knowledge gained from *Te Kotahitanga* and folded with understandings learned from four other initiatives: He Kākano, the Starpath Project for Tertiary Participation and Success, and the Secondary Literacy and Numeracy Projects. *Kia Eke Panuku* identified five levers for transformational reform in schools and mapped each of them over three "Ako: critical contexts for change" (p. 102). The five levers for change were: "transformative leadership; evidence-based inquiry; culturally responsive and relational pedagogy; educationally powerful connections with home communities; and literacy—*te reo Māori* (the language of Māori) and numeracy across the curriculum" (p. 103). Applying these levers simultaneously across all three critical contexts: "culturally and responsive relational practices …; deliberate professional acts applied with adaptive expertise …; home, school and community collaboration …" (p. 103) will result—these authors explain—in accelerated reform.

The website for *Kia Eke Panuku* will be disestablished in December 2018. Users are directed instead to *Poutama Pounamu* (The University of Waikato, 2018) which continues the work of *Kia Eke Panuku*. This project recognises that all students (Māori, Pākehā, Tauiwi) have the rights of *partnership, protection, and participation* recognized by the Treaty of Waitangi. A team of researchers works to "contribute more effectively towards ending the disparities faced by earlier generations of Māori children" (The University of Waikato, 2018) providing resources and

support to educators to engage with the five levers of change in the ako: critical contexts for change.

In its role evaluating "how well schools worked with parents and whānau to respond to students at risk of underachievement" (Education Review Office, 2015, p. 3), the Education Review Office (ERO) published a document describing educationally powerful connections between schools and families that had "helped students move onto a successful pathway from a less successful one" (Education Review Office, 2015, p. 5). This document is intended to support schools as they invite whānau into close pedagogical relationships. Aligned with this document are the Key School Evaluation Indicators (Education Review Office, 2016a), which are designed to assist schools to assess both student outcomes and professional processes. In the Key School Evaluation Indicators document, ERO makes a clear political position statement, citing persistent disparities in achievement and trajectories of decline in mathematics and science as "reflecting a long history of inequitable learning opportunities available to Māori young people" (2016a, p. 5). Referencing both *Te Kotahitanga* and *Kia Eke Panuku*, and drawing on both the NZC and *Te Matauranga o Aotearoa* (Māori-medium curriculum), the Education Review Office has developed outcome indicators that foreground equity, excellence and culturally responsive schooling. The KCs are evident as outcomes "… related to students' confidence in their identity, language and culture, and to wellbeing, participation and contribution are important in their own right as well as being essential for achievement and progress" (p. 9). Alongside the KCs, "prominence is given to concepts of manaakitanga, whanaungatanga, ako and mahi tahi because they collectively provide the foundation for an approach to education that is culturally responsive and challenges educationally limiting deficit theorizing" (2016a, p. 13). Unlike the NZC—which acknowledges the principles of the Treaty of Waitangi (Ministry of Education, 2007, p. 9) and then proceeds to develop the curriculum along Western lines of thought, omitting Māori values and concepts—The Key School Evaluation Indicators brings alive participation, protection and

partnership as culturally responsive pedagogies shape and are woven throughout the document.

It is encouraging to witness the massive work and shifts that have been made over the last twenty years. And yet, it is not enough. Hynds et al (2016) point out that "deficit messages about Māori students and their communities are embedded across mainstream school practice" (p. 552), and, I add, across society. Successful Māori students report that they "are still facing very similar challenges to students from over a decade ago when Māori students' schooling experiences were gathered in 2001" (Berryman & Eley, 2017b, p. 101). These authors identify that "we have made some advances in reducing the achievement gap" but the "daily experiences of Māori students in our schools has not improved" (p. 105). Hynds et al. (2016) cite an uneven implementation of professional development interventions, confusion about the culture of Māori, and issues with measuring Māori student achievement as major impediments to change in secondary schools. It appears that alongside the effects of colonisation, the pernicious tentacles of neo-liberalism are also at work, just as they are in the implementation of the KCs. De-regulated schooling has reduced access to on-going, strategic, and consistent professional development across the country, making take-up and involvement with culturally responsive programmes a fragile, erratic affair.

Resonances between whakaaro Māori and the KCs

Up until the ERO Key School Evaluation Indicators (2016a) document was published, there was very little literature that sought to foreground Māori principles and practices alongside the KCs, or to explore the constructs of the key competencies from a Māori worldview. One such effort was a TLRI-funded research project in which the "shift from 'essential skills' to key competencies'" in one primary school was explored (Simpson & Williams, 2012, p. 36). Among the key points to emerge from that research was the congruence of the Māori construct of *ako* with the key competencies focus of "attention on dispositions and the importance of relationships in learning" (p. 35). Simpson and Williams (2012) use the

metaphor of Te Tuangi (the clam) to illustrate *ako* as the reciprocal nature of teaching and learning:

> One side of the shell represents the resourceful learner (akonga) and the other side represents the resourceful teacher (kaiako). There is no separation between the two; both the teacher and the learner are positioned at the centre of the teaching and learning process. If there is distance between the teacher and the learner, the learning process is compromised. (p. 40)

In commenting that the "context of the school (its culture and values) influences the interpretation of the key competencies at that school" (p. 35), these authors noted that in their particular research the school's explicitly articulated values of *whānaungatanga* (relationships with others), *manaakitanga* (care for others) and *aroha* (loving kindness and concern) were reflected in the key competency of *relating to others* being recorded with greater frequency than other competencies. The authors conclude that "both the interpretation and the expression of key competencies" (p. 41) is shaped by the context of the school.

At the time the NZC was in development, a group of researchers (A. Macfarlane et al., 2008) collaborated in an attempt to bring Māori values and practices into conversation with the proposed KCs. These authors acknowledged links between the KCs and te ao Māori, pointing out that there are:

> important parallels between western/European sociocultural theorizing on human development and learning (on which the key competencies seemed to be based), and the values, beliefs and preferred practices that are embodied within an indigenous Māori cultural worldview (te ao Māori). (p. 102)

Macfarlane et al (2008) commented that a Māori worldview could "inform and critique not only these five key competencies being considered, but

could also enrich the development of the national curriculum itself" (p. 105). Sadly, there is no evidence that such an in-forming occurred, nor that the work of this commentary group was included in the NZC document itself. This omission may be seen as an example of the "colonising practices within the education system" that this group recognized as marginalizing and belittling the language, thinking and analytical skills of Māori (p. 105). Despite the fact that an earlier review of the early childhood curriculum had produced *Te Whariki* (Ministry of Education, 1996)—"one of New Zealand's first genuinely bi-cultural curriculum documents, built upon the cultural values beliefs and practices of both Māori and Pakeha" (A. Macfarlane et al., 2008, p. 108)—the NZC was developed within a Western-dominated paradigm.

In their rich and detailed article, Macfarlane et al. (2008) first identified some of the holistic constructs within te ao Māori that inform understandings of human development and education, noting that a "sense of belonging and nurturing" (p. 109) are critical features of Māori theorising. They then align these "constructs and understandings with each of the five competencies" (p.105). Of central importance is the place of the individual in relation to the collective as, surrounded by concentric circles of expanding relationship (see also Berryman & Woller, 2013), the young person is interwoven with the human and the natural world. The authors are careful to point out that while there are resonances between the practices they write about and the KCs, the values learned and lived in whakaaro Māori draw on much richer, entwined understandings and practices of being in the world.

In drawing on the work of Māori educators, the particular practices Macfarlane et al. (2008) align with the key competencies are: *tātaritanga* (thinking and making meaning/language symbols and texts), *manaakitanga* (nurturing care and respect, relating to others), *whakawhanungatanga* (establishing relationships), *rangatiratanga* and *whānaungatanga* (personal autonomy and leadership, managing self) and *whaiwahitanga* (engagement and participation) (p. 111). Tātaritanga "is

conceptualized as a combination of thinking, problem solving and commitment to supporting the group" (p. 112), which opens up space for action as an integral part of thinking and making meaning. Manaakitanga speaks to not only relating to others, but schools providing culturally safe and responsive spaces where "both the teacher and students engage in a reciprocal relationship of respect and understanding for and about one another" (p. 115). Whakawhaungatanga sits alongside manaakitanga, aligned with the key competency of relating to others. This concept brings forth the notion of whānau as a "core value" in a pedagogical framework (p. 117). The authors comment that the practice of whakawhanaungatanga is both more and deeper than relating to others, "it is about learning within and through the contexts of everyday human interaction and learning to take responsibility for supporting and caring for others" (p. 117). They note that rangatiratanga points to "taking responsibility for, and control over, one's own learning" (p. 118) and is linked with whānaungatanga alongside the Key Competency of managing self. They point out that rangatiratanga shows how dynamically an individual's wellbeing and sense of agency is connected to both individual and collective identities (p. 118). Whaiwahitanga is "about attaining a sense of place within the general scheme of things; it is about belonging" (p. 121) and aligns with the key competency of participating and contributing.

MacFarlane et al (2008) continue that the above Māori constructs do not stand alone, but arise from an interconnected worldview in which each person is "unique in terms of their *mana* (potential power and prestige), their *mauri* (life essence), and their *wairua* (spirituality)" and bound by "the force of *aroha* (loving kindness and concern)" (p. 109). They point out that while there is "evidence of commonality in meaning between particular key competencies and particular Māori constructs" (p. 123), a Māori worldview provides meaning both "wider and deeper" (p. 123) than that found "within the majority European worldview" (p. 123). It is the gap between 'the majority European worldview' and this 'wider and deeper' meaning that I explore next.

The dangers of re-signification

If we think of Deleuze and Guattari's (1980/1987) concept of the collective assemblage of enunciation, it becomes apparent that ways of thinking and speaking arise with and from the dynamic action of the socio-naturo-cultural world. Berryman and Eley's (2017b) finding that young people are still saying that many of their teachers don't "get" them is indicative of the wide gap between a dominant Western individualistic philosophy and a Māori worldview. Given that most Māori children are being educated in mainstream English-medium schools (Jahnke, 2012; Lee, 2008), it is imperative that Pākehā are working alongside Māori to bridge this gap if Māori are to succeed **as** Māori. While weaving Māori terminology into mainstream education is a step towards understanding, it comes with hidden traps.

As Māori have trans-lated Te Reo into English, the practices and values they describe have been reduced to fit dominant Pākehā understandings. According to a Butlerian performative understanding they have become re-signified. And as that re-signification is iteratively re-cited there is the danger that the (now) limited meaning of these constructs becomes fixed and ossified (Mika, 2012). In this fixing, the richness that accompanies a term is detached as not only is it separated from its wider contextual world, but complexities and nuances are lost as ways of speaking—silences, facial expressions, pacing and order—are stripped away (Stewart, 2015). Mika (2012) uses the example of *matauranga*, describing how traditional Māori ways of knowing-in-being-and-relating-in-the-world—perhaps think with Barad and onto-epistemo-ethico here—have been thinned and reduced in mainstream educational usage to *Māori knowledge*, as if that knowledge may be packaged and delivered in simple bytes untethered from its rich intertwined provenance.

I give here an example of such thinning and re-signification that was woven into my study, and it was only the kind critique of my friend and colleague Titihuia Rewita that alerted me to it. I refer to the term *ako,* which I had interpreted as confined to the teacher⇔student relationship*.*

In her doctoral thesis *Pūrākau of Māori teachers' work in secondary schools,* Lee (2008) makes clear that in traditional Māori society *ako* was more widely defined than the "limited conceptual understanding" accorded the term in (then) recent Ministry of Education literature (p. 105). She explains that traditionally, *ako* refers to an "educational framework made up of Māori values, beliefs, philosophies and practices, which create the cultural conditions for teaching and learning what it means to be Māori" (p. 105). A traditional Māori view of *ako* embraces a holistic relational understanding of teaching and learning as an everpresent, constant state, not limited to:

> … a finite set of educative practices … Ako was also determined by the physical landscape, the social context and resources of the group, and encompassed within specific whakapapa, whānau, hapū, and iwi relationships. The process of ako was largely governed by what knowledge was to be exchanged, for whose benefit the knowledge was to be transmitted, and between whom the exchange was to occur. (Lee, 2008, p. 107)

In traditional Māori society, the process of *ako* was always and everywhere. It extended beyond the formality of traditional *wānanga* to a flowing bounty of learning with and between humans and the non-human/other-than-human world.

Reclaiming the territory of *ako*

As kaupapa Māori initiatives and culturally responsive pedagogies have taken effect, their influence has extended to the inclusion of Māori terminology in official documentation. Through this next section I trace these moves as in mainstream education *ako* was separated from its complex interwoven place in all of Māori society and re-territorialised—in the terminology of Delueze and Guattari—into the more limited space of the teacher-student relationship. Recent developments (described below) have seen a further re-territorialisation taking place as Māori have begun reclaiming the wider understanding of *ako*.

In Bishop and Glynn's (1999) influential book *Culture Counts* the term *ako* was defined as meaning both to teach and to learn. This definition was re-cited and developed by Simpson and Williams (2012) as quoted above in the metaphor of Te Tuangi (the clam). The introduction of the term *ako* into mainstream education extended an appreciation of learning to a dynamic reciprocal process "where the educator is also learning from the student in a two-way process" (Ministry of Education, 2013, p. 16). Bishop and Glynn (1999, p. 79) point to how the construct of *ako* allows for a fluidity and shifting of roles in the relationship. The teacher at times becomes the learner and the learner the teacher. This understanding of the reciprocity of learning and its implication in the shifting power dynamics of the teacher-student relationship became an influential cornerstone in the theorising of culturally responsive pedagogies in Aotearoa New Zealand. However, as this description of *ako* also drew attention to the centrality of the teacher-student relationship in the process of learning, it became untethered from its wider relational⇔material context. On-going re-citations of Bishop and Glynn's definition served to catch and sediment the meaning of *ako,* confining it to the teacher-student relational-space. This focus was maintained in official education documents until 2016, when in the Key School Evaluation Indicators (Education Review Office, 2016a), the definition of *ako* stretched to include the child's whanau as an inseparable "part of learning and teaching" (p.14).

In their development of cultural competencies for teachers of Māori learners (Tātaiako), the NZ Ministry of Education began to re-territorialise *ako* by describing it as "practice in the classroom and beyond" (Ministry of Education, 2011, p. 5). The Ministry of Education also re-instates a relational obligation with the professional expectation that the teacher "takes responsibility for their own learning and that of Māori learners" (Ministry of Education, 2011, p. 14). Growing this professional territory, *Ka Hikitia* describes *ako* as more than a two-way learning and teaching process, as it carries a further professional expectation that the teachers' "practices are informed by the latest research and are both deliberate and

reflective" (Ministry of Education, 2013, p. 16). Within the formal setting of a school, professional discourses position the adult—the registered teacher—as the one in the relationship who must take responsibility for the learning that occurs.

Recently the developers of *Kia Eke Panuku*, and its successor *Poutamu Pounamu,* have continued to re-territorialise *ako* from the limited context of the teacher-student relationship. In this work, the lexicon of mainstream English medium education is widened to encompass thinking of *ako* as three different contextual domains (described above). They defined *ako* as "a Māori term found in both akonga (learner) and kaiwhaako (teacher). Ako infers [sic] the cultural responsibility and reciprocity of learners (and teachers) involved in shared, conjoint construction of new understandings, skills and knowledge" (Berryman & Eley, 2017a, p. 112). Relational responsibility comes with reciprocity, and *ako* is again breathed into overlapping contexts that hold within themselves understandings from whakaaro Māori.

As Lee's (2008) traditional explanation of *ako* extends beyond the narrow domain of an 'effective' teacher-student relationship, the process of learning is placed firmly within a complex intra-related web of humans, more-than-humans, landscape, beliefs and cultural practices. A posthuman performative understanding of learning as an emergent material⇔discursive process provides a path in which conceptions and practices of *ako* may be further spoken in ways that travel closer to their wider traditional meaning.

Wero and tūmanako – challenge and hope

Macfarlane et al.'s (2008) work demonstrated both the relevance of whakaaro Māori to the NZC and its alignment with it. However, the NZC reads as if English-medium education can only be served by Western values and knowledge-making practices. Calls for raising Māori achievement, and initiatives such as *Kia Eke Panuku* and *Poutama*

Pounamu, may be limited in their reach when the foundational curriculum document for English-medium education ignores the world-view of Māori. Just as *Te Kotahitanga* researchers found that **all** students benefited from culturally responsive pedagogy, Macfarlane et al. (2008) see Māori concepts and values not as a potential source of conflict but as "opportunities for enriching and improving the quality of education for all New Zealanders" (p. 123).

As te reo Māori is brought forward to live with English in the—official and unofficial—language of schooling, care must be taken to ensure that it remains connected to the rich relational constructs and practices that (in)form whakaaro Māori. As a Treaty obligation, the NZC must be re-thought in partnership with Māori. Hope "is the precondition for providing those languages and values that point the way to a more democratic and just world" (Giroux, 2013). I hold the hope that as new ways of thinking—such as posthuman theorising—connect with te ao Māori, bi-cultural worlds will move together in closer understanding and partnership. In doing so, the aspiration of Māori succeeding as Māori will move from the realm of virtual potentiality to an equitable flourishing in the actual world, leading to a more democratic and just world.

Chapter 4: The research process

In this chapter I tell the story of the research process, from the initial design to generate and gather material, to my analysis of that material. Entangled with the process of the research itself has been my personal process of becoming-researcher. My growing understanding and immersion in posthuman theories folded in and met with the participants, their stories, and the place and time of each conversation, in the intra-active dynamic research process.

Generating material

A linear and tidy view of the process of generating material in this study is that it occurred in two cycles. In the first cycle I had individual conversations with four Māori teachers, to explore the meanings and practice they brought to understandings of the key competencies. In the second cycle, I met with a group of teachers to engage in iterative conversations to explore stories from their everyday practice of incidental and unplanned moments. A messier and more rhizomatic telling of the process is one of five phases, and can be visualised more like this. Each phase may be imagined as a wave of the research process, as they diffract through and with each other.
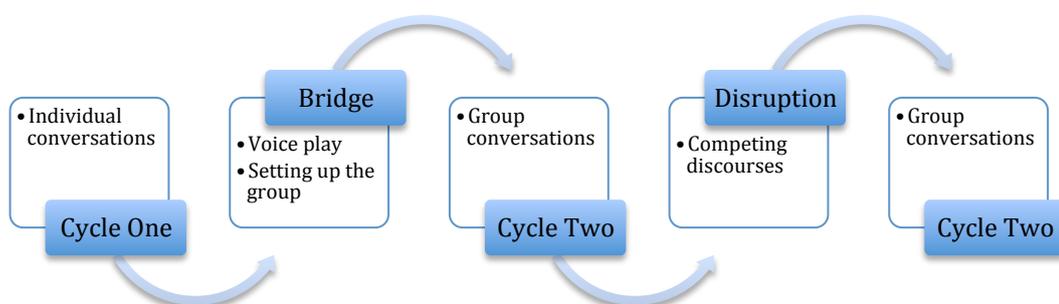
Figure 3: The research process

For the sake of narrative clarity, I will tell the linear story of Cycles One and Two first. I will then circle back to consider the diffractive effects (see Chapter 2) of these 'extra'—non-material generating—phases in the research process.

Influences and ethics in the design of this project

I sought permission from the Principal and Board of Trustees to conduct this study before I applied for, and received, ethical approval from the University of Waikato, Faculty of Education Ethics Committee (see Appendix CC). The school community was informed of the project via the school newsletter, and were invited to contact my supervisors or me if they had any questions, comments or concerns. I stated in my ethics proposal that I would not name the school when writing and speaking about the project, while at the same time I acknowledged that people who know me would be able to identify the school. I also undertook to mask the identity of both participants and students through the use of pseudonyms. Participants received an information sheet about the project (Appendix A), and gave written consent (Appendices B, F). Titihuia Rewita (Whakatohea, Tuhoe, Te Whanau-A-Apanui, Ngati Porou) agreed to act as my cultural advisor. An ethic of care for the school, students, and participating teachers guided the research design.

The design for generating and gathering of research material in this project was informed by a number of ethical considerations and methodologies. As research conducted in the context of a (mainly) bi-cultural school population, it was important to me to honour the Principles of the Treaty of Waitangi (Hudson & Russell, 2009), and attend to calls raised by Māori for decolonising research methodologies (Bishop & Glynn, 1999; L. T. Smith, 2005). Both cycles of generating materials were informed by the ethos and principles of collaboration found in participatory action research (Brydon-Miller & Maguire, 2009), in narrative inquiry (Connelly & Clandinin, 1990; Polkinghorne, 1995, 2010; Walker, 2007; Xu

& Connelly, 2010) and in appreciative enquiry (Cooperrider & Srivastva, 1987; Ludema & Fry, 2007).

As a counsellor practising narrative therapy (Monk, Winslade, Crocket, & Epston, 1997; White, 2007), my conversational approaches with participants individually or in groups were also informed by the technologies and philosophical underpinnings of this way of therapy, with its focus on respectful collaborative relationship practices.

With one of the intentions of this research being to think with Māori values and practices in relation to the key competencies, I was mindful of the ethical call to be aware of and mitigate the dangers of imposing dominant Pākehā knowledge and understandings on Māori (A. Crocket, 2010; L. T. Smith, 2005). I drew on Bishop and Glynn's (1999) work describing approaches that address power relations in research with Māori. These authors argued for research inquiry that is qualitative rather than quantitative (p. 104) and informed by the reflexivity and self-critique of post-structural approaches (p. 58). To reduce the effects of researcher imposition and to create "opportunities for the voice of the research participant to be heard" (p. 104), Bishop and Glynn (1999) noted that sequential, semi-structured "interviews as conversations" maximised "reciprocity through negotiation and construction of meaning" (p. 110). This collaborative type of conversation "offers the opportunity to develop a reciprocal, dialogic relationship based on mutual trust, openness and engagement" (p. 109).

As a Pākehā researcher and thus an "heir of the colonisers" (Haraway, 2016, p. 62) I was mindful that I needed to be alert to and guard against colonising practices that invoke the appropriation of Māori knowledge/ideas (Hudson & Russell, 2009; G. Smith et al., 2012). I was aware that in speaking with Māori participants and asking them to share their cultural knowledge, I needed to honour the *taonga tuku iho* (treasures of the ancestors) (Bishop & Glynn, 1999, p. 63) and cultural intellectual property rights of Māori. I took note of Jones' (2012) call for educational

researchers to develop personal qualities of "a tolerance for uncertainty, and an understanding of power" (p. 100) in order to listen with the intention of learning **from** research participants (Fine, 1994; Jones & Jenkins, 2008).

As a way of attending to power dynamics, I followed Glynn's description of taking an "unknowing position" (in Barnes, 2013, p. 21). Glynn commented that "being a careful listener—while unsettling, is one way of manoeuvring through power issues in research relationships with Māori as Pākehā" (p. 21). The practice of taking a curious, not-knowing position is one also advocated in my preferred counselling therapy (Anderson & Goolishan, 1992; Monk et al., 1997) and so was for me a familiar approach.

A further relational positioning I adopted in both the individual and group conversations was that informed by appreciative inquiry (Cooperrider & Srivastva, 1987; Ludema & Fry, 2007). An appreciative stance focuses on valuing the "life-giving", "life generating potentials" of a storied situation (Zandee & Cooperrider, 2007, p. 192). The purpose of taking an appreciative, not-knowing stance in this research was to create a relational/conversational space with participants where the generative possibilities of engaging in mutual inquiry might open up new "repertoires for thought and action" (Zandee & Cooperrider, 2007, p. 192) for both the participants and me.

These ethical practices contributed to the building of trust in the research relationships. The presence of trust enabled individual participants to speak of closely held values as well as experiences of vulnerability. In the collaborative group, developing a culture of trust enabled difficult moments with students to be spoken, and also served to help us negotiate our own mixed agendas. Trust enabled 'good' conversations to occur:

> Good conversations are like a fast-flowing river; they carry us forward in our thinking. They also welcome pauses to allow people time to think, explore their own understandings, inquire further and

> change their minds if they want to. (Hancock, Epston, & McKenzie, 2006, p. 232)

My responsibility in the individual and group conversations was to facilitate space for 'good' conversations, so that rich research materials emerged.

Stories of practice as research material

With a nod in the direction of Narrative Inquiry (Clandinin & Connelly, 1991; Clandinin et al., 2006; Xu & Connelly, 2010) I chose to gather stories of practice as research material. I was called by the power of stories as a means of connecting with the experience of others and finding out about the world. Haraway (2016) notes that "We relate, know, think, world, and tell stories through and with other stories, worlds, knowledges, thinkings, yearnings" (p. 97) and that " … we need stories (and theories) that are just big enough to gather up the complexities and keep the edges open and greedy for surprising new and old connections" (p. 101). I reasoned that stories of incidental relational moments with students arising in everyday teaching practice would be rich material to explore the complexities of KC performance.

In particular I called on my professional education and practice in narrative therapy. In this modality, informed by social constructionism and drawing on post-structural philosophy, people are understood to construct meanings about themselves and their lives "on the basis of their lived experiences in the world" (McKenzie & Monk, 1997, p. 85). Thus the stories we create become in themselves performative acts. McKenzie and Monk (1997) explain "In their feelings and behaviours, people are viewed as performing the meanings developed in the storying process" (p. 85).

As a relational⇔materialist, agential realist, post-post-structuralist, posthuman performative account, an important piece of this research includes paying attention not only to the "openings" decanted from materials generated in the research, but also to the construction of those

materials. As performative entanglements, the individual and group conversations that provided the material I drew on were themselves mutable, fluid, transitory, single performances of being as "… 'part' of the world makes itself differentially intelligible to another 'part' of the world…" (Barad, 2008, p. 135).

In the process of each conversation, multiple trajectories were possible (Davies & Davies, 2007), as what was said, what wasn't said, what couldn't be said, entangled with what each participant-researcher knew of the other(s) present, the kaupapa of the research, the 'interview schedule', the structure of the meeting, the time and place of the conversation, the physical level of comfort each experienced, ventilation in the room, outside noises, furniture, technology, weather, hunger, interruptions, past histories, future hopes, the emotions that arose in each encounter and a multitude of other material⇔discursive factors present in the on-going pressing busy-ness of the day. As moments of performance, the experience of the conversation itself became an actant (Bennett, 2010) in the conversation, folding in to its continuing production.

Every conversation "word[s] the world" (Richardson quoted in Gough & Gough, 2017, p. 1116) into existence in a particular way. Each "utterance itself is an act" (Davies & Davies, 2007, p. 1149) constituting both the selves of the speaker/listener(s), the conversation as it unfolded, and the story that was being told. What was happening in each of these research conversations far exceeded what was captured in the resultant text of 'research materials'.

Thus, the materials that were generated in these conversations must be read as a kind of fiction, "something constructed" but nonetheless "real" (Foucault quoted in Davies & Davies, 2007, p. 1147). Davies and Davies (2007) suggest that spoken utterances, as performative and constitutive acts, may be treated as archival material by researchers. The talk and text produced through conversation and storying may be studied to understand how "the very categories inside of which we and our research subjects

accomplish ourselves as natural, normal human beings (if indeed we do) are constituted and made real, and with what effects" (Davies & Davies, 2007, p. 1144).

Cycle one: Individual conversations

Who

In the first cycle of material generation and as a decolonising research practice, I chose to first speak with Māori teachers, deliberately placing local Māori knowledge and practice at the forefront of the research. I reasoned that by hearing the voices of Māori first, subsequent research material would be placed in relationship to this 'first knowledge/material'. I consulted with my cultural advisor (staff member and fellow school counsellor Titihuia Rewita) and invited four Māori teachers who were fluent in Te Reo to take part in the research. Of the four participants, two were female, two male.

I approached the teachers privately to explain the research and invite them to join the project. Ethically I experienced a tension in selecting participants in this way. It may have been difficult for potential participants to refuse, either through politeness or their care for me (manaakitanga) because of our collegial relationship. While I worked to keep the option of refusal alive, all the people I approached agreed to take part.

What

I spoke with each participant twice, with a range from six weeks to four months between the first and second conversations. The conversations took between 30 minutes (for a second interview) and an hour and 20 minutes (also a second interview that was interrupted and recommenced later in the day). In speaking with participants twice I was following a recursive agenda (Bishop & Glynn, 1999) that offered the participants an opportunity to refine their responses, and myself time to think with the material of the first conversation and pick up threads to explore further.

Following a semi-structured schedule (see Appendix C), in the first conversation I explored participants' understandings of the key competencies, any particular cultural knowledge they had that spoke to or enriched these understandings, and what they might have noticed in their practice about KC development in the informal milieu of school life. I made available a copy of pages 12 and 13 of the NZ Curriculum (Ministry of Education, 2007) where each KC is briefly outlined. I audio-recorded each conversation.

I transcribed each conversation myself, and returned it to the participant with an accompanying acknowledgement note with comments I would appreciate exploring further in the second conversation (see example Appendix D). I also invited participants to check, amend or remove any text they did not wish to be included as research material. To allow the participants time to read the transcript and for it to remain relatively fresh in their memory, I returned the transcript to the participants two weeks prior to the second conversation.

The second conversation focused on each participant's thinking about the KCs since the first conversation. These too I transcribed myself, and returned a copy to each participant to check and amend.

Where: inserting thinking about material entanglements in the production of research materials

Not only was I, as researcher, entangled in the production of research material, so too were the place and timing of where we met. The room, its position in the school and proximity to other spaces, the arrangement of furniture, the meanings associated with the room, the time taken from a busy day, all entangled with and contributed to the invitation and constraint of what could or could not be said. I organised to meet each participant in a small office used as the 'spare' counselling room. Situated next to both the counsellor's office and the room used for restorative conversations, this suite of rooms occupies a peculiarly private and yet central space in

the school. It is close to but tucked away from the main thoroughfare of student movement. An external door and window open to a small courtyard shared with the counsellor's office, while the internal door provides easy access to the hall, the staff room and the nurse's office. The room itself was furnished with a small desk, a two-seater couch and two low chairs. The walls were covered in bright scenic photos and posters advocating student health and wellbeing.

We met at times when it suited the participants. This was usually during a non-teaching period, although on one occasion the participant ate their lunch while we talked, and on another we met after school hours. On three occasions staff wanting to talk with either the participant or me interrupted our conversation. Being physically present in the school meant that I too was often caught up in unfolding work with students and/or staff, so the demands of school-life both physically inserted themselves and rumbled as an ever-present background refrain in each conversation.

Cycle two: The group conversations

Forming a collaborative group

My second strategy in generating research materials was through a cycle of iterative collaborative inquiry group meetings (Kamberelis & Dimitriadis, 2005). This plan followed work by the Curriculum Implementation Exploratory Studies (CIES) research team in which they noted that teachers collaborating together has been found to be an effective means of exploring and unfolding the KCs (Hipkins et al., 2011). I envisaged this collaborative inquiry to trouble habitual or unexamined ways of thinking and practice (Harnett, 2012; Hipkins & McDowell, 2013), and support the construction of new knowledge through the nourishment of 'good' conversation (Hancock et al., 2006) by the "mutual telling and retelling of stories by people who are living those stories" (Bishop & Glynn, 1999, p. 127). My facilitation of the groups was also informed by my experience and training in group work (Corey & Corey, 1997).

I recruited participants from an already established staff professional learning group that was engaged with the Teaching as Inquiry (TAI) process (see Ministry of Education, 2007, p. 35). The group meetings followed a semi-structured format and were informed by stances of compassionate witnessing (Weingarten, 2003b) and appreciative inquiry (Ludema & Fry, 2007). The content of each group meeting informed the next in an organic process.

The collaborative group met in the Careers room from 3.15-4.30 on eight occasions through the year. Set up as a learning hub, the Careers room is well designed for medium and small group conversations. Light and airy, tables were arranged together into large groups that enabled all participants to sit and face each other. As the year progressed and we moved to small group work, there was space for separate conversations.

A Folding and re-folding learning process

Each iterative meeting was shaped by the learning and practice of the one before. In each meeting teachers were invited to tell a story of an unplanned teacher-student encounter. I, and later the participants, asked curious, knowledge-generating questions informed by narrative therapy (White, 2007) to investigate further into the actions and values that were being materialised in these moments.

I audio-recorded each meeting and transcribed the recordings myself. Following each meeting I made the transcript available in hard copy to participants to read. To invite the participants to engage further with the research materials, I also drew a brief analysis made from a diffractive cut in the story, which I returned to participants either before or during the next meeting (see Appendices L-Q, T-V, Y). While asking participants to take care of the returned material, in the interests of confidentiality and non-identifiability I changed the names of participants and students.
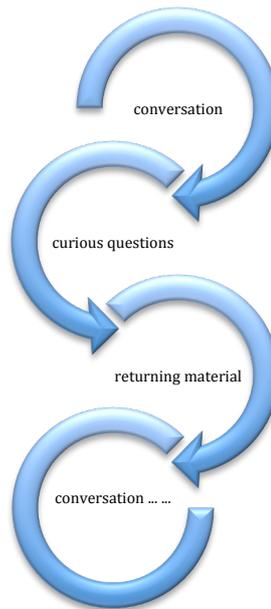
Figure 4: Enfolded collaborative group conversations

The Flow of meetings:

February – Introduction and invitation

At the first yearly meeting of the professional learning group, the Deputy Principal (DP)—who led the group—introduced the research. I showed the Bridging Play video (bringing forward material from the individual interviews and described later in this chapter) and explained the purpose and process of the research.

I took to the meeting copies of the KCs from the NZC (Ministry of Education, 2007, pp. 12–13), the participant information sheet, and collaborative group consent forms (see Appendices A, F). I gave the KCs and information sheets to all group members as invitations to be part of the project. As prospective participants, I invited group members to take time to think about their involvement before signing consent. We also discussed different options for creating a research group. To reduce any sense of obligation, I invited teachers to speak with the DP about these options rather than with me. One person chose not to be part of the research and another withdrew following the second meeting. In all twelve teachers agreed to participate in the research. Ten of the participants were

female, two male. Two were Māori and ten Pākehā. Between nine and eleven participants attended each meeting, although the composition of the group varied, as not all participants were able to be present at every meeting. Participants brought a wide range of teaching experience to the group, from beginning teachers to those with many years of practice.

Confidentiality was discussed at this introductory meeting (see Appendix G). A school expectation on members of every professional learning group was that they disseminate learning through their regular fortnightly department meeting. People wondered how they might explain this research to their Department and still continue to uphold their responsibility to champion the Teaching as Inquiry (TAI) process. We decided that detailed stories and names of students or staff would not be reported outside of the research group, but generalised learning and understanding might be shared. The DP responded that material supporting the development of TAI would still be available to group members.

As this section tells the story of generating and gathering stories, I've added a 'speech bubble' to each of the session descriptions to show how I have named each story and where the analysis of that story may be found in the following chapters.

March – Session 1

I prepared for this—and subsequent sessions— after careful conversations in supervision. As I introduced this session I explained the project again, and provided a follow-up handout which I called "Accounting for pedagogical practice" (Appendix I). I also gave each participant another handout they could use to explain the purposes and process of the research to members of their school department (Appendix J).
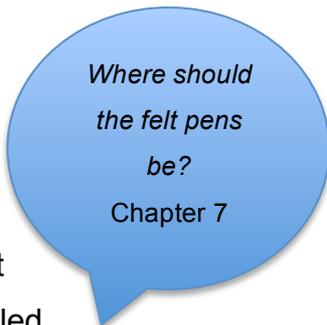
Where should the felt pens be?
Chapter 7

In a previous research project - investigating the performance of the KCs in the counselling room (K. Crocket, Kotzé, Hughes, Graham, & Burke,

2014), we had learned that merely naming a KC could act to close inquiry down. To keep this inquiry open I knew we needed to generate a rich story of practice before naming the KC. So at this first meeting I introduced the idea of moving the naming of each KC to the background. Instead, I suggested that we explore the stories of practice in fine detail, foregrounding and paying attention to learning and experience that may have otherwise gone un-noticed.

Within the structure of this and subsequent meetings, an interdisciplinary diffractive interference pattern was created when knowledge and practice from counselling met educational knowledge and practice. I used inquiry techniques from narrative therapy to explore the question: What is happening in this story? White (2007), one of the co-founders of narrative therapy "drew significantly from Jerome Bruner's (1986) explorations of the narrative metaphor … to develop further understandings of the meaning-making activities that people engage with in everyday life" (p. 75). Bruner (see also Bruner, 1996) proposed that the narratives people tell of their lives are composed of landscapes of action—the plot or sequencing of events and actions, and landscapes of consciousness—the knowledge, values, and meaning one ascribes to the actions. White (2007) later called these landscapes of action and identity. My experience using this approach in counselling gave me confidence that following similar lines of questioning would yield richly storied material for further analysis.

During the previous week, one of the participants, Rachael, had come to me saying "Have I got a key competency story for you!" She agreed to tell this story to the group in our first meeting. As a way to invite participants to engage with the story and to make connections with their own practice in a compassionate and appreciative way, I lent on another narrative therapy practice—Outsider Witnessing (White, 2007). I extracted a back and forth, telling and re-telling design from this practice, which invited all participants in the group to take an active part in the process. The structure of this group meeting thus took on two purposes. Firstly to observe and experience the kinds of (landscape of action and consciousness)

questions that invite curious inquiry, and secondly to tap in to the power of stories to connect each participant to their own teaching experiences.

In Part 1 of this first session (see Appendix H for my plan for the session), Rachael told her story while I asked questions. The remainder of the group were invited to note words, phrases or sentences that resonated with them—either in what Rachael had said or in the question I had asked. Then in Part 2, I invited them to comment on what they had noticed. Apart from the two August meetings—which I will describe below—we followed a form of this process through the life of this research group. Each session brought further refinements as participants became more familiar with this style of inquiry.

In subsequently returning material to the group (Appendix M), I drew out examples of how the group had inquired into the story, noting that in the process we had collaboratively generated new knowledge about learning that had occurred in Rachael's class.

April – Session 2

A fight in the classroom
Chapter 7
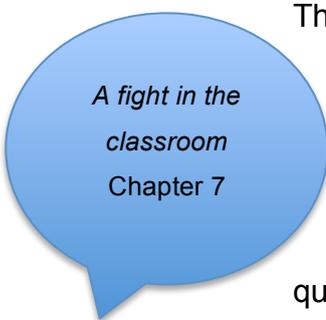
The story that was brought to this session was of a difficult teaching moment. In this meeting Ella told the story of a fight that had happened in her classroom. The participants acted as witnesses while Ella told the story and I asked curious questions. In the later re-telling, participants—now co-researchers—engaged with the story, asking curious questions while also sharing learning from their own experiences.

In later returning material to the participants (Appendices N and O) I noted that in telling the story the shock and disappointment that were still reverberating for Ella had made it difficult for her to notice performances of KC-action, both her own and her students. As a way of introducing participants to diffractive analysis, and inspired by the creative approach of performance ethnography, I re-wrote parts of the story as an imaginary vignette of two teachers having a conversation in the staffroom (Appendix

O). In this re-turning of material to the participants I placed a lens of care and compassion over the session transcript, making visible previously shadowed acts of competence.

June: Session 3

During the third group session, I asked the group how the process was working for them. Participants appreciated that they were spending time noticing aspects of their practice and the performance of the KCs that previously had gone unnoticed. In this meeting, Ed told the story of supporting a Year 13 student to create a working document to help her manage her time. Again we followed an audience witnessing process, where Ed told the story, I asked him curious questions to inquire further, then the other participants joined in the inquiry.

The penny-drop factor Chapter 7
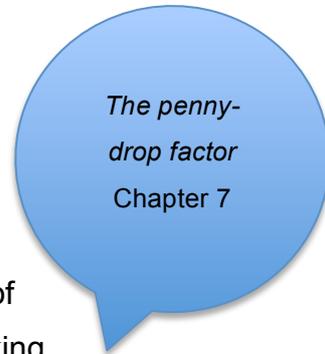
Participants had commented that they were finding it difficult to describe the work we were doing to their departments. In the re-turning of materials to participants after this round (Appendices P and Q) I wrote the material in a way that it could specifically be shared in department meetings.

Following this round of meetings, I had the sense that the group were ready to develop their inquiry practice further. That they would relish the opportunity to work in smaller groups, with more people having a chance to tell stories of practice and to engage in appreciative inquiry. I prepared a slightly different approach for the next meeting (Appendix R). However, events overtook me and this didn't happen as the Disruptive phase entered the research process (see below, p.108).

Final Sessions 6 and 7 – the beginning and end of November

When we met at the beginning of November, it had been four months since our last 'story-telling'. To re-introduce the research and to re-engage participants with the kind of questions we were using, I asked two participants to read aloud the re-turned material of "The penny-drop" story

from our June meeting. I had inserted questions into this extract that opened the story for further exploration (see Appendix V). I then invited the group to break into three smaller groups, and together explore new stories of practice by inquiring closely into the beliefs, knowledge, attitudes and values that may have been at work (Appendix W). Beliefs, knowledge, attitudes and values are part of the territory of the landscape of consciousness/identity (Bruner, 1996, p. 698), and are also acknowledged in the NZC as active forces in the emergence of KCs. "More complex than skills, the competencies draw also on knowledge, attitudes, and values in ways that lead to action" (Ministry of Education, 2007, p. 12).

I drew on White's therapeutic work of re-authoring conversations (2007) to construct a list of possible questions, using the territories of landscape of action and landscape of identity as a guide. I provided this list to participants to act as a prompt in their curious conversations (Appendix X). The questions were designed to assist participants to think beyond surface understandings of the KCs and explore the un-noticed and un-said that contributed to the actions that were taking place in the storied moments. It is telling that these guiding questions didn't include a consideration of the materiality at play in the 'moment', even though I set out to undertake research from a material⇔discursive perspective. The known and familiar practice of centreing the human and discursive in research is difficult to step aside from. Both St Pierre (2015) and Lather (2015) write of difficulties they have experienced in making the ontological turn to think with new materialist research practice. So while the human elements in the stories were "granted agency and power to act, to learn and to transform" (Lenz Taguchi, 2014, p. 80) in the participants' conversations, the material figured merely as passive elements.

In the last meeting of the year, the group divided into three smaller groups exploring one story each. In a refined witnessing process, participants in each small group were invited to notice how the story they had heard resonated with their own teaching practice (see Appendix AA). As participants had become more familiar with the process and with asking curious questions, particularly rich practice stories were generated. The three stories generated in this meeting constitute the exam trilogy.

The 'extra' phases

I now circle back to those two extra phases in the research process. While in themselves these phases didn't generate research material, they each exerted an effect, acting as diffractive grates to shape the on-going process.

Bridging the two cycles of material generation

To link the first and second cycles of material generation I wrote a voiceplay, which I named by its function as The Bridging Play (see Appendix DD). This play represented an initial analysis of material from the individual conversations. I presented the play to prospective participants as a bridge to the second stage of material generation— collaborative group work. I was enthused by the notion of performance-based ethnography (Denzin, 2006; Hamera, 2006; Madison & Hamera, 2006) as a means of both telling the unfolding story of the research and sparking interest and engagement with the project.

Performance ethnography expands the repertoire of presenting research from written text to engaging with a range of performance and arts-based forms. Presenting a performative event transgresses "sedimented meanings and normative traditions" (Conquergood quoted in Denzin, 2006, p. 327) and acts as a "shock to thought" (Massumi, 2002a), dislocating the audience from habitual means of knowledge transmission. In creative performances such as dance, art installation and drama, research is "(re)presented as evocative rather than denotative. In effect [it] seeks to displace/disrupt the dominant mono-logical, mono-vocal narrative and analytical voice …" (Bagley, 2008, p. 56). Expression diversifies as

the audience experiences the complexity of multiple voices and lived experience, inviting an embodied and visceral as well as cognitive response. Creating a performance piece as an event to bridge the two cycles of research aligned with the creative-becoming-embodied theories I was reading.

I wrote the Bridging Play as a conversation between five actors: a generic researcher, three 'participants' and myself. I constructed the play in a way that introduced current research and thinking about the KCs, drew directly on evocative comments from the individual conversation participants, and included some of my own thinking and questions about performances of the KCs. My supervisors recruited two other actors and a camera-person, and together we read and video-recorded the script. I later edited this reading into a movie format to show to prospective group participants.

The play fulfilled its function as an introduction to thinking with the KCs and as a catalyst for the collaborative group work, offering a line of flight for the professional learning group to shift into new territory as co-researchers in the field of key competencies. It 'set the scene' for on-going work and at the same time offered the possibility that this work might take a different shape and form to more familiar styles of working and speaking together.

The process of constructing, performing with others, and presenting the Bridging Play had a less visible but nonetheless significant effect on my sense of myself as an emerging researcher. I was—and still am—entranced by the possibilities of performance ethnography as a way to present research findings in an affectively powerful way. As this was a new venture for me, there is much I would do differently now. However, as an initial analysis, constructing and presenting the Bridging Play stitched the individual conversations firmly into my thoughts where they stayed to mingle and intra-act with further thinking as the group conversations unfolded. In this way, the individual conversations formed a presence in and were part of the on-going process of the collaborative group work.

The Disruption – a practical and ethical conundrum

The second 'extra' phase of the research process occurred during Sessions 4 and 5. In those sessions the group and I re-negotiated the process and purpose of the group. The research inquiry process we were engaged in was very different from the formal and structured Teaching as Inquiry method this professional development group had been following the previous year. Both stretched for time, the DP in charge of the group and I hadn't fully paid attention to possible tensions between the research process—as curious inquiry of storied moments of practice—and the formal Teaching as Inquiry process, until she raised it as a problem for her the day before our next scheduled session. For the two sessions in August, the collaborative group became the site where these two contesting forces of knowledge production—the group's history as a professional learning group and our current focus as a research group— were re-negotiated. While a disruption to my planned research methodology, these two sessions serve as a testament to the power of educational discourse and how alternative ways of thinking may prove challenging. In the first August session, the discursive force of professional development exerted a strong pull-back to the Teaching as Inquiry model (see Ministry of Education, 2007, p. 35), as the DP offered the group a structured way of folding our inquiry into key competencies into the more familiar striations of the TAI process (see Appendix S).

At the end of August we were scheduled to have another group meeting, and so used that time to negotiate as a group which direction to take. We could continue with the research process we had agreed for this year, and remain collaboratively inquiring into moments of practice, or we might return to our previous kaupapa and follow the structured Teaching as Inquiry format. A lively discussion about the purposes of the group and our on-going exploration of the KCs ensued. As usual, I recorded and transcribed this conversation, and made a précis of the discussion points available to participants (see Appendix T). I have no way of knowing now how our complex colleague/friendship relationships contributed to the group agreeing to continue with the established research process. I

suspect that for many participants this would have been an awkward situation and relational ties also acted as a powerful force. I was heartened by comments that participants made that acknowledged the learning they were enjoying in the group explorations. Ethically this was a difficult time—we needed to attend to power and commitment, as well as to the forces of professionalism in education as reified in the TAI process. In our negotiations we were called on to make use of competencies in ways we might not have expected when we started the group process.

The rippling effect of this 'disruption' speaks to the dynamic contestation of forces in assemblages and serves an example of continual territorialising and re-territorialising. Teachers work in an environment where there are strong calls to work within familiar parameters. The gaze of senior managers, students, parents and Ministry of Education officials and directives may all serve as conservative restraints. In the 'disruption', the forces of familiar and 'official' ways of conducting inquiry threatened to re-territorialise the research process. I was put in a new researcher-self position, having to advocate strongly to retain the integrity of the curiosity-driven research process.

In the final two sessions, there was a re-newed commitment by the group to the research conversations we were having. The forces in the assemblage had been stirred and a new smooth research territory emerged as the striations of Teaching as Inquiry were completely removed from this group. Teaching as Inquiry as a process continued to be supported in subject specialist department meetings and included in individual teacher's professional practice. Having acknowledged and negotiated the 'disruptive' tension, participants engaged fully in the research process. They were ready to take the lead in small groups and to play with asking curious questions. It was as if the energy of a storm had rippled out, creating space to move into new productive ways of working.

Analysis: Reading-thinking-writing

By the time it came to thinking with and writing about the research stories and conversations, I had travelled further into the realm of posthuman post-qualitative inquiry (Lenz Taguchi, 2012; Nordstrom, 2018; St. Pierre, 2017; St.Pierre, 2015; Taylor & Gannon, 2018). As ways of shaping posthuman inquiry, Taylor and Gannon (2018) write that there is broad agreement among educational researchers that:

a) the human must be decentred in favour of 'other than human' or 'more than human' within research assemblages;

b) that this decentreing requires us [researchers] to pay more attention to affective flows, forces and intensities; and

c) that the focus needs to shift beyond discrete objects or subjects of research to their co-constitution through assemblages, entanglements and relations. (p. 465)

As I moved into posthuman theoretical territory, the strategies I used to think with the research materials emerged through the entangled research process, "revealed in fragments along the way" (Jackson, 2017, p. 667). In my on-going thinking-writing, as I used different diffraction grates, I noticed the forces of the more-than-human, affect and affective flows, entangled cultures, histories and futurities. Working "at the frontiers of … knowledge" (Deleuze, 1968/1994, p. xxi) I enquired how new understandings of KC performance might be explored in the interference patterns that were produced in the flux and flow of dynamic assemblages.

Analysing the group stories

Having gathered rich research material in the form of stories and conversations, I set about carrying out a diffractive analysis. A topological diffraction called on me to think beyond the apparent actions of the moment, and notice connections, histories, times, places, and events that were operating as forces and intensities in the encounter. How might I go about inquiring into the topology of each event or encounter? How would I know where to make a diffractive agential cut?

Deleuze and Guattari (1980/1987) exhort us to "make rhizomes, not roots, never plant! … Make maps, not photos or drawings" (p. 25). They say that a rhizome doesn't have a beginning or end, it is always in the middle of things. Haraway (2016), too, points to the rhizomatic quality of stories describing them as "complexly tentacular and fibrous" (p. 95). Diving into the middle of a story is thus theoretically a good place to start. 'Thinking in the middle' also leads to thinking about what is happening in the threshold spaces between things (Mazzei, 2017, p. 675). 'The middle' is the synaptic space between tentacular and fibrous connections, the space where these relations and their on-going effects may be explored. 'The middle' is where:

> … things pick up speed. *Between* things does not designate a localizable relation going from one thing to the other and back again, but a perpendicular direction, a transversal movement that sweeps one *and* the other away, a stream without beginning or end that undermines its banks and picks up speed in the middle. (Deleuze & Guattari, 1980/1987, p. 25 italics in original)

I started my analysis of all the materials I had gathered by thinking with the stories told in the collaborative group. Following Barad's explanation of Fernade's study of the workings of power in an Indian jute mill (2007, p. 227), I created some questions that helped me begin to stitch my way in to the fabric of the materials, asking:

- What are the material⇔discursive forces at play in this story?
- How might the place, space, and time of this encounter entangle with, shape and be shaped by the forces and intensities operating in the story?
- What might be the affective and agential effects of the material in this assemblage?
- What discursive forces are evident and what might be their affective and agential effects?

- What spaces for the becoming-difference and performance of KCs might be opened (or closed) for learners and teachers through the intra-actions folding and unfolding in the storied moments?

As I read the transcripts of each story, I allowed myself to be "activated by the waves of relational intra-actions between different bodies and concepts (meanings) in an event *with* the data" (Hultman & Lenz Taguchi, 2010, p. 537 italics in original). Remembering the actual telling of the story was one wave that flowed through my reading. Other waves were the history of my relationships with the participants and the students, and my own experiences of being in the places where the stories took place. Drawing on Deleuze and Guattari, Lenz Taguchi (2012) urges researchers to engage all their bodymind faculties in "the event of thinking … the bodymind of the researcher becomes a space of transit in the encounter with data" (p. 272). As I engaged my bodymind, "I" became an everchanging diffractive grate of receiver, filter, generator, transmitter of knowledge.

From the messy complexity of each story, I made a diffractive cut in the places where "glowing data" (MacLure, 2013a) called me, producing an embodied frisson that "resonat[ed] in [my] body as well as [my] brain" (MacLure, 2013a, p. 661). As an example of the mutually formative and agentic power of the material and the discursive, some words and phrases grabbed my attention, affected my body with curls and hooks of allurement, and urged me to plunge into their entangled worlding for a time. I tuned to these vibrations in my bodymind as an indication that exploring this node of spacetimemattering in the material may be a conduit to the haptic smooth space of movement and new knowledge. Embodied affect indicated a smooth becoming open space where the possibilities and potential of becoming different are alive and are the space of new and rich knowledge-making.

The affective, sensate experiences that were evoked in my body as I immersed myself in the material, opened "rich possibilities" (Swirski, 2013,

p. 348) and lines of inquiry. At times arising as a response to what I was reading, at times remembering the people and places that were being spoken of, at times by stretching my imagination, and in one particular story by physically creating fudge, my embodied responses enriched and maximised my acts of reading-thinking-writing (see Taylor, 2016a, p. 204). Thus, cutting the material here—and there—and there again—engaging in numerous turns and cuts, enabled me to go beyond what was said in the group and to explore unsaid connections, movements and boundaries, forces and intensities and their effects at play in each moment.

The cuts and diffractions I made in these stories are not exhaustive. As Barad says, cuts are boundary-making practices, and boundaries produce exclusions. Of note, in my diffraction of the group-generated stories I have excluded considerations of gender and culture when thinking with the dynamics of each moment. The work of a generation+ of feminist scholars tells me that matters of gender must be a significant force in each encounter. However, coming to grips with gender in these moments was not the kaupapa of this research. The diffractive patterns of gendered performativity and the KCs is such an important topic it deserves a research project of its own. Likewise, the culture of actors in each story would also have been a powerful force in each encounter. Differently focused stories would have needed to be told to pay attention to the workings of culture. I do, however, attend to matterings of Māori culture in my thinking with the individual conversations.

The Individual conversations: Following the contours of a concept

In my reading, sitting quietly musing with the individual conversation transcripts I wondered how we might work together. The wealth of material was at first overwhelming. The Bridging Play had emerged as one rhizomatic form, giving voice to those "glowing moments" in the conversations that had exerted a strong force. I held on to those moments and stories, and as I continued to read with the conversations two concepts emerged to shape my inquiry. Each of these concepts came with

histories and connections, bringing with them elsewhere links with other concepts and others' work. The concepts that appeared were the hyphenated Māori⇔Pākehā⇔pedagogical space the participants described and occupied; and the Māori term ako—which was entwined in the relational learning moments described. I follow the contours of 'the hyphen' and the teacher⇔student relationship in Chapters 8 and 9 respectively.

Following the contour of a concept has been described by Mazzei (2017) as a method of inquiry. "Following a contour therefore, thought moves on its own, not according to a given trajectory, fundamentally changing the shape of the inquiry as the contour of concepts allow connection to flow and bend" (p. 676). Every concept is a rich and complex multiplicity, crowded with the virtual possibility of new configurations and new knowledge. Exploring, poking around, probing a concept means taking a twisting, random path and following the "irregular contour defined by the sum of its components, which is why, from Plato to Bergson we find the idea of a concept being a matter of articulation, of cutting and cross-cutting" (Deleuze & Guattari, 1991/1994, pp. 15–16).

I followed the conversational threads to poke and probe, cut and cross-cut, looking behind and beyond what had been said to inquire into components as intensities and forces that were present in each narrative. Diffracting this material together-apart rustled veiled histories as they mesh with influential cultural values in the mattering of day-to-day teaching practice. Also in these conversations evocative stories of teacher⇔student relational moments had arisen. I diffracted these stories to untangle the kinetic intra-actions that gave rise to specific performances of being/doing/acting in the world.

Transgressive data

In writing and thinking about the stories I paid attention to the agency of material objects and bodies as they intra-acted with discourse to become shaped by and shaping of the performances of KC-action. As I wrote about one story in particular—*Making fudge in the classroom*, Chapter 5—

I inserted a form of "transgressive data" (St.Pierre, 1997) into the text. In order to think with the materialised sensual effects of fudge-making in the class assemblage, I augmented the participants' words with my some of my own, stitching personal experience of the "thing-ness" (Bennett, 2010) of fudge-making into this account. In creating this piece of text I cut-together-apart (Barad, 2014) the stuff of my research, re-turning the material in-to the 'story' which "like all moments, is itself a diffracted condensation, a threading through of an infinity of moments-places-matterings, a superposition/entanglement, never closed, never finished" (Barad, 2014, p. 169).

Poetic form

I wrote the participants' words in one-line poetic form as a way to capture the aesthetic sense of "data that glows", and to make space for thinking beyond commonplace language (Speedy, 2005, p. 289). This representational practice draws from both narrative therapy practices of rescued speech (K. Crocket, 2010; Penwarden, 2018; Speedy, 2005) and qualitative research practices (see Galvin & Prendergast, 2016; Öhlen, 2003; Richardson, 2001). Rescued speech poetry takes only the words that participants have spoken and "represents a use of language that disrupts the relationship between words and that which is already known" (Speedy, 2005, p. 289). The one-line poetic form I have used captures the rhythm, syntax and silences of participants' speech, disturbing a "linear reading habit through zigzagging movement" (Hohti, 2016, p. 1153). Unsticking the stasis of prose, poetic form also lends itself as a way of capturing the movement of affect. By conveying the energetic tone and excitement that was apparent in the participants' voices as they talked together, a potent evocative space is opened for inquiry.

Ordering thinking-writing

Aside from the Bridging Play that acted as an initial analysis of the individual conversations, the process of thinking-writing with the material of this research was itself diffracted as I moved backwards through time. I began my writing-analysis with the last stories told, and I finished with the first cycle of individual conversations. In part this was because those later

stories were still very active in my thinking when I started writing; in part because by the last stage of the group process I was excited by the way the conversations were unfolding; and in part I was moved to action by the call of vibrant materiality 'glowing' in one particular story.

Without intent, I finished my analysis where I had begun generating material, but in a totally different place. The serendipitous outcome of undertaking my thinking-writing in this backwards order was my immersion in and developing understanding of relational⇔materialist theorising. In re-turning to the individual conversation material I was able to bring the knowledge I had gained from reading and thinking about a world of immanent materiality and relationship to meet the understandings and practices from te ao Māori that had been shared with me. Without that learning, my engagement with the individual conversation material would have been much more limited. To follow that learning process, I present the following chapters in the same turned-about order that I went about my analysis.

In the 'Openings' chapters (5-9) I have used italics to indicate participants' voices in the text, and standard font for my discussion. All participant and student names have been changed to help preserve privacy. As a further move to mask identity, in Chapters 5-7 the research group participants are named differently in each story. I begin each story with an introductory piece drawn from the research conversation.

Entangled Writing

As a piece of entangled research about an entangled world, the process of reading-generating-thinking-writing that I am a part of in this research is performative (St. Pierre, 2017). It is both shaped by and shaping of the world. Writing is a performative act, where what "I" write has an effect. Writing is a practice that interacts (intra-acts) with the world, and the "possibilities of texts and writing correspond to their ability to create new paths and produce new thoughts" (Gough & Gough, 2017, p. 1121). As such, an ethic of care requires me to pay attention to what is—or what is not—written. I am both accountable and responsible for the

wordings/worldings that are effected in the re-telling and thinking with the research material (see Barad, 2007, pp. 242-243).

In this reading-thinking-writing analysis I have taken expressions—body, beyond body, words, sense—and contained them in words. I have read and remembered the speaking of stories, allowing others' words to flow through me as I made decisions about what to draw from the text. I have then taken these words as a temporary reality, and written about where they took me—in collision, emergence with, diffracted with—reading and other conversations I have undertaken. In this sense these writings are a work of fiction, a flow, a temporary congealing rendered static through the materiality of the written word. A culmination of re-vision, re-thinking, re-views, re-writing, finished but not final—a thought bubble—a hiatus—a staging post.

The power of these stories, what the participants have said, my reading and writing of them, is not so much in what they say, rather it is in what they **do**. Where they take you/me/others. What new thoughts they might inspire. What connections they spark when:

> A spark can flash and break out of language itself, to make us see and think what was lying in the shadow around the words, things we were hardly aware existed. (Deleuze, 1990/1995, p. 141)

The power in these stories is their emergence from and their flow with the "collective assembly of enunciation" (Deleuze & Guattari, 1980/1987, p. 22), their merging with continuing process and becoming.

Therefore, do not hold the following stories as static 'truths'—instead ride with them and see where they take you.

Chapter 5: The exam trilogy - part one

This study makes visible a significant and often taken-for-granted portion of teachers' daily work, the unplanned 'stuff' of myriad intra-actions with students. In the next three chapters I present and diffract the teacher's stories of incidental moments in everyday practice that were generated in the collaborative group conversations. Compiling a concise narrative from each conversation and permeated with my shared-insider knowledge of the school, I write a short account at the beginning of every story-section. I then intersperse quotes from the participants' conversations with theory and analysis as I explore "data that glows" (MacLure, 2013a).

The three stories narrated in Chapters 5 and 6—The Exam Trilogy—were told in small groups at the end of November during the final group meeting of the year. In each story, participants spoke about very recent encounters. As such, the hue and shape of every story was influenced by the affective quality that inhabited the school at that time. Each story describes encounters in/of different spaces in the school: a classroom, an office, and the school hall during a formal exam. To give a sense of the materiality of these spaces, at the beginning of each story I 'set the scene', describing the setting in/of which the story took place.

Before moving to the trilogy of stories, in this chapter I introduce the distinctive placetimemattering of end-of-year junior exams in which these stories were located. I then tell the story "Making fudge in the classroom", conducting an in-depth topological analysis where I consider materiality, place, history, thresholds, becomings, striations and affect in the performance of the KCs in one class lesson. I follow this in Chapter 6 with two stories, both directly relating to the examinations themselves.

The practice of examinations: Discourse materialising in timespacematter

In the final weeks of the school year, while seniors were on study leave, junior students sat exams in the four core subjects: Maths, English, Science and Social Studies. Each exam was scheduled to take two hours. Year 9s sat the exams in classrooms, and Year 10s in the hall in which the furniture was arranged to replicate the same exam conditions they would face as senior students the following year. The exams took place in the first two hours of the morning. Following a thirty-minute break, classes continued as normal for the rest of the day.

The practice of examining students on their learning at set points in the year is well established in secondary schools in New Zealand. While the advent of NCEA (National Certificate of Educational Achievement) has offered alternative forms of measurement, examinations remain a core part of the teaching and learning structure of many high schools. Years of repetition have given weight to and normalised examinations as a summative assessment practice. Despite questions raised over their learning value (see Ings, 2017 part three), exams are a well-established component of schooling. As such they have become an "institutional crystallisation" (Foucault, 1976/1978, p. 93), rarely questioned within the school and accepted as an inevitable event in the school year (see also Foucault, 1975/1995, pp. 184–194).

When this set of stories took place, the timing and structure of junior exams created a distinctive shape, pressure and flow in the school day that was quite different to that experienced by both students and staff at other times. As the year drew to a close, there was a sense of moving towards completion, with the exams as the final measure of the year, both assessing and finalising the learning for each subject. With senior students on study leave, there was physically more space for the juniors around the school. They were able to inhabit areas on the field, in the library, classrooms and canteen that normally they had to share with their older

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and larger cousins. It was late spring, with its mix of cool winds and warm sun, promising summer and the freedom of the holidays. Into this transitional space an oscillation of formality and informality, freedom and constraint were at play. The intensity of preparation for, sitting of and, for the teachers, the marking of exams met with a relaxation of pressure at other times and spaces of the day. While school was set to continue for another fortnight, the completion of junior exams signalled the end of formal learning for the year.

In the immediate flux and pressure of each day, the exams brought different challenges and expectations for each student. For many of the Year 9s, sitting an exam was a novel experience and these students may have had a number of concerns about their ability to cope and perform in this new situation. And for those Year 10 students who had sat exams the previous year, their experiences then would be part of the entangled mattering that was enfolded and unfolding this year, influencing their sense of themselves and their own capabilities and measured worth as successful—or not—students.

Teachers too faced differing demands. They had to ensure the curriculum for their subject had been adequately taught and revised, and students were prepared with the knowledge of what to expect in the exam. They were required to supervise exams, patrolling up and down rows of students, ready to respond to distress or misbehaviour, then mark the completed exams promptly so results could be recorded on the student's end-of-year report. At the same time, they were still meeting individually with senior students working towards NCEA credits (and some late exams), planning on-going activities for the rest of the year, and also planning for the next year. Discourses of being 'good enough', of being measured on the efficacy of their teaching dependent in part on the results their students achieved in the exams, may well have been speaking to some teachers.

With the end-of–year examinations readily accepted as customary routine in the rituals of a school year, there rides the danger that the content of exams is privileged as the ultimate learning of the year, masking learning and capacities that students call on in the process of preparation for and sitting of an exam. Not only were the students' capacities to retain, synthesise and apply knowledge in the spacetimemattering of the exam being tested, but also their ability to plan and execute a study programme—some students have the resources to revise independently, others have more limited means. Further to any study they undertook, at the time of the exam they were also required to sit in one place and write for an extended period of time (up to two hours), to contain any impulse they may experience to make a major muscle movement, to work at an individual (rather than pair or group) level, to keep quiet, to cope with the unavailability of their electronic devices, to sit separated and yet still in close proximity to a number of peers, to avoid looking at the work of other students, and to sit without protest under the watchful gaze of powerful adults. They also needed to manage a range of emotions arising from the conditions above as well as carrying the hopes and expectations of family/whanau members and their teachers. They managed all this with varying levels of confidence depending on their own learning history and belief in their ability to pass.

As I diffract each story, each moment of practice that was told at this final research group meeting, some of the material⇔discursive forces at play within the particular and unique time-sphere of "junior exams" will be brought forward. And while on an institutional level, what was being acted out in this 'normal' practice became a "reiterated acting that is power in its stabilizing and sedimenting effects" (Barad, 2007, p. 235), the stories demonstrate instances of a "moving substrate of force relations" (Foucault, 1976/1978, p. 93) in which the local practices of the teachers and students invited the mobilisation and performance of capabilities/competencies in the service of learning, being and relating in the world.

I have chosen to place the story *Making fudge in the classroom* first in this trilogy even though in chronological time it happened last. The call of the materiality of fudge-making is strong, its "thing-power" (Bennett, 2010) a clear and recognisable force in the story. The stuff of this story, and the curious exploration participants took through it, is composed of rich evocative material to untangle and diffract. *Making fudge in the classroom* is the longest story analysis in this thesis. In it I travel with concepts such as: place pedagogy, spacetimemattering, desire, haecceity, subjectivity, affect, causality and agency. In later stories I draw on and expand this theorising as well as introducing new concepts as they apply to the material. Throughout each story's analysis, I weave considerations about the performance of KCs as operative actions materialising the values and principles of the front half of the NZC.

Making Fudge in the classroom

It's nearing the end of the school year, and the day of the first junior exams.

Following a break after sitting a two-hour morning exam, a class of 18 Year 10 students make their way to the Food Technology room for one of their last 'option' classes for the year.

Stepping in to the room, the students are introduced to their task for the day: making Russian Fudge. Their teacher Chris has written the recipe on the board, and carefully goes over the process of creation, paying attention to closely linking the tasks to previous teaching and learning.

As the lesson progresses and students work in small groups of three to produce the fudge, it becomes apparent that some groups are able to step into the task with ease, producing glossy, beautiful fudge. One group, though, becomes unstuck as a mistake is made in their measuring and their product is spoiled. Realising they have a problem, they go to Chris and ask for her help.

The telling of the story

In the design of the final research group meeting, Ruth, Chris and Frank first negotiated who had 'something to tell'. Having observed a lesson Chris taught earlier that day, Ruth invited Chris to use that as the focus for their conversation. Ruth and Frank then used the questions I had supplied (Appendix X) as a pattern to inquire with Chris into some of the forces that were operating in the lesson. In the process of their inquiry, evocative vignettes from Chris's life were drawn through and described—her-storical moments that were entangled in the becomingness of her practice that day.

Writing and thinking about this piece of research material, I first 'set the scene', describing the pedagogical space and time where the story took place. I then attend to the participant's telling and exploratory questions, interspersing the telling with direct quotes from the participants and thinking with theory around what was said. I "zoom in" (Barad, 2014; Hohti, 2016) to particular moments in the telling, and zoom out to the wider spacetimematter of the lesson, noticing the weaving, folding and enfolding of affect, discourse and materiality in this instance of emergent becoming-in-the-world. In doing so I attempt to "map a dynamic, changing topography that is continually being re(con)figured by discursive-material intra-active practices of humans and nonhumans" (Jackson & Mazzei, 2016, p. 94 citing Barad, 2007). In making visible some of the entanglements happening in the encounter, I notice relational spaces and moments-in-time where competencies are performed.

Setting the scene - spacetimemattering in the foodtech room

The Food Technology room is in one of the older parts of the school. It is the end classroom in a small block of three, a perimeter building looking out over lawn to the road. The main student access into the room is up three steps onto a wide colonial-style verandah and through a set of double doors. Inside, there are six kitchen bays, each with a sink, oven and stove, benches, and cupboards containing cooking utensils. At the

front of the room on a raised dais is the teacher's long workbench and demonstration area, behind which is a whiteboard. Walls of windows looking towards the road and into the school allow a generous amount of natural light into the room and create a visual connection to both the school community and the wider world.

The physical configuration of space in the Food Technology room is infused with meaning as "assumptions are expressed about how teaching and learning are organised and expected to take place" (Grannäs & Frelin, 2017, p. 4). In this instance, particular social relations are produced when small groups of students are required to work together to produce a food product. At the same time, the embodied practices of creating and sharing food: the cutting, chopping, measuring, mixing, stirring, pouring, heating, eating, wiping benches, washing dishes, are facilitated by the functional design and provisioning of six small kitchen bays. An inter-active and consultative style of teaching is promoted, as the teacher is able to move easily among the material and human bodies in the space, attending to and assisting students as required. And while the material environment shapes learning and learning activity, so also the routines and structuring of time have a significant effect on the way learning is both conceived and occurs.

"Timetabling"—the organisation and structuring of classes—is a temporal framework that orders the activities of teachers and students as a taken-for-granted and necessary artefact of secondary school life. The striated (Deleuze & Guattari, 1980/1987) routine of the timetable, signalled by the regular sounding of bells, works to mark and contain learning in separated units while also co-ordinating the material flow of bodies through the space of the school. Both teachers and students become regulated subjects who must attend, be on time, construct lessons to fit a limited timeframe, and produce an expected amount of work within that timeframe. In Chris's lesson that day, her choice of what to teach was constrained by which food could be discussed, made and tidied up after in the one-hour available before the bell went to signal the end of the lesson. At this stage

of the year, well established rules—striations—governing food handling and care with equipment also brought a measure of safety to the creative process.

The spatial-temporal mix of the 'here and now' of Chris's lesson was also inhabited by the 'there and then' (see Barad, 2010) of what-had-gone-before. Entering into the classroom, the students were re-inscribing themselves as students in a long history of students-in-this-room. Well-established routines, and the familiarity of place, connected these young people not only with each other, but also with countless students before them. While the interior has been up-dated over the years, those same floorboards have received the tread of generations of students, shaped by and shaping of them: parents, grandparents, neighbours, cousins, siblings, strangers. For the students in Chris's class that day, the place of that particular Food Technology lesson was interwoven in the lives and becomings of many people.

Stepping up to the verandah after their break, and waiting for Chris to open the door, the students moved into both a material threshold-space, and also a becoming threshold-place, transitioning from students-playing-and-chatting to students-in-waiting. Crossing the threshold and moving into the classroom they become students-who-will-make-something-today. Deleuze and Guattari tell us that "the self is only a threshold, a door, a becoming between two multiplicities" (1980/1987, p. 249). In the moment-in-time when these young people—laughing, chattering, jostling, standing quietly, herd-like, waiting—moved from one physical-temporal space to another, from the playground-space to the verandah-space to the classroom-space, they also moved into other becoming-selves. In the potentiality of this dynamic movement from self to self, multiple ways of being, capacities and capabilities were immanent.

I wonder what sense of themselves the students had as they moved into the Food Tech class after the constraints, stresses and hard work of their morning exam? Were they relieved that this first exam was over? Were

they looking forward to a practical lesson where they would create something delicious? While still performing themselves as students, they were able to 'shift gear' from students-who-are-being-examined-individually to another iteration of being-students. The familiarity of the school and buildings, and the routines of the classroom provided a striated space/place (Deleuze & Guattari, 1980/1987) that allowed the students to know how to go about their work. Into this ordered space/place, Chris introduced an activity, fudge-making, that would give sensual pleasure, producing enjoyment and delight. Into and through the relational web of this assemblage currents and intensities of power and affect flowed, while the unfolding-en-folding process itself continued to influence what was happening in the encounter/assemblage.

Pedagogical relationships in the co-production of 'front-half' and 'back-half' learning

Well – I've had such an exciting day -
I've been at Hospitality![4]
We had a great time -
It was really cool.
        Ruth

So said Ruth when she sat down with Chris and Frank in the research group to think about a moment of teaching practice. The lesson was one of the class's last Food Technology lessons of the year. Conscious that it was it was the end of term and they had missed some lessons due to competing commitments in the school, Chris had chosen to teach a practical fudge-making lesson as a treat for the students.

It's so different with the seniors gone
and [with me] being unwell and doing the sports award dinner
there was a big chunk of time that was taken away from them.
So I feel like – there's still so much more to give them.

---

[4] Ruth is referring to the Food technology lesson

We haven't done everything that we're meant to have done.
So making fudge – food that they might not often get at home
or might not have tried at home -
It's a real treat.
Really treat food.
		Chris

Having a high composition of butter and sugar, in nutritional terms fudge would be considered a treat food to be eaten infrequently and sparingly. For Chris, this *"treat"* lesson was a way of compensating the students for her absences from previous lessons. The lesson speaks not only to a response to discourses of teaching, that is providing enough knowledge and learning in a subject area of the NZC, but also to an honouring of the learning relationship. Circumstances had left Chris unsatisfied with her contribution to the relationship, she hadn't given enough. So to make amends she chose to *"give"* not just knowledge, but also the materiality of a *"treat"* food. Chris brought skilful relationship practice into the classroom through thoughtful care, empathy and connection with the students.

In the small research group, as Ruth's excitement became palpable she invited Chris to talk about the lesson she (Ruth) had just observed in Chris's classroom.

You know it was a really positive lesson
and the kids were really engaged.
They wanted to make the fudge today …
They really were focused on that whole process
and how to achieve.
		Chris

When Frank inquired into what may have generated the students' full engagement that day, Chris's initial response fell into a well-worn path in the territory of lesson-planning practice, iterating a familiar teacher-language citational chain.

I was quite focused with knowing I had an observation -

I had those key points

all highlighted on the board

that they really had to focus on

to get a successful product.

We just went over those

and then they had to look at their recipe as well.

They had to pull out that prior knowledge

before they started the task.

So I think that enabled them

to have that confidence to get on and produce –

you know – produce a product.

They all worked together in good groups as well

They seemed to have quite nice relationships.

    Chris

The careful structure of Chris' lesson plan may be understood as a Deleuzian striation (Deleuze & Guattari, 1980/1987), bringing order to the process of learning and making the product. In terms of the NZC, Chris first paid attention to the structure of lesson planning and the 'back-half' knowledge-making that is associated with her subject area. She acknowledged the steps she had taken as enabling the students to have the "*confidence to get on and produce a product",* attributing the enactment of confidence to the lesson structure. Even in that phrase, the 'back-half' of the curriculum remained dominant as "*confidence"* was referred to as in the service "*produc[ing] a product"*. It is only after she had iterated the steps she went through to introduce the lesson, and almost as an afterthought, that Chris mentioned the quality of the students' relationships with each other as perhaps an influence on their high engagement in the task. This small example is an illustration of how the dominant discursive voice of the 'back-half'/learning areas of the NZC may eclipse an initial noticing of the performance of KC-actions (that is: focussing, confidently working, working well together). As this story

unfolds, and I bring the 'front-half' out of the shadows, lesson structure is shown to be but one of many strong threads in the complex intra-activity that produced not only fudge, but also a joyful movement of affect and thickening of relational connectedness.

Despite her early remarks on lesson structure, Chris's comments also point to the high value she places on the tenor of her relationships with students. Chris advocated an ethos of acceptance that fosters openness to meet the students or *"connect"* with them as learners with unique and particular needs.

I think when you're able to connect
with the small teams that were working
and on an individual basis as well …
And once they're able to understand
themselves in that classroom -
anything is possible.
Because it's OK to be them
at all different levels -
you know – whether they struggle with
literacy and understanding a recipe -
like Rawiri –
He's always keen
"Miss, Miss – how much needs to go in here?"
He's always able to approach me
even if he doesn't understand what's in the recipe.
        Chris

In making the effort to connect to the students being *"themselves"* and working at their own capacities Chris performed a relational practice that invited Rawiri to participate in his learning. In so doing, she performed the values of respect, integrity, and acceptance of diversity that the NZC encourages teachers to model (Ministry of Education, 2007, p. 10). She

integrated the 'front-half' of the curriculum seamlessly into her practice in a way that opened space for the student to engage with the 'back-half'.

As I continue to explore the storied account of Chris's lesson that day, in the discussion that follows I diffract the classroom assemblage to consider how the dynamics of space, time, matter and affect intra-acted with and rubbed against the borderlines of multiple entities (fudge, students, classroom, teacher, observer, research participants, myself) to shape differentiating performances of KC-actions.

Desire, haecceity and subjectivity

Ruth remarked:

As an observer -
as a person who was there
to write down and look at exactly what was going on -
it was so exciting
because all of those students, Chris,
came from a totally different perspective.
You had that lovely wee group of –
say Katie, Amaia and Venus
who had this glossy beautiful fudge -
obviously well practised.
And then – the boys just behind them -
you had to say to them quite blatantly
"Oh – have any of you ever ever experienced making fudge before?"
And you were doing a complicated chemical task
with a group who came from all over the place
And Sam and I said
"We both want to teach cooking!"
        Ruth

Ruth's comment brings to life some of the complexity of the movements and flows of intensity that were unfolding in the classroom assemblage. While invited into the room to observe the lesson in progress, Ruth

became a part of and was affected by the connections and relationships, the creative emergent becoming fabric of the moment. Threads of glossy fudge, chemical compositions, *"lovely"* girls and inexperienced boys wove through her as she watched Chris and the students go about their work. The composition of that moment affected Ruth in such a way that she wanted more. Later in the conversation, Ruth re-iterated the pleasure she experienced as an observer in the class.

It was such a positive connection
with what was going on -
and the students' willingness to share that.
It was so cool.
Just that moment in teaching that you think
"I wish every day was like this."
     Ruth

Ruth's comments evoke Deleuze and Guattari's concept of the assemblage as a desiring machine (1980/1987, 1977/2009), where desire acts as a productive force. In the assemblage or desiring machine, intensities, flows, forces, materialities, and discourses, come together to produce something new. In the assemblage of the classroom that day, the multiplicity of intensities and forces flowed, combined and coalesced, as the students, their teachers, the room, the equipment, the fudge in all its component parts, produced not only the product of fudge, but also a smooth (Deleuze & Guattari, 1980/1987) relational space.

The particular composition of this fudge-making-observing-classroom assemblage, its spacetimemattering, movement and rest, of material elements and intensity of affects gave rise to an experience for Ruth that she described as a positive connection with *"what was going on"*. Such a sense may be described as a haecceity, a capturing of the sense of a particular moment in which the continuity of ourselves with human and more-than-human others is experienced. Ruth hints at a moment-in-time where her awareness expanded outward to connect to the assemblage of

which she was a part in such a way that her individual subjectivity was blurred.

By affecting and being affected, haecceities take us places. And it was as part of this assemblage, in the haecceity of a moment that Ruth was transported on a joyful line of flight to connect with her valuing of and passion for teaching. "A haecceity has neither beginning nor end, origin nor destination; it is always in the middle. It is not made of points only of lines. It is a rhizome" (Deleuze & Guattari, 1980/1987, p. 263). Ruth experienced pleasure and joy in the singular drop of connection in the moment, and at the same time was moved to join with her professional self in wishing that "*every day was like this*".

Reflecting later in the research conversation, Ruth continued to re-territorialise, to thicken her knowledge of her professional self and connect to the values that bring joy to her teaching.

And I think that's what resonated most for me
that it's the positivity
it's uplifting
If I say one thing about what is in the story
It's that uplifting –
supporting [me] to think
"Oh – well I feel like that lots of times in my room
and I really enjoy being with young people."
        Ruth

For Ruth, the 'now' of reflecting on the research conversation, connected her with past times in her own classroom as she re-membered the "*lots of times*" when she felt enjoyment in being with young people. This resonance brought enjoyment forward from the shadows of professional practice, making the possibility for further rich enjoyment more closely available. What effect might that pleasure have on the learning relationship, flowing between and through the teacher⇔student

connection as an open creative capacity to relate to others and to the possibilities of their own becoming?

It is in moments of connection, such as those brought to awareness in the experience of an haecceity, in the movement and flux of the continual forming and re-forming of relations and assemblages, that space is opened for the performance of KCs. "The emphasis here is not so much on 'the terms or elements' that 'make-up' the multiplicity/assemblage, but rather on the relations, the 'in-betweens'" (Coleman & Ringrose, 2013, p. 9). Those interstitial, relational in-between spaces, are where potentiality and capacity reside. This is an important point. 'Relationship' is not empty space. The hyphen of connection does not denote a vacuum, nihilism, nothing. Rather it is packed full of potentialities. What emerges in each moment of becoming is a bifurcation of possibilities as the virtual takes form in the actual (Massumi, 2002b).

Affective tone

This relational in-betweenness is especially interesting. What is at play in the enablement and constraint of particular ways of becoming? Central to my theorising on performances of KC-actions is the concept of affect, and the influential part affect plays in what emerges.

No the kids were great today
there was a good energy
I found I noticed the energy this morning
it was like they had to
recognise for themselves
what they had to do for exams …
and the energy walking from one class to the next
the kids seemed focused and faster
    Chris

Even before her lesson, Chris noticed a particular affective tone in the school. In Massumi's terms she 'side-perceived' an affective vitality (2002b, p. 36) that had escaped encapsulation in single private

experiences. Rather, affect had flowed through the context of the school, affecting each of those who became entangled with it. The purposeful flow of energy created an 'up-beat' feel where the kids became focused and walked faster. In the expression of this energy I imagine purposeful strides, concentration, a relishing of the experience, perhaps sweat, slightly raised heartbeats, subdued conversation, and a psychological priming and readiness for the exam to come.

Calmness and her-storicity

As I continue to diffract the entangled assemblage of the fudge-making classroom, I follow the genealogy of affect as an influential current that Ruth observed. Ruth had made particular note of Chris's calm demeanour in the classroom and inquired further.

And you know from our observation …
what is it that allows you to be so calm
moving around one, two, three, four, five, six –
say six different groups?
All at different stages,
All doing different things.
What is it about you
that lets that happen so naturally?
You're quiet and calm and peaceful and everything -
nothing is forced.
So what do you think about that?
    Ruth

The affective force-field (Barad, 2007, p. 452) that was operating in the lesson was not limited to the temporality of that moment. Each body's reaction to the affective perceptual cues (both discursive and material) flowing through the assemblage was also "determined by its already-acquired patterns of response" (Massumi, 2005, p. 32). And so, entwined into the assemblage were personal histories, re-membered in minds and bodies, sedimented into habitual ways of responding, and becoming lived tendencies and dispositions. Murphie notes:

> … the on-going transitions leave a lot of traces in our brains, our nervous systems, bodies in general, and in our relations, all of which fold into each other. This suggests a complex kind of (largely bodily or somatic) memory, within but also across individuals. Any particular emotion draws on little bits of this. (Murphie, 2010, para. 30)

As she inquired into Chris's disposition towards calmness, Ruth drew forth knowledge about influential experiences that have shaped Chris's patterns of being in the world. Chris gave as an example her time working in kitchens in London as a chef.

You know I've worked in so many
pressure-cooker situations
with people from all walks of life
and you've got to learn how to work with people.
When I arrived in London it was
a huge wake-up call to being part of –
you know - a big part of the world that
was just a melting pot of different people.
You had to meet the pace and
you had to meet that level of intensity –
you had to work in a male dominated environment
that was hot – furious – sweaty –
shared changing rooms with men and boys
that you'll ultimately be working with
for the next sixteen hours in a day.
    Chris

In the intra-active space of Chris's classroom that day, the past was very much present, exerting forces that shaped both the material creation of fudge and the materiality of embodied existence. As Barad says, "There is no absolute boundary between here-now and there-then … … 'Now' is not

an infinitesimal slice but an infinitely rich condensed node in a changing field diffracted across spacetime in its on-going iterative repatterning" (2014, pp. 168–169). Chris's experiences in fast-paced, intense, hot, sweaty, male-dominated London kitchens had fostered a preferred way of conducting herself in her work-place, shaping the relational style she valued and brought to her teaching. Her body too had learned to move and respond in a way that *"met the pace"*. Considering the quality of calmness, I imagine poise, equanimity, a methodical even-tempered capacity that makes space for concentration and a measured response. And so, a preferred way of being-in-the-world forged in the heat of London kitchens became an active constituent in the assemblage of the classroom, the kitchens themselves intimately drawn through time and space and woven in to the quiet, methodical affective tone in the room through the composure Chris embodied.

Later, when asked by Frank in the research conversation, what is important to her in her work, Chris said:

That's quite an interesting question
because what's important to me in my work is
that you always try and create an energy in a working space
that can run as smoothly as possible.
    Chris

Once again Chris acknowledged the power of affect—the *"energy in a working space"*—as a potent force in the kitchen working assemblage, noting affects' influence on productivity. At the same time, she included herself as a conscious actor entailed in the creation of that smooth working energy. She was not an immobile recipient, done to by the force of affect, but also an active creative agent in its constitution. Led by her thinking about the value of a smooth working space, Chris again brought forward influential shaping experiences from her past, talking about how she took part in the sport of marching from age six.

It was very structured
and it was a lot to do with memory
and movement to music –
and so you had to remember –
you know two - two and a half minute sequences
and be in time with the rest of the team.
And then within work you were always taught
that from the beginning of the day
you're always working for the end outcome
and for success
and that you need to be organised and prepared.
      Chris

The continual interplay of structure and smoothness—striated and smooth space—are part of the complex movement and flux of competing forces and tensions alive within an assemblage. In finding ways to live in the world, as Chris has done, Deleuze and Guattari urge:

> Lodge yourself on a stratum, experiment with the opportunities it offers, find an advantageous place on it, find potential movements of deterritorialization, possible lines of flight, experience them, produce flow conjunctions here and there, try out continuums of intensities segment by segment, have a small plot of new land at all times. (1980/1987, p. 161)

Lodged in Chris's childhood experiences of structure, routine, synchronisation and collaboration in the sport of marching, and then nurtured and matured as a way to cope in the *"pressure-cooker"* of London kitchens, the quality of calmness as a dispositional tendency was readily available to Chris as a competent way to perform herself in the teaching world. "The body carries tendencies reviving the past and already striving towards a future. In its commotion are capacities re-activating, being primed to play out, in a heightening or diminishing of their collective power of existence" (Massumi, 2015, p. 54). As affect is entwined with memories

housed in the bodymind, repeated experiences enhance the development of dispositions and tendencies. Not all tendencies are played out in every moment, as the dynamic relationship of past, present and future unfold, but they remain present (even if unfelt) in their possibility. Shaviro quotes Whitehead as saying "the past is a nexus of actualities … it is still actual, still a force in the present, because it is reproduced as a 'datum', physically prehended by each new actual occasion" (2010, p. 118).

The calmness Chris performed in the classroom acted as a contour in shaping the becomings of others in the assemblage (Murphie, 2010). Drawn through from Chris's past and activated in the present, calmness circulated in a complex dance of attunement and reproduction within and between the students and teacher. A gentle force, calmness was none-the-less intensely powerful in its effects. Flowing with other actants in the assemblage, the movement of calmness (as non-reactivity, as smooth movement, as a relaxed and open energy) was physically perceived by the students. As their bodies resonated and responded (even in micro-movements) to this force or energy, the affect of calmness was reproduced, giving rise to a moment(s) where bodily responses were steady and harmonious relationships flourished.

Entwined with other intensities and forces, the sensuality of delicious fudge-making enfolded into the lesson in an "affective physicality [of] human-nonhuman encounters and relations" (Hird, 2009, p. 329-330). In this next segment I stir materiality into my examination of the classroom assemblage. I consider how this intra-active, knotted complexity ravelled and unravelled in the unmaking-remaking, creating-dissolving, transformation from separate ingredients (themselves assemblages) to fudge, as part of the dynamic becoming of this assemblage.

Vital materiality and the pleasure zone

You said
"It just smells so nice in here"
You become immune to that as a tech

Just to those smells
    Chris

It did!
It was like a pleasure-zone!
Some places you go it's pretty sterile
and you can feel that sterility
and if I'm feeling it the kids are thinking it –
but it was that warmth
and that – oomph
and everybody was so positive
    Ruth

Ruth identified the smells and warmth of fudge-making as contributing to the affective qualities she noticed in the classroom. The sensual materiality of fudge-making and its intra-activity with other bodies and things was not only a modulator of affect, but the affect produced in the intra-action moderated the responses and actions taken. In recognising that affect "orients, stimulates, and incites bodies toward specific actions" (Matus, 2017, p. 239), how might a rich, warm, pleasurable encounter such as making fudge open students to learning? In this instance, the productive warmth of the fudge-making lesson engaged the students in such a way that it shaped the next move in the story.

"And when I said
 "Would anybody like to take a recipe home?"
There were a number of takers today"
    Chris

In the desire to continue practising what they had learned in that lesson, these students took up a line of flight, extending their learning into the different territory of home life. In the onto-epistemological terms of the NZC, by practising and integrating their new learning into their daily lives,

they were performing themselves as "confident, connected life-long learners."

In a relational⇔materialist (Hultman & Lenz Taguchi, 2010) ontology, however, there is more to consider here than the effect of human sensual pleasure (powerful though it is). As Barad (2007) says:

> Discursive practices and material phenomena do not stand in a relationship of externality to each other; rather, *the material and the discursive are mutually implicated in the dynamics of intra-activity.* The relationship between the material and the discursive is one of mutual entailment. (p. 152 italics in original)

In an assemblage of mutually co-constitutive beings, each is implicated in the other's becomings (fudge, human, classroom). Becoming-fudge is implicated in becoming-students is implicated in becoming-teachers in a continually enfolding process. Materiality (fudge, senses, bodies, particles), discourses, histories, affect, are all co-constitutive and co-implicated in the mutual emerging becomings of the classroom assemblage.

Thinking with Hultman and Lenz Taguchi (2010), I now "put to work concepts that open up possibilities to understand the child as *emergent in a relational field*; a space in which *non*-human forces are equally at play and work as constitutive factors in children's learnings and becomings" (p. 527 italics in original)*.* As the students mixed ingredients to make the fudge, intra-action with the ingredients and the fudge-making re-constituted the students in their emerging becomingness. The fudge became a part of 'who they were' and 'how they performed themselves in that moment'. This may seem very weird—how can the fudge be making the students as much as they were making it? How can something as simple as creating an uncomplicated treat food be implicated in the composition of human be-ing?

To answer these questions I followed the call of Hultman and Lenz Taguchi (2010; Lenz Taguchi, 2012) to use all my bodily faculties, my 'bodymind', to install myself into the affective-physicality of fudge-making. To re-create the aesthetic experience of the 'pleasure-zone', at home, in the midst of analysis, I made my own fudge, recording my sensations and responses. Now I lodge small pieces of transgressive data (see Mazzei, 2007; St. Pierre, 1997)—generated by my own experience—into this story. I do not do this on a whim. In inserting myself as researcher into the body of this text, I explore the "perceptions and bodily sensations … [as] a *flow of intensities through* bodily organs" (Hultman & Lenz Taguchi, 2010, p. 537 italics in original) in order to try "to say something about the intertwined relationship and mutual transformations [taking place] in this flow of encounters" (Hultman & Lenz Taguchi, 2010, p. 537).

Chris's traditional recipe from the iconic Edmonds Cookbook (Goodman Fielder NZL & Johnston, 2016, p. 220) required the students to measure, pour, heat, stir, watch closely, assess, beat, mark and cut to create a well-known sweet treat known as Russian Fudge (below).

Russian Fudge

3 cups of sugar
1/2 cup of milk
1/2 cup sweetened condensed milk
125 g butter
1/8 teaspoon of salt
1 T golden syrup
2 tsp vanilla essence

Put sugar and milk into a saucepan. Heat gently, stirring constantly until sugar dissolves. Add condensed milk, butter, salt and golden syrup. Stir until butter has melted. Bring to the boil and continue boiling to the soft ball stage, stirring occasionally to prevent burning. Remove from heat. Cool

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slightly. Beat until thick. Pour into a buttered tin. Mark into squares. Cut when cold.

When I made my own fudge, I generated a sensual embodied experience of delicious smells, widening nostrils, anticipatory saliva, colours, patterns, craving, rich sweet satisfaction. My imagination then acted as a conduit, transporting me into the classroom and connecting my bodily responses to those the students may have experienced in their fudge-making.

> *Creamy smooth viscosity*
> *Patterning fluid*
> *Shiny surface reflecting*
> *Pouring pouring folding thickly*
> *Nose close*
> *Long breaths drawing in to catch a scent*
> *(my fudge-making)*

As I created my fudge, my body was intimately involved and moved in response to the synaesthesia produced. Vision-touch combined to 'see' the texture, to revel in and enjoy the folding patterns produced when my arms lifted, hands tilted to pour the mixture into the tin. The sweet smell called my nose to draw closer, bending my body nearer to breathe deeply. Tiny molecules rising from the mixture entered my body, travelled to my lungs and were absorbed into my blood, integrating into the assemblage that is my body. Massumi notes:

> [there is] … an intrinsic connection between movement and sensation whereby each immediately summons the other … the slightest, most literal displacement convokes a qualitative difference, because as directly as it conducts itself it becomes a feeling, and feelings have a way of folding into each other, resonating together, interfering with each other, mutually intensifying, all in unquantifiable ways apt to unfold again in action,

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often unpredictable. Qualitative difference: immediately the issue is change. Felt and unforeseen. (2002b, p. 1)

The delight engendered in the process of creating a delicious treat, mixing ingredients, smelling the rich fragrance, entailed both movement of the body (stirring, reaching for ingredients, pouring, swallowing) and the body moving in response to sensations (producing saliva, tasting, smelling).

Wipe wipe scrape push to the edges
Run my finger up the sides of the whisk
Hard metal against soft flesh
(my fudge-making)

The action of wiping and scraping activated muscles, as they stretched and contracted exerting carefully calibrated force to push and shape the mixture. A tactile sensibility (Massumi, 2002b) of skin on metal conversed as each pushed against the other. My finger pads softened and flattened while the whisk prongs bent and returned with the motion of my hand.

Taste a drop shimmering on my finger
My lips close down and my tongue folds round
Mmmm
Sweet sweet sickly sweet
Swallow it down
Sweetness on the back of the roof of my mouth
Mmmm
Mmmm
(my fudge-making)

The shimmering drop of mixture invited my body to move as saliva filled my mouth. My finger rose, my lips shaped around the finger, and my tongue enfolded the finger+drop. Absorbing the taste through small tongue buds, the drop (already mixed, already something other) was swallowed down to meet other bodily processes, acids and microbiomes (themselves

small bodies within my body,) all the time "entering into what I become" (Bennett, 2010, p. 51).

In this overlapping of bodies and sensations, the fudge and my body can be thought of as a continuity—in process—rather than as discrete units (Hultman & Lenz Taguchi, 2010). Noting that bodies are essentially inter-corporeal, susceptible to infusion and invasion by other bodies, Bennett (2011) points us to the blurred edges of bodies as they interpenetrate each other. In the making and tasting of the fudge, it becomes impossible to say exactly where the boundary between the human-fudge lies.

> Edibles disclose, in short, what Deleuze and Guattari called a certain "vagabond" quality to materiality, a propensity for continuous variation … The activity of metabolisation, whereby the outside and inside mingle and recombine, renders more plausible the idea of a vital materiality. It reveals the swarm of activity subsisting below and within formed bodies … (Bennett, 2010, p. 50)

The fudge (in its making) and I, and the fudge and the students, were each transformed as an effect "of the intra-actions that emerged between [us]" (Hultman & Lenz Taguchi, 2010, p. 530). At the same time as the students —and I—were acting, doing things to create the fudge, the fudge was acting **on and in** each of us. The relationship between the fudge-students fudge-me, entangled with the other material⇔discursive forces at play, was the fecund space where agency, where the capacity for action emerged.

In terms of the KCs, capacity or competence may be understood as possibility made available through the dance of intra-active entanglement, and performed as becoming-emergence in a continually changing relational field. I now illustrate this point, describing an example of KC performance in which the students were able to overcome a setback in their fudge production.

Sturdy becomings in the classroom

I have titled this section "sturdy becomings in the classroom" because it tells a story in which a small group of students were supported by Chris to meet a challenge in a way that nourished their capacities for living. I follow the conversational flow of the research participants as they inquire into a moment that particularly caught Ruth's attention. Both their conversation and my further analysis of it demonstrate how the performance of KC-actions is ever present in teaching practice.

Ruth had noticed that one group of students had made a mistake in their fudge-making, and in the collegial research conversation she expressed intrigue about the way this played out.

I'm thinking particularly of that upper group of boys
who sort of messed up
because they didn't measure their stuff properly
  Ruth

And it worried them
I could see Paora's face
He was like …
  Chris

Both women read the boys' reactions to the mistake, cueing in to the expressions on the boys' faces, and interpreting a layered textual response. Chris read Paora's expression as worried and attuned to the distress of the whole group—*"it worried them".* In the in-between threshold of that moment, as the intensity of the look on Paora's face passed to Chris, a number of responses would have been available to her. Curious about the approach Chris adopted and its effect on the boys, Ruth continued to unpack the moment with Chris and Frank.

… yeah – disappointed.
You addressed them in exactly the same manner

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as you addressed the most successful people.
"We just didn't get this right and
I don't want to be too loud about it but
how can we do better?"
Would you consider that they were appreciating that -
because they knew that they'd blown it?
  Ruth

Slipping past the directness of Ruth's question about what the boys may have appreciated in her teaching, Chris connected the problem to wider experiential learning arising from common occurrences in kitchens. She identified this as a typical situation in a kitchen.

That happens quite often in a kitchen
problems occur all the time
So you need to be able to come up with solutions
that can – you know – rectify what's wrong
  Chris

The values and skills Chris has developed and honed in her industry experience are evident. She recognised creative and flexible thinking skills as crucial competencies in a setting where *"problems occur all the time".* As she continued to inquire into the problem that had occurred for the boys that day, Chris' thinking turned to relationships and the important contribution of relational competency to effective work.

And that could be the dynamics of people working together
which was probably a bit of what was happening today …
three students who don't normally have a relationship
other than in the cooking room … …
trust and reliance that you know where there's work -
like weighing up the ingredients –
it's going to be right …
  Chris

In thinking about group relationships and how they play out in the classroom, Chris named important aspects of effective relational practice—trust and reliance, implying that these qualities may take time and experience to grow. In the relatively unfamiliar social space of their cooking group, the boys were faced with particular relational challenges, where developing trust and reliance is integral to the task at hand. Chris continued:

but what was good about that group
is that they recognised they put too much milk in …
they were able to come to me and say
"We've made a mistake"
> *Chris*

The quality of Chris' relationship with the boys opened space for them to take action in the face of disappointment and go to her for help. It is reasonable to deduce that they held enough trust in the teacher⇔student relationship that they could safely admit to making a mistake and hope that Chris would help them find a solution. It's possible that the promise of a delicious treat at the end of the lesson was also a prompting force in their desire to rectify the problem.

And at that stage I didn't really take it in
I thought they'd put in a little bit more milk
Not half a cup more!
So then it dawned on me
"Well it's not going to happen
You need to start again"
And there was enough time to do that
Which was great
So they could work together as a team
Until that final point
> *Chris*

Initially Chris didn't comprehend the size of the boys' mistake. However, when it became clear to her, when it *"dawned"* on her, as Chris told the story her intonation expressed she had felt a moment anxiety—*"Not half a cup more!"* In that micro-moment—the interstitial space of the threshold between all being OK and her realisation that all was not—there was a potential for 'unravelling'. A variety of reactions may have been floating about, pushing to be acted upon, perhaps fluster, tizziness, anger, dismay. However, Chris' competence built through layer upon layer of blended experience and values, and sedimented into a preferred way of being in the world, was readily available to her as a calm teaching response, *"Well it's not going to happen. You need to start again".* And because there was enough time available in the lesson, the boys had the immediate opportunity to go back and try again.

I cannot speak to the intensity of the effect of too much milk in the mixture on each of the boys in that group. Yet in following Massumi's considerations of affect and disposition, I propose that as an occasion of embodied learning, it would have folded into the composition of each of the student's becoming in the world. As Massumi (Massumi & McKim, 2009) states, our affective tendencies—our dispositions—are built over time and through small slivers of experience. And so the experience the boys had in Chris' room that day may serve to build their capacities to respond when life doesn't go smoothly.

In this vignette lodged within the story of making fudge in the classroom, elements of all the KCs are identifiable, illustrating the dynamic intra-relationship of the competencies. And while at first glance, this story may seem so ordinary that it is insignificant, it stands as an example from everyday classroom life that acts as a counter-balance to current standards-ridden, results-driven educational discourses. I argue that the small group who made a mistake, may well have learned more in that lesson than the group of students who were well practised and produced the *"glossy beautiful fudge"* with ease. The boys' experience speaks as much of the performance of the KCs in the lesson, as it does to the

mechanics of making fudge. Like all learning, it has the potential to become a trace, to be re-membered as past-future and form a line of flight—however thin, however tenuous—pointing a way for the students to recover from future misadventure with grace.

Problems in living occur all the time, not just in kitchens and our daily activities, but in every aspect of life from the small and intimate to wider communal and global existence. Life is capricious, as Hipkins et al. (2014, p. 22) remind us. And in meeting, responding to and rectifying problems—whatever their size—all the intra-related capacities of the KCs need to be called upon: recognising and perhaps moderating our own affective responses; reading and making meaning of the said and the not-said of bodies, messages, texts and sub-texts; keeping relationships with others open and working; thinking round problems and through possible solutions/actions; and continuing to engage with the problem.

A gift

There is one further fold in this story that illustrates the rippling, enfolding and re-folding resonation of intra-activity. Ruth commented with delight:

And the upshot was -
I was sitting in the library just after that -
just doing a few bits and pieces -
and Max came in and he said:
"I saved you a bit" …
Yeah – that's my boy …
He's my go-to boy
     Ruth

What might that act of saving and gifting a piece of fudge tell us of the relationship between Ruth and Max, and the clear affection that flows between them? He's her boy, her "*go-to boy*", and she is the special teacher he saved fudge for and then sought out in his own time to bring to her. The care and attention Chris took in planning and creating a special treat lesson for her students had not dissipated in the melee of a busy

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classroom. Indeed it had continued to flow through the day and in its diffractive co-mingling with other forces and intensities, was reproduced in the specificity of this one act. Discursive values of kindness, thought and care took material shape in the act of gifting a piece of fudge.

Competencies materialised

In the space/place of Chris's classroom on the day of the first junior exam, materiality and discursive forces intra-acted through, with and between each other in an active, mobile and mutually formative process. Into the dynamic, complex conglomeration, forces and intensities of the assemblage were folded: kindness, joy, calmness, delight, mistake-making, mixing, hands working, bodies moving, writing notes, cleaning up, smelling, tasting, giving, scraping, washing, disappointment, observing, noting, talking, asking, butter, glossy, thinking, London kitchens, marching, hard floors and sweet tastes. All these bodies, currents and flows were mutually entailed in the performances that emerged in that lesson assemblage. As Barad says: "All bodies, not merely "human" bodies, come to matter through the world's iterative intra-activity—its performativity" (2007, p. 152).

Chapter 6: The exam trilogy – part two

In this chapter I diffract two further stories that were told in small research groups on the first day of junior exams. Both these stories circle around challenges that students experienced with the examinations. In the first story, Jamie—a senior teacher—described a moment that had happened the previous week, when a young student came to her asking for help to understand what exams are all about. In the second story, Briar told how she had responded to two students who had 'given up' during their exam.

"I don't understand exams"

The diffractive cuts I make in this—Jamie's story—highlight the operation of power, affect, empathy, memory, and ethics in a Jamie-Sandra-open-door assemblage. Through this exploration the concepts of agency, the subject-in-relation, and teaching as a political act, become useful tools to think with. I consider how they are entwined with the performance of KC-actions.

Jamie holds a senior role in the school, and despite the demands of her position when she's in her office she usually has the door open. She told the story of a Year 9 student, Sandra, who had come to her in the week prior to junior exams. Jamie already knew that Sandra had recently been through a difficult family time and that she struggled with academic learning. On this occasion Sandra had asked Jamie for help, saying: "I don't understand exams". Jamie told how she listened carefully to Sandra and learned that Sandra didn't know what to expect in the exam, and also how she might go about answering the questions. Jamie told how she then set about putting those worries to rest. She sat with Sandra, showing her what an exam might look like and talking about strategies she could use.

In hearing Jamie's story, I joined Pat in the research group as we asked curious questions to unpack some of the values, attitudes, beliefs and knowledges that were informing Jamie's practice. As Jamie talked further, she not only told us how she helped this student prepare for the exams, she also explored and expanded her thinking about the nature of examinations as a political-democratising tool. Her strong value of keeping open opportunities for all students as an act of social justice became clearly evident during the conversation.

Setting the scene - place and spacemattering.

Jamie's office is easily accessible to students. It is a compact space, with room for a desk, bookshelves and a small round table—usually covered with books and papers. Three people can just sit around the desk. Any more and it's a squash. On the wall are personal mementos from students, photos of Jamie's family, and jokes. A tall narrow window lets in natural light while vertical blinds maintain her and her visitors' privacy. It is very seldom that her office door is shut.

Disturbing hierarchies of power through the materiality of an open office door

She came in and sat down in my office
and she said:
"I don't understand exams.
I don't know what's going to happen –
What do I do?"
        Jamie

In Jamie's story, actualised in the materiality of an open office door, is a valuing of students that contests the dominant traditional hierarchical structures of schools where other adults often mediate access to senior leaders. The research conversation emphasises Jamie's deliberate practice of making herself available to students. As a point of resistance in the dense web of power relations (Foucault, 1976/1978) operating in the

school, Jamie's open office door created a physical avenue through which Sandra could take action. Sandra was able to walk right in and sit down. The materiality of the open door created a time-in-motion-space for Sandra to inhabit, a contextual affordance that invited Sandra to go to Jamie by creating a smooth unimpeded spatial flow. Sandra was likely to have read the open door as an invitation, and noticing that Jamie didn't have anyone else with her, safely assumed that Jamie was available to speak with her. In sitting down, in re-positioning her body onto the chair, Sandra was able to let Jamie know she wanted her attention and had something to say, even before she opened her mouth.

In their reading of each other and the situation, both Sandra and Jamie were sensing and responding to the textual complexities manifesting in the assemblage. "Literacies involve reading, reading the world and self as texts that create potentialities for transforming life (how one might live). An important aspect of literacies is to produce change" (Masny, 2013, p. 75). Masny (2013) points to the reciprocal relationship between becoming and ways of reading the self and the world (p. 74) and notes that "the question is no longer what a text means but rather how it works and what it produces" (p. 76). In this story, the movement and change enacted as Sandra entered the room produced a moment of transition, a threshold space, as Jamie-immersed-in-work was disrupted. While Jamie took in the new situation of Sandra's arrival, the workings of the forces and intensities at play in the assemblage—affect, memory, values, open-door— influenced her reading and inhabited her response. Many possibilities were immanent. The assemblage re-shaped as Jamie-Sandra-talking- together. Because I know Jamie, it is easy for me to imagine her stopping whatever work she was doing, turning in her chair to face Sandra, and smiling.

Anticipation, worry, and action

She didn't have a clue ...
I suppose sometimes you just sort of
forget that an exam's quite a foreign idea.
She didn't know what –

when I asked her
she didn't know what was going to be in it.
She didn't know how to do it –
what was required.
      Jamie

What might have prompted Sandra to seek out Jamie's help? She was a Year 9 student who had never sat an exam before. She struggled academically, struggles that would have been made even more difficult by the distress of recent family events. I expect that this anticipation induced a sense of fear or anxiety, as Sandra imagined herself in a situation in which she didn't know how or what to do. Massumi (2005) refers to fear as being in a quasi-causal relationship to itself (see also Deleuze, 1969/1990). That is, anticipation of the fear in the future triggers changes in the body in the present that are fear-ful. "The affective event rolls ever more tightly round the time slip of threat, as fear becomes its own pre-effect" (Massumi, 2005, p. 41). Perhaps Sandra would have named this embodied feeling worry, and perhaps Sandra may have already had resource-ful experiences where she learned to take action to allay her worries. Or perhaps someone in Sandra's family attuned to her embodied response, and spoke with her about what she could do. Jamie speculated that perhaps Sandra's sister—Alix—had suggested the visit to Jamie.

Well – it would have been her sister
who would have said
'You go and see Miss Broome.'
But kids do turn up at the door
They know that they're allowed to.
You get all sorts.
      Jamie

Whatever the particular prompt that caused Sandra to respond to the distressing affective cues she was experiencing, she took up an agentic position in relation to them and took action. In Jamie's imaginings about

what may have given Sandra the idea to visit Jamie, prior knowledge about the expected tone of her reception in Jamie's office opened the possibility of taking that action. In the close weave of relationships in a school community, "relational ripples" (Grannäs & Frelin, 2017, p. 12), such as who it is safe to take problems to, flow through observation and direct sharing. And as knowledge about the power to act in service of their learning was shared and distributed among the student body, Sandra's capacity to act on her own behalf was directly affected. Jamie's open office door, and Sandra's action in stepping through it, coalesced into a knot of active resistance (Foucault, 1976/1978, p. 96) to a classroom power-practice in which information had not been previously available to her.

Empathy and memory

If a student comes –
and there are those ones
who are always in trouble
who come –
and just sit or whatever –
and there are others who have specific needs –
and to think that they can think –
like you know what it's like
when you're a kid and thinking
"I've just got … I can't deal with this" you know –
and to be able to think
"Right well in the morning I'll go and see those people and … [they'll help me]."

  Jamie

Evident in the configuration of Jamie's rationale for the open door is the relational practice of empathy. Her memories of being a child and wanting help to cope in a difficult situation meshed with her adult teacher knowledge and values, and activated her to create a culture of accessibility. Thus Jamie's previous lived experiences were very much present as an onto-ethico-epistemo practise (Barad, 2007) where

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discursive empathy and values materialised in the shape of the open-doorway space. Because Pat and I didn't ask the question, we don't know which particular her-stories were speaking strongly here, but their effect is clear. Clough quotes Deleuze and Guattari as saying "We write not with childhood memories but through blocs of childhood that are the becoming-child of the present …" (2008, p. 143). Memory, as a bloc-of-becoming in the present moment, is a federation of past becomings, folding into and re-forming as part of the conglomeration of the present assemblage. In this instance, the 'bloc-of-becoming-child' served as an affective connection between Jamie and the experiences of her students. It not only invited her to take an open, listening stance with young people (see Davies, 2014; Heshusius, 1995), it also gave rise to and threaded through her desire for students to take an active part in their learning and think *"Right well in the morning I'll go and see those people"*.

Jamie also mentioned those students who "*are always in trouble who come and just sit".* This comment paints a picture of her office, her space, as a place of refuge or sanctuary for a number of students in the school. Jamie had created a space/place where students who struggled—whether they had a particular pressing problem like Sandra, or a multitude of mis-fittings with others in authority—could take time-out to sit in her office to re-gather themselves, or work towards a solution to their problem. For these students the presence of an open office door afforded opportunities in which they might take action, agency, in caring for themselves and their learning and so perform themselves as actively involved learners (Ministry of Education, 2007, p. 8).

In the specificity of Jamie's story we see the agentic possibilities that were afforded by an instance of reconfiguring traditional material⇔discursive practice. As Jamie and Sandra each become subject-in-relation to the forces in the assemblage, they are also co-implicated in the emergent becoming of each other.

> Being open, and being vulnerable to being affected by the other, is how we accomplish our humanity; it is how the communities, of which we are part, create and re-create themselves. We are not separate from the encounters that make up the community but, rather, emergent *with* them. (Davies, 2014, p. 10)

In the Jamie-Sandra-open-door assemblage the hyphen acts as a textual reference indicating the subject-in-relation. As in the story of fudge-in-the-making, the hyphen of relational connection emerges as the pivot point of emergent becomings. Again the threshold and the possibilities for becoming that are contained within it. In that threshold space Sandra was able to actively seek help in the service of her learning.

In recognising Sandra's worry and attending to it, Jamie also introduced discourses of hope and capability into their conversation. In this relational moment, where Sandra had the experience of being regarded, being seen, being listened to, space was opened up for her to take a line of flight from the territory of not-knowing-student into a new territory of knowing-what-to do-student. In that competent space, Sandra was offered the possibility to cope with the anxiety she felt and add to a personal her-story of resilience in the face of challenge—a sturdy becoming. She was developing her capacity to grow into "a confident, connected, actively involved, lifelong learner" (Ministry of Education, 2007, p. 8). And in acting in alignment with her values and beliefs, Jamie demonstrated an integrity of practice which in turn folded back into the continuing formation of and accountability to her becoming-teacher self.

Teaching as a political act

As Sandra told Jamie of her worry, Jamie described the moment her body responded as the affective force of Sandra's story met the affective force of her values.

What made me cross was that
she hadn't been given an opportunity
to really understand

what was required from her

to prepare

because – why can't she do it?

Of course she can.

I was a bit shocked that she didn't know.

> *Jamie*

Jamie was *"shocked"* and *"cross"*. I asked Jamie if this response said something about the values she holds that are really important to her.

I hate the idea that we would go

"These kids don't have to sit an exam."

I think "Why not?"

"Why the hell not!"

"Why can't you sit an exam?"

"Of course you can!"

I just think – "who's going to make that decision?"

"What are you going to base it on?"

Is it the beginning of a stereotype -

particularly for Māori students?

So surely challenging that is what part of the exams is about

The socialist kind of nature of

"We're all going to do this".

How did she get to a week before the exams

without knowing what was happening?

It makes me uncomfortable …

What were the expectations of her

that she just didn't know what the exams were about

or what she would be required to do?

And that – that disturbed me.

> *Jamie*

Jamie's body acted as an instrument registering her (affected and affective) visceral, *"uncomfortable"* response. The reverberation she

experienced provided nonverbal knowledge that the values she holds dear were dissonant with other discursive forces operating in the school. She was "*disturbed*". And by asking the questions she did, Jamie exposes teaching as a political practice, whereby concrete acts (Zembylas, 2017) attract, sustain, open or constrict particular possibilities. As she resisted a patronising discourse where a group of students are allowed absence from examinations, Jamie named the discursive value of equity of opportunity as a powerful force shaping her response. In an interview with Zournazi, Massumi comments:

> And having pity for someone who occupies a category that is not socially valorized, or expressing moral outrage on their behalf, is not necessarily what is helpful in the long run, because it maintains the category and simply inverts its value sign, from negative to positive. It's a kind of piety, a moralizing approach. It's not affectively pragmatic. It doesn't challenge identity-based divisions. (2015, p. 41)

Jamie's stance is a resistance to sincere or pious attempts to protect students, which ultimately close opportunities for them. She sees exams as a technology that "*challenges*" social stereotyping, and opens space for students to access the same opportunities as their peers. In believing that students—whatever their abilities or circumstances—should have the chance to show their knowledge, Jamie also trusts that taking up that opportunity will be beneficial for them. Freire notes that "a real humanist can be identified more by his trust in the people, which engages him in their struggle, than by a thousand actions in their favour without that trust" (1970/2017, p. 34). In a posthuman engagement with Freire's words, as I side-step his use of the term 'humanist', I am interested in the flattening of power positioning that is afforded by the discursive presence of trust. In Freire's description, trust not only serves as a moderator in power relations, it also becomes a conduit of connection between people as one engages *in*—with/of—the struggle of the other. Jamie trusted that Sandra would benefit from having the same opportunities as her peers—"*Of*

course you can!" With trust alive and well as a discursive force in the Jamie-Sandra relationship, space was made available for Sandra to take action and for Jamie to connect with her in her learning struggle.

Jamie told another story to illustrate her refusal of categorisation leading to students being denied opportunities to achieve.

This wee boy in my class – Tane –
had a brain injury as a result of an accident –
Oh those exams!
He just sat and he screwed up his face
And he screwed up his eyes
and he wrote those essays.
You know – he did it!
He did the exams
and it's a great source of pride for him.
Why would you deny him that?
Even today he has an inner strength that's kind of amazing.
            Jamie

What becomes clearly apparent in Jamie's story of Tane, is the recognition and high value Jamie placed on Tane's performances of KC-actions in that exam (perseverance, grit, determination), **and** her pleasure in noticing the pride Tane felt with that achievement. In this instance, the academic learning of the back-half of the curriculum (writing the essays) was the means for Tane to achieve the front-half performance of "*screwing up his eyes"* and "*doing it*!" Tane's exam experience became part of his constitution of himself as learner, and folded in to Jamie's constitution of herself as teacher. Standing out for her was not only the courage he enacted in sitting the exam, but also the "*pride"* she recognised as contributing to his on-going sense of himself. As she told Tane's story, for a moment Jamie's own eyes screwed up and her hand moved as if she were writing, embodying and enacting that courage and tenacity for Pat and me to see in our conversation with her. Her noticing of and becoming-

with-Tane became one of the constitutive forces re-folded in to her encounter with Sandra. His-story, her-story, their-story, our-story and now your-story, folding and re-folding together in on-going intra-active becomings.

The ethics of mattering

In thinking about how she wished to be known in the school, by paying attention to how she arranged the materiality of her room, by actively recognising and moderating the affective current in the room when she greeted and spoke with Sandra, Jamie worked for an integrity of practice in alignment with her values.

Jamie positioned herself both symbolically and physically as approachable to students. A material space was created in which the edges of a traditional hierarchical structure were smoothed and softened, and an affective tone of welcoming approachability and kind regard was fostered. Meaning and mattering intra-acted in a way that provided a contextual affordance (Zembylas, 2017, p. 4) in which there was room for Sandra to take action on behalf of her learning. The Jamie-Sandra-open-door assemblage realised a practice, in which the Principles (putting students at the centre of teaching) and Values (equity, fairness, social justice, excellence and integrity) of the NZC (Ministry of Education, 2007, p. 9 and 10) were enacted.

"A nudge in the right direction"

In this final story from the Exam trilogy, I connect with theories of smooth and striated space, and subjectification, to open up new ways of thinking about the events described.

Briar, a teacher in the research group, had spent some of the morning supervising a Year 10 examination in the school hall. The desks and chairs were separated in lines and rows, keeping the students physically apart and creating space for the monitoring teachers to move around. The exam was in Briar's teaching subject, and she was in the hall for the first supervision shift, during the first hour of the two allocated for the exam. After about 45 minutes, Briar noticed that two students were sitting with their papers shut and their heads down on the desks. Briar spent time with each student, encouraging them to continue.

In the research meeting, Briar, Aaron and Sam explored this story together, and in particular the pedagogical values that called Briar to do more than invigilate, or watch over, the students. As stories do, this one connected to a similar experience Sam had had that same day, and also linked Aaron back into his classroom practice. Together these teachers noted how helping students to stay engaged with the assessment material resonated with and ignited their passion for teaching.

Setting the scene – the spacetimemattering of the hall

The hall is one of the older structures in the school. Small in comparison to newer school halls, it cannot accommodate the whole student body at one time, and so assemblies are separated into junior and senior student groups. The hall is a long rectangular space, with a stage at one end (the front of the hall), and tall windows along the northern side. At the back of the hall, glass-paned doors open on to a wide foyer area that exits to the outside and classroom blocks. From the foyer different school spaces can be accessed: the main office area, the staff room, the nurse's room, and the counselling area. The music and drama suites connect to the front stage end, one on each side. Multiple doors on three sides make streamlined and ordered entry and egress possible.

Materialising history, community and school values, an inventory of students' academic and sporting achievement hangs on wooden shields

around the walls of the hall. There recognisable local family names—many still carried by current students—abound. In pride of place, at the front of the hall, a remembrance shield honours former students who died fighting in global conflicts. The school's articulated values of respect, responsibility and achievement are made visible, as the shields hanging high on the walls oversee the activities that are enacted there. A gaze directed at a shield becomes a bi-directional link, connecting current inhabitants with the peopled past of the school. However, apart from family names inscribed on these shields, the hall contains little that connects with local Māori history and culture. Instead it evokes a school hall in the tradition of English schooling, thus prefiguring the formal examination setting and practice that is to come.

Within its traditional parameters, the hall is also a shape-shifting space as it morphs with different uses, from the formal end of year senior exams and prize-giving to the place where a group of wild and loud Year 12 boys and their teacher play table tennis on a Wednesday afternoon. Imbued with school history, it is a communal space of formal assembly, artistic performance, celebration, remembrance, discipline, congregation, and fun.

On the day of this first exam, more than 150 Year 10 students lined up in class groups, waiting to enter quietly when directed. With school bags locked in form rooms, supervising teachers ushered students to seats and desks, each separated from others in orderly lines and rows. A senior teacher then issued instructions, reminded students that they were required to keep quiet and not disturb others. He gave them permission to turn their exam papers over and begin their work. They were instructed to stay in the hall for the full two hours of the exam, with quiet activities provided for those who finished early. These students would have experienced the conditions of end-of-year exams the previous year. This morning, however, was the first time they had sat exams in the formal arrangement of the hall, a duplicate of and preparation for the organisation they would face in their first external exams the following year.

How did this material-discursive hall assemblage produce students and teachers on the morning of the exam? The configuration of the furniture in the hall materialised many discourses operating in education, particularly both traditional and neo-liberal humanist thrusts around the production and performance of knowledge as an individual affair. The traditional hierarchical power positionings of teachers and students were solidified and hardened, with teachers able to stand and move freely around the room, maintaining an overt surveillance of the students (Foucault, 1975/1995). Students were constrained to remain sitting and to keep their eyes on their own work. The teachers were required to move and observe, the students to remain still and obedient. The discursive was materialised in the arrangement of furniture, as bodies were shaped on and around it, adjusting to the freedom and constriction of movement it enabled and curtailed. Even the embodied gaze became discursively produced as who, where and what to look at was allowed or forbidden. Teachers cast a vigilant roving eye; students looked down with narrowed focus.

The overcoded, striated space (Deleuze & Guattari, 1980/1987) of the examination assemblage produced a formal clustering of power relations. However, along with the thickened hierarchical positionings of students-teachers, other forces and intensities were also in motion. Students may have carried the articulated expectations of teachers, their own hopes and ambitions as well as those of family members, the weight of future subject choices, separation from friends, beliefs about their own capabilities, and the physical challenge of sitting still for two hours. Teachers circulating in the room would have their own expectations and hopes about the exam, as well as thoughts about how they might conduct themselves in the room and about the marking the exam is now producing.

Various affective tones and currents would also swirl through the assemblage. With less tolerance of infringements than in a regular classroom day, the heightened teacher surveillance would insert a sharp edge to the affective tone in the room. Perhaps some students experienced a high degree of anxiety—possibly embodied as a dry mouth,

sweaty palms, shallow breathing and elevated heart rate. For others, confidence that they would manage the questions and the situation may have dampened any stress reaction enough to pique their thinking and problem-solving capacities.

Folded into relations of power, mattered and mattering discourses and affective currents, and contributing to the texture of the event, were such things as: the particular smell of the room—old wood and sweat, the time of the morning, the heat in the room as the sun shone through windows, the smooth running of pens, gurglings of breakfast (or empty stomachs), water bottles on tables, rustling and coughing, soft sounds as teachers moved around the room, the scrape of chairs, the assorted incursions made by many bodies collected together in a contained space. Each of these would have contributed to the various affective and perceptive disturbances and small movements rippling the otherwise carefully ordered space.

In the relational ontology of being and becoming, in this familiar yet unfamiliar space, **all** of the above features (as well as others I haven't mentioned) were co-implicated in what came into existence. Forces and intensities, matter and discourse, human and non-human, history and timespace, all entangled together, producing and co-producing each other.

Traversing striated and smooth space in the examination

Briar described to Aaron and Sam how she noticed two students who had apparently stopped working:

In the exam this morning there were two students
who were at a point of no return
where they felt that they couldn't do any more … …
She was sitting like this –
about to fall asleep
and it was only about quarter to ten.
And I was like
"That cannot happen. That cannot be."

And the same with this boy -
he was just literally lying down on his paper.
I've done a few reliefs in his class and
I knew he was capable of more.
So I just got down with them.
        Briar

Briar read the language of the student's bodies and attuned to their seeming despair and resignation. As there was still over half the allocated time left to complete the exam, Briar's felt response acted as a micro-shock (Massumi & McKim, 2009), spurring her into action—*"So I just got down with them".* In this threshold moment, the rigid striated timespace of the exam transitioned to a smooth nomadic space of new becomings for both Briar and the students. Foucault says "… it is not that the beautiful totality of the individual is amputated, repressed, altered by our social order, it is rather that the individual is carefully fabricated in it, according to a whole technique of forces and bodies" (1975/1995, p. 217). While she may not have described it in such philosophical terms, Briar reacted to the fabrication, the construction of these two young people as despairing non-achieving students within the powerful forces of the exam assemblage. As she moved alongside each student and *"got down with them",* she shifted the flow of power, redirecting it to create a space where other possibilities for the student's emergent becomings were opened.

In stepping aside from the traditional role of detached invigilator, Briar too was composed anew in-the-moment, moving from teacher-overseeing-students to teacher-getting-down-with-them. In a process of on-going subjectification and differenciation, Briar in that moment enacted a different way of being in the world, as a moving individuation in relation to forces and intensities (Deleuze, 1990/1995).

In Briar's story, we see the moment where the flow of forces through the striated place of the exam destabilised it enough that smooth other-becoming territories opened up. While the boy and the girl were defeated

and waiting the time out, other—stronger—forces were operating on Briar. In a skilful performance of mastery and submission (Butler, 1997), Briar both does and undoes the powerful shaping discourses of the examination. She submits as an agent of surveillance and at the same time she masters the process of the exam by acting on behalf of the students' participation in the world. Briar's action prises apart the too-tight constriction of the examination striations, assisting the students to manage their responses to a stressful situation and opening a line of flight where they were more able to access their thinking processes.

The dance of striated and smooth spaces is continually in motion, "… the flow of forces through striated spaces can emit smoothness that destabilises and creates lines of flight, or becomings. And in the interest of stabilisation, the flow of forces in a space can also striate a space" (Masny, 2013, p. 82). Sam inquired into some of the forces that may have been acting on Briar in that moment:

The type of questions that spring out to me
are about the values you hold
about examinations
and achieving their best
       Sam

And Briar responded:

You're absolutely right.
I was a bit like:
"That cannot happen.
That cannot be.
No-one's worth quitting!"…
We have to gently say to our kids
"Next year's the biggie.
You can't be giving up –
You have to give it your best.

Well you might want to leave
but you're not –
because I believe you haven't finished.
I believe there's knowledge in here
that can still come on to the page."…
Everybody should give everything a go.
You don't know how good you are
until you're put under pressure.
　　　　Briar

Briar's strong value of wanting success for all her students was reinforced by the quasi-causality of future exams—*"Next year's the biggie".* She held some anxiety for these students about their future performance, and at the same time a belief that they could achieve in the present moment, and that what they achieved now would assist them next time they sat an exam. The combination of the strength of this discursive belief in current capacity and the looming presence of future exams acted on Briar. She determined to bring about change in the situation and moved from the territory of teacher-surveilling-students to that of teacher-assisting-students.

In an application of the power flowing from her position as teacher, Briar's use of imperative language, *"You can't", "you have to", "you're not"* cut across the students' passivity to prod them into action. Foucault explains: "In reality power means relations, a more or less organised, hierarchical, co-ordinated cluster of relations" (1972/1980, p. 198). The power relations flowing between Briar and the boy, and Briar and the girl, were part of their constitution as 'teacher' and 'students'. The more powerful positioning of Briar opened the space for her to make such forceful utterances. Riding through this power relation and echoing Jamie's stance that all students should have the opportunity to sit exams, Briar desired the best possible outcome for these young people. She framed the pressure of the exam not as a negative, but as an opportunity to discover *"how good you are".*

In an act that softened the edges of her authority, Briar changed her physical position to come alongside the students. Perhaps she bent over, perhaps she knelt beside them, perhaps she even found a chair to sit on, however she did it, she adjusted her body to be at the same level as the students, to *"get down with them"*. In doing so she inserted herself into each student's workspace, changing the material-discursive configuration of student-desk-exam to include herself in changed relationship with each of them.

The girl had had a month off school -
she'd been crook [unwell] or something.
It took about five minutes to process
in the exam room
as quietly as we could
to show her that
actually she did have something
that she could write about
that she could finish the exam.
          Briar

Nestled into Briar's comment that the *"girl had had a month off school"* is her knowledge about the student and a hunch that illness and time away from school may have been affecting her capacity to engage with the exam. Briar asked the girl a series of questions that enabled her to access enough experience and knowledge to give her more material to work with.

And it was similar with the boy
who just said
"I give up. I'm done."
And I looked through his paper and
he'd only done a very small portion.
"To me 'done' is finished –
but you're not."
Again, I just sat down beside him

and went through it pedestrianly
left him –
and he called me back a few times
to show me -
with some pride –
what he'd done.
        Briar

Again Briar refused to accept that the student was *"done".* What would it have been like for the boy to be sitting in the hall with other students busy writing, experiencing blanks in his memory and blocks in his writing? What might have persuaded him to give up? And then, having declared his defeat by lying on his desk, what might it have been like to have a powerful teacher come and get down beside him, take his paper and look through it? I guess waves of fear, shame, failure and a sense of not being good-enough may have swept through him in that moment. As Briar joined him a powerful threshold moment was created, where any numbers of possible outcomes were loitering in the wings.

Within the rigid striations of the exam conditions, and despite the powerfully uncomfortable affective energies emanating from the boy, Briar's actions enabled the creation of smooth space where a line of flight opened for the boy. Smooth and striated space moved in combination in an affectively powerful demonstration of "how the forces at work within space continually striate it, and how in the course of its striation it develops other forces and emits new smooth spaces" (Deleuze & Guattari, 1980/1987, p. 500). Initially the forces at work in the exam bound the boy and Briar to perform in constrained ways. When these became too much for the boy and he "*gave up*", other forces were activated through Briar that gave rise to a smooth space of transition, where the boy performed again as an animated, vital, and active learner. The defeated-boy-exam-desk assemblage was de-territorialised and re-territorialised as the Briar-boy-encouragement-exam-desk assemblage, opening a trajectory of accomplishment for the boy. In calling Briar back a few times, he took up

the afforded opportunity to reconnect with her, and to drink in repeated encouragement to help him on his way. In the process his emotional experience changed from defeat to pride. In those moments he was a becoming-confident-connected-learner.

There is a post-script to this story. Briar reported that later in the day she saw the same boy in the playground:

I saw the boy again before lunch
And I said to him
"How did you go? How did you get on?"
"Oh – it was really good Miss"
and he talked about another one of the questions
that he had done
and I thought
"Yep. That's it."
And now I'll see him round school
for the next three years
And I'll know that moment.
      Briar

Not only was the becoming-student-boy enriched and resourced in the moment of the exam, so was Briar. Briar knew that she would see the boy around the school over the next three years, and that the telling of his continued participation in the exam would remain in their relational connection. She claimed it for her becoming-teacher self as a moment she would know. Encouragement re-turned.

A little bit of reassurance

Briar, Sam and Aaron spent some time considering the effect on the students of Briar's actions.

Those two scenarios
made me feel like I was making some inroad

That I was making the kids feel valued

in what was a very stressful situation.

    Briar

Briar is speaking of relational space when she talks of "*making some inroad*". In recognising the high level of stress in the situation, it was important to her that the students were aware of her care for them.

And I think with the boy

he just needed

a little bit of reassurance

that he was doing the right thing

and somebody had noticed him.

    Briar

There was something about the quality of Briar's noticing that conveyed to the boy her valuing of him as a student-learner. If Briar had taken a different approach, he may have continued to experience the much more uncomfortable being-noticed feeling inhabited by shame and fear, emotions that limited his capacity to continue with the exam. However, at that time Briar's attention to the boy was infused with determined care and kindness, belief in him and respect for his mana, qualities that invited him to engage with her and with his learning. Sam noted this affective flow and commented:

And then he would've picked up on the fact

that you gave him some of that

care and that attention

and that you believed in him too.

And then maybe if he didn't quite believe in himself

he realised that you believed

that he could do more.

    Sam

Within the relational space of the teacher⇔student moment, Briar "*held*" belief for the boy when "*he didn't quite believe in himself*," allowing belief in his ability to do the exam to enter the in-between space of the relationship as an alive and viable force. When Briar held belief for the boy, it became available for him to draw on. *"Holding belief"* was integral to fostering the boy's capacity for confidence (that is: belief in the self as capable in a given situation), as he continued to work on his own and to complete the exam after she had finished her supervision duty.

Sometimes you've got to give them
a bit of belief
a kind of nudge in the right direction
　　　Aaron

In this story, Briar, Aaron and Sam have not been talking about a learning methodology, rather they have pointed to relational practice that made learning possible. "We never know in advance how someone will learn … There is no more a method for learning than there is for finding treasures" (Deleuze, 1968/1994, p. 165). The treasures of this story emerged when the boy and the girl each picked up their pens and continued writing.

Hey, I was a teacher today!

In the research conversation, as she listened to Briar's story, Sam connected with her morning exam supervision experience.

I had a similar situation this morning
with kids giving up really early
and I'm like
"No. Look at all these questions
that aren't answered"
and just verbalising a question for them
so they understand it –
and things like that.
　　　Sam

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Both Briar's and Sam's stories indicate that in Te Awa High School there is a certain tenor to junior exams which is quite different to that which might be expected in senior exams. Senior exams (from Year 11-13) are *"the biggie"* (Briar). Externally moderated and assessed, they are administered out of the control of teachers in the school. In contrast, junior exams are written, supervised and marked by the teachers. And while ostensibly the purpose of the junior exams is to assess students' learning for the year, weaving through is another powerful discourse, that of preparing the students for the experience of sitting the *"biggie"* exam the following year. This is the territory of KC-performance, where a student's capacity to remain seated, to keep going, to persevere in the face of difficulty, to concentrate, to think in a variety of ways, to engage with unfamiliar texts, and to do all these things very quietly, is tested. The operation of KCs in examinations is where the activation of learning from the front-half of the curriculum becomes the **means** to support assessment of learning from the back-half.

In the locally-produced conditions of this school, there flows a strong current of belief that it's OK for teachers to step alongside junior students and assist them to access not only the subject knowledge they have, but also to practice the capabilities that will help them produce that knowledge. Within the boundaries of *"I'm not going to give you the answer—but I'll help unpack it for you"* (Briar), this current allowed Briar and Sam to push against the striations of rigid exam conditions and move from a disconnected overseeing position to sit alongside the students as an encouraging-teacher.

So – you know I actually felt like
"Hey – I was a teacher today."
You know – you feel like you're empowering a kid
and it makes you feel good too.
How did you feel?
    Sam

It made me feel like I was doing my job …
That's what I thought.
I thought "Wow.
This is why I do what I do."
        Briar

The use of process words such as "*verbalising"* and "*empowering*" lead us into a sense of the dynamism of subjectification. Briar and Sam are continually becoming-teachers, in an open, on-going process of differenciation. Helping the students, connecting with them on a one⇔one relational level, opening up space for young people to step into a trajectory of achievement, had a direct effect on both Briar and Sam's sense of themselves as teachers. They felt "*good"*. There was pleasure in "*doing what I do",* and through those close relational moments job satisfaction emerged.

Teaching as art - your heart sings

I felt the power of that one-on-one too.
We can have those interactions -
and that time
it just so valuable
        Sam

When you get those kids across the line
Your heart sings.
That's why I took this vocation.
That's why I have passion to do what I've done.
        Briar

The intensities operating on Briar and Sam in these becoming-teacher moments had strong effects on their sense of themselves as teachers. Unasked in the moment of group story-telling, but potentially a rich line of professional inquiry to follow, would be further questions such as: "How did your singing heart affect your sense of self as a teacher?" "How did

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that song reverberate through the rest of your day?" "What is happening that you value so much in those one-one moments?" Briar used the word vocation to describe her work as a teacher. The call of a vocation brings with it a sense of desire or passion to connect to something larger than the limits of one's own life. At the same time, it also carries a purpose for living, a reason for choosing that way of spending one's life. For Briar it seems, teaching is more than a job, it is an integral part of her sense of self and how she conducts her life.

Telling exam stories - re-inscribing the art of teaching

In the process of their work on that morning of the exams, both Briar and Sam found that in investing in the students' performance, a recursive bounty of joy and passion flowed back into their becoming-teacher selves. Ruth too spoke in her group about the delight of relational moments with young people. Jamie remembered with pleasure the pride of Tane's achievement as he *"screwed up his eyes and wrote those essays".* As each teacher spoke with others in their small research group, they re-membered—re-connected—to the embodied sense of *"heart singing"* moments with students. In a performative materialisation, speaking together—re-membering in conversation—the connecting tendrils of others' experiences became layered through a mutual re-iteration of each teacher's embodied memory. The moments of both the encounter itself and the re-telling of it in the group, entwined into each teacher's professional sense of self, to become available as possibilities for responding in new instantiations of teacher⇔student moments. The art of becoming-teachers in ways that invent possibilities for life (Deleuze, 1990/1995) is in negotiating all the various shifting forces and intensities encountered in the day-day passage of teaching work, an art-form that brings its own reward.

Chapter 7: An anthology of stories from the year

In this chapter I diffract another set of stories. These five stories were gathered in the collaborative research group over the course of a year. Three of the stories were told to the whole group, and two in small sub-groups. The first two stories turn around one portion of intra-action in a classroom while the other three unfold more like skipping-stones. In these later three stories, as group participants contributed new knowledge to the initial story, they added a rich and extensive texture to each narrative.

In this chapter, I adjust the lens of my analysis. When thinking with the Exam Trilogy, I concentrated on introducing and thinking with relational⇔materialist theorising. In those chapters, I allowed performances of KC-actions to surface and appear for themselves amidst the weaving of dense theory. Now, in the gestalt of these stories, while I keep theory very present in my reading and writing, I pay careful and deliberate attention to foregrounding and problematizing the performance of KC-actions in each story.

In the following set of stories I probe the contours of the event as told with the research group to open thinking with KCs to a wide spectrum. I pay particular attention to affects and their effects—as a way into *haptic* space—the embodied territory of smooth space and of lines of flight. Alert to the flux of striated and smooth space, I continue to note singularities, thresholds, and forces at play in dynamic entangled moments.

In this chapter I forego the detailed scene-setting of the previous two chapters, and call on the reader's imagination to fill any gaps in my broad-brush descriptions of the materialised place and space of each story. Sometimes in my analysis of each story I hover over the teacher and the KC-actions they performed, and sometimes I focus on the young person.

In considering the intra-active performative nature of learning and action, it is the performances of KC-actions in assemblage **as a whole** that are of interest to me. All five domains of competence are present and entangled in every story, but as I cut analytic openings some domains may be brought forward more than others. In this chapter, I name only briefly specific KC-domains, allowing performances of KC-actions that were hidden, masked, or obscured in the original telling to be revealed and considered.

Where should the felt pens be?

Rachael told her story to the whole research group. As it unfolded participants asked questions and made comments that connected them with Rachael and the classroom moment she was speaking about, and also with their own teaching practice. This story focuses on actions in Rachael's classroom that occurred in the short timespace of a minute or so.

At this school, students remain in the same form class and ideally with the same teacher throughout their five years of high school. Rachael was the form-teacher of a Year 10 class, and having been with them for a year already, knew her students well, and they knew her. In the early weeks of the year, she arrived in her class one morning to be met by a tableau. Instead of the bustle and chatter that usually welcomed her, she was greeted by a potent silence, with every eye directed her way. One of the young people in her class, Moana, struggles with change and difference. Attending high school was particularly challenging, as she negotiated the numerous daily movements of the social and material environment. As soon as Rachael entered the classroom, she knew she had walked into a situation. There was Moana, standing waiting for her, holding two handfuls of felt pens.

Walking in to that situation

It was form-time in the morning
I just went into class
and everyone was sitting there
really pretty quietly –
and they were looking and waiting
for some sort of reaction.
And I walked into that situation.
I just had a feeling of
something different going on.
>   *Rachael*

As soon as she stepped through the door and paused, Rachael sensed that something was going on. The pause of that moment was a singularity in which "a turning point", "a point of condensation" (Deleuze, 1969/1990, p. 55), neutral in itself and potent in potentiality, was active. It was a threshold moment. As Rachael paused, she read the cues that coursed through her body. Her eyes registered that the students were holding themselves in unusually still ways. She heard the silence. In that moment she was alerted to *"Right—this isn't usual"* and registered an embodied micro-shock of change (Massumi, 2005). Rachael went on to describe this unusualness as tension, *"There was a tension in the room of 'We hope this doesn't turn ugly'"*.

As an extension of cognitive ways of making meaning or sense from (the KC-domain) Language, Symbols and Texts, Rachael employed a complex embodied literacy as she perceived and attended to the affective tone in the room. In that moment, both the students' bodies and her own body, as well as the felt pens, chairs and tables, became texts. The way the students held themselves, the looks in their eyes, the expressions on their faces, the felt pens held up in two handfuls—were all communicating something to Rachael and to the assemblage at large. In the potent and inhabited silence (Mazzei, 2007) of that moment, a lot was being said as

the flow of affect and meaning materialised in, through, and from bodies in the room.

In the research group discussion, Mark noted that he too had faced similar situations where he had walked into a classroom and felt that *"something's going on here"*—a something that he knew he would be called on to deal with. The very materiality of Rachael's and of Mark's bodies, as instruments of affective perception and recognition, preceded any rational or cognitive thoughts of a response they might enact. Affect and the perception of affect came first. Then came the action. In this instant—because she took a momentary pause—Rachael was able to quickly read the situation and form a *"diplomatic"* response.

While the focus of the classroom assemblage was on Rachael as she entered the room, the other actors in that assemblage were not inert. There is a sense that all students were 'holding themselves'—waiting for Rachael to arrive. The very silence and stillness of the other students was active as a quiet containing force, helping Moana manage the distress she likely felt when she discovered the pens.

How did she get the pens?

So I looked around and I saw
Moana had two handfuls of pens.
My felt pens.
And I thought
"Oh I wonder how they got where they did?"
and I said
"Oh Moana, you've got the felt pens"
And so she smiled and said "Yes".
        Rachael

Rachael's thinking in the threshold of the pause kept open a number of possibilities. She maintained a wondering stance, and in her descriptive commentary *"Oh Moana, you've got the pens",* conveyed to Moana that

she had noticed the pens, and noticed that this was a troubled situation for Moana. She connected to Moana in a composed manner, opening space for Moana and the other students to perform themselves in calm ways.

"Well how did you get the pens?"
and she said
"Someone put them in my bag."
And I looked around and Daniel
goes like this - pointing to Tina.
Tina had put them there
deliberately
hoping for some sort of reaction.
　　　　Rachael

Thinking about the materiality of the pens as vibrant matter in this scenario, raises the question "What do the pens do?" (see Deleuze & Guattari, 1980/1987, p. 257; Taylor, 2013, p. 692). How were the pens entangled with the "dynamic reconfiguring", "intra-active co-constitution" (Barad, 2007, p. 170) of the moment? What were their affects? The pens had called Tina to a moment of mischief as she picked them up and placed them in Moana's bag, disorganising the space and order of the classroom. Hard, thin and familiar objects, they were out of place, invading Moana's private space. "Mundane things choreograph an invisible pedagogy of relations which matter; and … things as mobile elements enfold matter and meaning at a micro-level in a spatial web within classrooms" (Taylor, 2013, p. 697). The pens did not belong in Moana's bag. They belonged to Rachael. They rattled in the bag and they threatened to rattle Moana.

Daniel picked his cue from Rachael. He also was carefully reading the situation, and by taking the action of pointing at the culprit, Daniel was performing himself as a caring, responsible, ethical participant in the class. And the quiet way he did this, not saying anything but clearly indicating, helped maintain the calm affective tone that had begun to circulate and

dampen the tension. If he'd called out in a loud voice, Moana may well have been distressed by the shock of abrupt noise. Daniel's quiet gesture was both a skilful relational practice and also a participatory act of social justice. By 'dobbing in' the culprit, Daniel was standing up for the values of acceptance of difference, of equity and of respect (Ministry of Education, 2007, p. 10) and at the same time clearly sending a message that Tina had overstepped a relational boundary in the community of the class.

Rachael's entrance into the classroom brought order and authority into a potentially disruptive event. Her calm and measured response soothed, but didn't fully diminish the heightened tension of the moment. Daniel's act of alliance with Moana gave Rachael some knowledge of what had brought about the situation, but didn't resolve it. That came next.

Moana's response

I just said to Moana
"Well what should we do now?
Do you think people are just having a bit of a joke?"
And she said "Yes"
and smiled again.
At which point I was a bit blown away -
because that wasn't the response I expected.
Last year her reactions to even things like
other students scrumpling pieces of paper
and not keeping it flat in the bins
had led to –
sort of dying ant moments -
where she'd lie on the floor
and scream and scream.
*   Rachael*

By telling the history of Moana's relationship with 'out of order' materiality, Rachael highlighted the fold of other moments of lived history as productive of the tension of the moment. Remembering similar past events

brought with it a fear that Moana might yet again succumb to a *"dying ant"* moment. Witnessing Moana *"lie on the floor and scream and scream"* would have been a disruptive and distressing start to the day for everyone present, particularly for Moana herself.

There is a combination of smooth and striated space at work here (Deleuze & Guattari, 1980/1987). The singularity of the Rachael-entering-the-room moment was a smooth space chock full of tension and potential wild movement. In framing the pens-in-the-bag that *"somebody"* had put there, as *"a bit of a joke"* Rachael provided an affective and cognitive scaffold for Moana, a tentative way of making sense of and ordering the social meaning of the situation. This ordered striation re-territorialised the space, providing guidance for Moana to smile and take up the line of flight offered by a reading of the pens-in-the-bag as a joke. She then stepped over a threshold into a new iteration of becoming-self, expanding her emotional register (Massumi, 2015) and re-constituting herself as a-class-member-who-can-take-a-joke. "What's interesting, even in a person, are the lines that make them up, or they make up, or take, or create" (Deleuze, 1990/1995, p. 33). Moana took the pens from her bag and returned them to their containers, actualising a material re-ordering of the room. As they maintained an affective tone of calmness in the room, Rachael, the other form class members, and the silent pens and bag, actively entangled with Moana's emerging performance of self-care.

The best possible thing

The class - there's 26 of us -
they just sat there
as well and looked.
And it was a shock in lots of ways.
I sort of held my breath
 when I saw the pens –
and it was one of those
really lovely moments
where the worst possible thing

just didn't happen

and the best possible thing did.

    Rachael

Rachael told that all 26 people in the room felt the affective shock of Moana's new and unexpected response (see Massumi & McKim, 2009). As Moana moved into a new territory of self-care, the whole class moved with her, as *"the best possible thing"* happened.

Oh, I think they were all blown away,

they were all stunned.

It was like no-body said anything

but mouths dropped

like "Oh wow. Did that really happen?"

She doesn't like change and she doesn't like difference.

Surprises are no good.

No wonder we were all shocked.

I was really excited

Because I thought

"Wow! We are making change happen."

    Rachael

Rachael used the term "we" to include the whole class as witnesses and participants to that unfolding moment. Each person in the class would have responded in their own way to the *"shock"* of astonished relief. "The world in which we live is literally made of these reinaugural microperceptions, cutting in, cueing emergence, priming capacities" (Massumi, 2015, p. 55). Primed for new becomings, Rachael experienced a moment of excitement, a frisson of joy as she moved into the territory of a teacher-who-effects-change.

In an affirmative orientation to life, Colebrook (2002) says, "A problem is a way of creating a future" (p. 21). The problem of the pens-in-the-bag carried with it many potential outcomes. In this story, supported by the

care-ful regard and practice of her teacher and peers, Moana was able to perform herself anew, moving her body in a composed way, stepping to the front of the room to put the pens back where they belonged. As Moana enacted a capable response-ability of self-care she was laying down a possible future path to take when she was unsure of the meaning of another's actions. At the same time, others in the classroom assemblage may also have grown a sense—with Rachael—that *"we are making change happen."*

Falling out of friendship

The world of adolescent friendships can be a complex and dangerous space. As young people negotiate this fluid world—often through social media—violent rupturings, and poisonous hurt can fracture relationships in an instant. In a small research group, Huia told the story of a poignant and thorny classroom moment following one such event.

Jonno had been a vibrant lively member of his Year 9 class. However, sometime during the third term holidays he had a major falling out with all the people in his friendship group. Via social media, Jonno had said or done something that had caused great offence, and the effect of this friendship rupture was so destructive that his ability to cope at school disintegrated. By the third week of term, Jonno had been present for only two school days. Huia's story focused on what happened as he re-entered her class.

Stepping over the threshold

He would've spent 5 minutes at least
up the front of the room
just going ….
"I don't know where"

you know not even looking at the class –
going "I don't know if I want to be in here?"
     Huia

In the potent singularity of the event, as Jonno paused at the material threshold of the room, several possibilities for action were immanent. "Singularities are turning points and points of inflection; bottlenecks, knots, foyers, and centres; points of fusion, condensation, and boiling; points of tears and joy, sickness and health, hope and anxiety, "sensitive" points" (Deleuze, 1969/1990, p. 55). Standing at the literal and psychological threshold of the room, Jonno was caught in an entangled web of the powerful forces of affect, of social lines breached and relationships injured, and of sustained absence and separation not just from his friendship group, but also from the class and the learning. In a quivering, hovering moment of awkwardness, competing forces knotted together to render Jonno immobile. He either didn't know what to do, or he couldn't do what he wanted to. He was stuck.

Huia was aware of some of the circumstances surrounding Jonno's absence from class, and could see the difficulty he was having.

Initially I said
"Where would you like to sit?"
and he couldn't make that decision
so I gave him the cue
to go where I thought
he would feel the safest -
and I hadn't checked it out
with the other student beforehand.
So I guess it was me
taking a bit of a punt
and hoping that the other student would be all right with that.
     Huia

Reading the situation, Huia used her knowledge of the students in the class to follow an intuitive *"punt"* to draw Jonno into the relational and material space of the classroom. In so doing she re-made the social world, as her knowledge-in-action (Bishop & Glynn, 1999, p. 77) guided her in directing Jonno to a seat. Jonno became a part, a participant—albeit an unsure one—in the learning assemblage of the classroom. A 'part' while at the same time holding himself a-part. Huia's pedagogical knowledge of the other boy and the relational practices she had witnessed him engage in, led her to hope/trust/believe that sitting beside this boy would provide a measure of physical and psychological safety for Jonno.

In the process of moving towards Jonno, Huia was enacting a number of complex readings of the situation. Her approach to Jonno needed to be carefully nuanced as she sought to open space to invite him in to the class, but not to exert a level of pressure that might prompt him to flee. Exerting an ethic of care, Huia wanted to do what she could to preserve Jonno's mana and dignity in front of the other students, and so she was as discrete as possible in front of the other students. At the same time, Huia was taking care of her relationships with other students in the class, some of them the same students that Jonno had wronged. In the workings of that complex and contested moment, Huia was skilfully attending to both Jonno and the community of the class in participation together. As she scaffolded a way out of 'the stuckness' for Jonno, she was actively fostering in all students in the classroom assemblage, the development of competency in self and relational care in the participatory social context of the classroom (Ministry of Education, 2007, p. 12).

In the research meeting, Huia told that Jonno did step into the room and sit beside the other boy, taking up the affordance she offered him. Together they had negotiated a difficult moment. However, as she told the story, Huia expressed some doubt.

And it's quite hard when a student like that comes in
and he himself hasn't been all that nice

to some other students in the class.
He's very fragile
so I'm not even sure
I'm doing the right thing –
So I tried to support him back in
but I don't know if I succeeded.
     Huia

Like Jonno's, Huia's own sense of her competence in the situation was stretched. The fear of not *"doing the right thing"* lurked underneath the actions that she took, threatening to dismay her. As she facilitated Jonno's re-entry to the material space of the class, Huia was aware that negotiating a return to the relational space of peer relationships was potentially more difficult and risky.

In the research group Andy noticed a resonance and connecting thread with aspects of his teaching experience. In his comment about similar moments he had experienced, Andy reached across the sense of isolation that self-doubt had manifested for Huia and he joined with her in a moment of discursive professional empathy.

Some students don't want to
make a decision about where to sit.
But if you say
"You're sitting there"
then they can't be blamed
by another student
for doing something [uncool] …
     Andy

The physical materiality of classroom space, desks, bodies enclosed in a room together; and the fraught world of adolescent relationships—friendships, enmities, likes and dislikes, connections and disconnections—entangle together with and as strong affective forces. As bodies in the

room, students perceive and respond to these forces in subtle material and relational positionings of the self, with access to learning impeded or facilitated by strong affective flows. The teacher taking the lead, in the way Andy suggested, asserts a measure of striated control into the messy emotional whirl of social relationships, acting as both a physical guide—where to sit—and a prompt to the student to take action and come into the room and participate in the lesson.

Huia noted that during the lesson the mood of the class was different to a time the previous week when Jonno had made an attempt to re-join the class.

I was pleasantly surprised.
He'd come in once last week
and he left very quickly
because he said
there was a look – or something.
Today I didn't see any of that –
not that I'm all-seeing in my classroom
But I didn't feel any of it
Whereas that other occasion I did think
"Something's happened here".
   Huia

The memory of Jonno leaving quickly the previous week kept that possibility alive for Huia as he stood at the doorway again. Last week, Huia had felt the effect as an optic look was translated into a synaesthesic haptic event and affective flow in the classroom. "*The look"* had been felt so intensely by Jonno that he had fled the classroom. Huia too had a sense of it. Remembering this, and alert to the possibility of a repetition, Huia may well have been holding herself in a state of alertness, particularly at the beginning of this lesson. Today though, Huia realised that the tone of the class was quite different. This week she didn't sense any rejection of Jonno flow through the room. Somehow—somewhere—

there had been a shift in the relational world of the students and the intensity of the previous week had dampened so that Jonno felt safe enough to enter the room.

There are many steps and thresholds in the task of supporting a student back into class. Jonno took a literal step into the class and, despite his trepidation he engaged in his learning. The class assemblage, students/Huia/desks/the-boy-in–the-next-seat/the learning activity, was in its machinic unfolding, an agentic actant inviting calm purposeful learning (Bennett, 2010) and folding Jonno into itself. So, while Huia was experiencing the discursive professional responsibility to support Jonno back into the class, and while her actions were significant in helping him across the threshold, other forces in the assemblage were also at play in fostering Jonno's capacity to stay in the room that day as an active, albeit quiet, participant.

A fight in the classroom

Joseph was one of a small group of students Ella was working particularly hard to engage in class. On the day of this story, Ella had been especially pleased as Joseph had sat himself at the front of the class away from his friends and was concentrating on the assigned task. Several times he'd called her over to check his work and take note of the progress he was making. In the middle of the lesson, Ella was helping a couple of girls on the other side of the room. She had her back to Joseph, and was surprised when two students called her attention to a ruckus happening around Joseph's desk. A fight had erupted between Joseph and two of his mates, Trax and Kahurangi.

In Ella's initial telling of a moment when a fight erupted in her Year 9 class, a strong educational discourse of keeping control cast a long shadow. This discourse positioned Ella as somehow having failed. However, opening up the story in conversation with the group brought other possibilities to light as performances of KC-actions were noticed and explored. As the story unfolded, it was re-territorialised as acts of care and responsibility were identified.

The double shock – the fight and the hit

I start the analysis of this story in the middle (see Deleuze & Guattari, 1980/1987, p. 23), as Ella literally found herself in the middle of three young male bodies lashing out at each other. The materiality of that intense event was for Ella and her class a wild and stormy singularity.

I immediately went straight in

I didn't think

I just did

> *Ella*

Between the shocked moment of being alerted to the fight, and finding herself in the middle of it, Ella moved with the spontaneity of instant action (Massumi, 2005). Thinking came later. As a teacher, and as the only adult in the room, educational discourse—enshrined in striated codes of practice—informed Ella she was responsible for the care of all students in her room. The strength of this discourse acted on the materiality of Ella's body and she responded by stepping between the boys. It was there she received another shock, a blow to her misplaced body as she was caught amongst the blows and hit, although not badly hurt. The effects of the hit were still reverberating in Ella's telling as she exclaimed ten days later, *"it took my breath away"*. The embodied materiality of affect was magnified by the physicality of a violent act, doubly shocking Ella. As the situation unfolded, Ella physically held on to Joseph, feeling his embodied distress, *"you know his heart was going crazy"*.

Moments like this produce an ethical dilemma for teachers, and the options Ella may have taken were discussed in the group. Massumi (2015) speaks of the pragmatics of ethics, and that rather than judging what is right and what is wrong, "the ethical value of an action is what it brings out in the situation, for its transformation, how it breaks sociality open" (p. 12). Frances, one of the other participants commented:

Sometimes you have to step in.
By the time you've sent for someone else
they'll have knocked seven bells off each other.
Then that's when things can escalate
and other kids get involved.
       Frances

In this story, Ella's action stopped the fight, and one of the aggressors fled the classroom. Ella sought help from senior managers and order was restored. However, the double shock of the fight, erupting as unexpectedly as it did in her well-ordered classroom—and the hit—invited Ella to continue to question herself *"How did I miss it?". "What cues was I not hearing?". "I ought to have known better—I've quizzed myself constantly over why I couldn't see it coming"* (Ella). Ella's constant self-questioning had eroded her sense of her-self as a competent teacher. The structured discipline that produced students as docile bodies (Foucault, 1975/1995) had been shattered by the fight, telling Ella that she had failed in her duty to keep control. Camouflaged in professional discourses of 'well-managed classrooms' and the 'good teacher who has her finger on the pulse of the room', notions of the teacher as hierarchical observer (Foucault, 1975/1995) lurked as a judging presence in Ella's classroom.

However, opening the story to further inquiry makes known performances of ethical and professional actions in difficult circumstances. In moving to stop the fight, Ella was acting on behalf of care for her students and her responsibilities as a teacher. She was also acting on behalf of the values of social justice and peace. Her action can be seen as a spontaneous act

of participation and contribution to the wellbeing of her class community. Ella's story becomes re-territorialised from one of failure to one of care, care for the individual students involved in the fight, and care for the class as a group.

When relational practices cause harm

Prior to the fight, imagine the whole ordered class assemblage. Tables, chairs, Chromebooks and the lesson structure, all at work containing and shaping the working and movement of bodies in physical space. Joseph was sitting quietly at his desk, engaged in his task, and Ella was moving around the room working with other students.

He wanted to be on his own
so he was at the front of the room
he wanted to work hard
  Ella

Yet even in that controlled and striated space, an undercurrent of movement occurred when Trax and Kahurangi *"had a go"* (Ella) at Joseph. As Joseph composed himself as a working-student and 'fell in' with the expectation of his teacher, he somehow 'fell out' of the competing expectations of his mates. Perhaps they were upset to witness Joseph's emerging student-who-is-working-hard self and reacted to it in a way that was familiar to them. So they taunted him, calling him a *"retard"* (Ella), and he reacted to the offense of that taunt.

He finally got up and said
"You say that to my face."
  Ella

Joseph reacted to the goading. He had been performing himself as a competent student, but was unable to resist the power of the taunt from his friends. At that moment such an act of resistance was beyond his means. Ella regretted this:

He should have turned the other cheek.
If he had said
"Miss, Miss, they're giving me grief"
That's what I would have liked him to say.
  Ella

For Joseph that day, calling on his teacher for help was a step too far. However, during the fight he managed to exercise restraint:

"Miss, I didn't hit him. I didn't hit him."
He was really proud of the fact that he didn't hit.
  Ella

While a first reading of the KC Managing Self might say, as it did to Ella, *"he should have turned the other cheek";* in the same event there were different threads of self-care at play. In this event, it is not a question of whether Joseph managed himself or not. He did. Joseph had already demonstrated that he could perform himself as a capable worker, and that he could take charge of himself in the classroom. However, the affective shock of the taunt triggered well-worn and known responses that were in-that-moment a much stronger force than his new and tentative working-student performances. Being able to read all the social cues in a situation, and have the bodily control to not react to such provocation is a complex task, and might well be a learning edge for Joseph. He did however demonstrate care for himself and care for Trax and Kahurangi, by not hitting them back.

Frances put Joseph's reaction into a social context saying:

I don't think that many 13 year old boys would say
"Excuse me Miss,
these boys are harassing me"
They'd just want to retaliate.
  Frances

A reading of the event through a lens of emergent becomings creates room to recognise the growth and new shoots of competence that Joseph was performing in that situation, and leaves space for the recognition of other new-becomings.

The wider class assemblage

In the wider assemblage of the classroom, the question of how the fight affected the other students arises.

They were very passive.
There wasn't anyone getting up
and encouraging them.
They were all
shocked
like I was
It happened just like that
      Ella

Ella wasn't the only one who was shocked as bodies in the class resonated together in community. Two students had intervened by pointing out to Ella what was going on, but no-one else had joined into the physicality of the fight. In fact, lack of action, not jumping in to the fight—keeping out of the way—may well have been very helpful actions for other students to take in that moment. All present would have been affected by the explosion of such intense violence, but each would have experienced a different response due to their histories and experiences, their somatic memories (see Massumi, 2002b). Physical passivity may not necessarily be a lack of participation, it may well have been a muted contribution.

On hearing the story and witnessing Ella's distress, participants in the research group extended care and compassion. They drew on their own classroom experiences to reach out to her.

But it is shocking
and I remember an incident –
I remember going home
and I couldn't even sleep because
I hadn't seen anything that bad
for quite a long time.
And – you know – I went to
Samuel's office and said
"I'm not sure I want to teach
this class anymore.
I think I need to go and do
something else
because this –
this can't be going on all year."
    Jane

The question then arose in the group about how to attend to the distress the class had experienced. Ella was unsure about how she might reflect on this incident with her students, and the research group offered some useful advice. Georgie suggested a transparent naming of the shock and distress. She added:

I would get someone else in
because it's hard when you're
talking about it yourself.
I'd get quite emotional about it.
And maybe just express
what you would like to happen.
"Please – if you sense anything happening
Please be the voice"
    Georgie

As the research group drew together in a community of care around Ella they participated in a sharing of professional responsibility. The edges of

Ella's isolated sense of self were blurred as group members recalled similar experiences and offered support and advice. Engaged as they were together in inquiry, knowledge about how to go on was produced between them.

Addendum

There is a poignant addendum to this story, which illustrates how the intra-active effects of the fight rippled outwards. Mary told a short story of her encounter with Kahurangi following the fight.

I just happened along the corridor
at the same time Kahurangi was
sitting outside Brad's office - waiting.
And he said "Can you help me Miss"
He said "I'm in a lot of trouble".
And I said "Oh what's happened Kahurangi?"
and he said
"Well – they want me to write down
what actually happened"
and he said
"I can't do that."
So I sat with him and he spoke
and I wrote it down because he couldn't.
He accepted he'd done something very silly
and so here he is.
And he wouldn't let me write down
some of the things he'd called Joseph –
because he wasn't happy with what he'd said.
He said "And you can't hear that"
which is interesting considering
we're talking about managing self
but he is – socially aware that
he didn't want to repeat what he'd said
in front of me.
        Mary

Ella's story had described how in the heat of the moment, Kahurangi (with Trax) had acted in a way that was hurtful and disruptive of relationship. Mary's coda brought further knowledge to the research group. Kahurangi clearly valued his relationship with Mary and didn't want her to think badly of him. He was also able to ask her for help to order his thoughts and write them down. Asking for help is an effective strategy to meet a challenge. Kahurangi was mobilising his relationship skills to interact effectively with Mary in a difficult situation, one in which a number of uncomfortable emotions were swirling.

Mary's vignette of her encounter with Kahurangi casts another light on this young person's competence to care for himself and to relate to others. In the intervening timespace after the fight, he had the opportunity to reflect and think about his actions earlier in the day and to experience remorse. Multiple opportunities to judge ourselves as failing exist in our society (White, 2002), and having engaged in relational violence, Kahurangi knew he had done wrong. However, within the disciplinary practices of the school, there was also opportunity for Kahurangi to learn and practice ways of restoring the relationship that had been harmed, and so re-open and foster his capacity to be an active member of the school community.

The penny-drop factor

Ariana was now in Year 13. Ed had taught her for 4 years and knew her well. He described her as an *'up and down'* kid and a *'smart cookie'* who should be *'getting excellences'*. Ed had noticed that Ariana was struggling to complete work. He could see that she was losing heart as she wasn't making any progress, and so he helped her through each stage of the assigned work. But he noticed that the same issues kept cropping up and Ariana was still struggling. Something else needed to happen.

On an initial surface telling, Ed's story also presented itself under the guise of Managing Self. But again, as the research group inquired further, they noticed moments where every KC was mobilised. In particular a very strong thread of caring relationship shone through. Like the previous story, this too skips forward, as the rippling effects of a learning moment in the classroom became collaboratively known as other research group members added to the discussion.

Over the time knowing each other, the space between Ed and Ariana had become a rich resource of mutual understanding, skills, shared history, safety and trust. This knowing was not only of subject matter, but also of each other. Aware of Ariana's vulnerability, the gender difference and the operation of power in their relationship, Ed took extra care to protect her and himself. Ed connected with Ariana in carefully negotiated and navigated movements, to meet her in the exigencies of her lived becoming.

So I went through it all with her again –
and this happened
three times on the trot
and I was beginning to think –
"This is doing my bloody head in!"
>   *Ed*

While Ed had acknowledged that Ariana had troubles in her home life, his concern for her was prompted by her learning needs, and the troubling effect he could see of her "*losing heart*" (Ed). Ed experienced a threshold moment when he reached the level of frustration of "*this is doing my bloody head in*". The composition of Ariana as "*losing heart*" entered into Ed's composition of himself as a teacher, in a felt and embodied way. In a haptic enfolding/unfolding of events, imagine the gestures that may have accompanied "*doing my bloody head in*" as affect materialised in Ed's embodied form—eyes cast down, shaking of head, hands to forehead. The frustration served as both a clue and a cue that there was a block, a

stuckness, a learning need that was not being met, acting as an agentic force and prompting Ed to try something new—to differenciate—and so re-constitute himself as a teacher.

And then I thought
"Hang on a minute –
I haven't actually stopped and shown her
how to juggle these things together,
how to prioritise, prioritise by time,
prioritise by resource –
all these different other facets of it.
So I asked her if she wanted to
come back after school
and we'd go through it.
    Ed

Carefully stepping beside Ariana in her overwhelmed state, Ed paused. He had a think. He stopped the instrumental subject-based support he was offering and considered Ariana's wider learning needs. In doing so he shifted his thinking and his actions to the learning arena of the front-half of the NZC.

I went and got my planner
and laid that out to show her.
And I think she would have
got the idea that this isn't something
just because you're Year 13 –
this is a life skill.
    Ed

In a practise of discursive empathy (Sinclair & Monk, 2005), Ed performed himself as experiencing a life that was analogous to Ariana's, flattening a traditional teacher-student hierarchy. His planner materialised a line of flight, from the problem territory of 'not completing work as a failure to

cope', to that of 'being overwhelmed as a common reaction to diverse life events'. Ed offered Ariana an opportunity to hook into a new way of relating to life demands, to notice how the technology had worked for him and perhaps see how it might work for her.

The materiality of a plan

So I ended up doing a time-plan with her
spread out over the whole year
and every other subject that she's taking
and we analysed and unpacked all of those things ...
I just kind of got her to make sense of
what her working week was about –
what things were important at what times.
And she went ahead and did it all -
sorted it all out –
and it got her on track.
    Ed

Ed stretched his teaching practice to draw on his own life experience and try something different for Ariana. Widening the scope through which he viewed both his own life and Ariana's, enabled Ed to see her as more than a-student-struggling-to-cope-in-my-class and to meet her instead as a young-woman-struggling-to-cope-with-competing-life-demands. In this teaching⇔learning moment, the materiality of creating a written plan helped Ariana structure and contain the pressures that were affecting her.

I think that has helped her
because every lesson she always turns up and
the first lesson of the week
she pulls out this great big plan she's made
and she keeps referring back to it
so she's still on track to pass with excellence.
    Ed

For Ariana, the materialised act of encoding and recording thinking around how she could juggle and manage a variety of demands, transformed intangible hopes and intentions into a time-lined, purposeful and structured record, creating an avenue for her to engage meaningfully with her learning. As Ariana kept the inscribed paper physically close, carrying *"this great big plan"* in her bag, it remained a vital, active living document, easily accessible to her as a referencing and remembering tool. Ariana's plan acted for her as a striated chart, guiding her navigation through competing demands and leading to a smooth space of transformation and re-territorialisation in relation to herself as a learner.

In the Ariana-classroom-Ed-plan assemblage, the plan itself was agentic (Barad, 2007; Bennett, 2010; Jones & Hoskins, 2016), it had 'thing-power', it had effects, and it made demands of Ariana. In its active guidance of Ariana, it also acted as an emotional regulator, modulating her individual affective response to the embodied pressures of so many demands. This modulation, the containment of overwhelming anxiety, and the enhanced sense of achievement, then folded back, inspiring Ariana to stay *"on track"* in an emergent causality of the assemblage (Bennett, 2010)*.* The structure of the plan, as a "regularised infolding of an aleatory outside" (Massumi, 1992, p. 58), joined with Ariana's developing habit of consulting it every Monday. This regular joining of ordering forces brought concomitant ordering and 'management' in the space of Ariana's emotional responsiveness to the world.

The rippling passage of a line of flight

Other students in the class noticed Ariana's new-found organisational competence and wanted some for themselves.

And then – it must have been a week after that –
Billy McKillop and Snow Edmonton and a few others –
all started coming along cause they'd seen –
Ariana had shown them what she was doing –
and they wanted to check what they were doing was right.
She'd shared it with them -

and just by talking really
it started to spread out there
so you're getting this
tuakana-teina thing taking place.
     Ed

As Billy and his mates entered into relationship with Ariana-the plan-Ed, the learning relationship morphed and spread as Ariana performed herself as a competent learner-teacher. Initially, as she talked with the boys, Ed was virtually present in the assemblage, but he became materially present as the boys then sought him out for extra tuition. The learning-assemblage expanded to include the boys and they too traversed to new learning territory. In the flattened assemblage of the peer-teacher-learner-plan relationship the individuation of each was a site of motion, as the de-composition of old habits and re-composition of new ways of learning and becoming were taken up.

It meant she'd got it

The ripple of affect from the Ariana-plan-boys assemblage folded back to Ed and his sense of himself as a teacher. He gained tremendous pleasure and satisfaction from witnessing the effect the plan had on both Ariana and the boys.

*I was chuffed because it meant **she'd got it***-
and she'd made a success of it
and it was important to her –
So – yeah – I did feel good about it
it was just like – you know that teachers get
the penny-drop factor when the kid
finally understands what you're on about –
it was like that.
     Ed

And with that satisfaction, a refolding into the learning-relationship occurred as Ed thought about on his teaching practice:

I really need to be actually
teaching them how to do this.
It affects the assessment
even though it's not an assessed part.
    Ed

In this moment Ed recognised the importance of front-half curriculum learning, and that taking the time to attend to this learning would enhance back-half subject learning. In a delightful refolding and collaborative knowledge sharing, one of the participants of the group added to Ed's story.

She's written about it, Ed -
as a strategy to use in the future
for time management –
and having a journal
and a calendar on her wall
and a roster
all those things you mentioned have
come through in her report
    Penny

What a gift for Ed as a teacher, to see the on-going effect of his work with Ariana. To receive unsolicited confirmation that Ariana had embedded the learning they undertook together into her life repertoire, and in creating the plan with him had literally re-inscribed herself as a learner. For Ed to know that she had not only seized a learning opportunity, but planned to take that learning forward into her life to "enable [her] to live a full and satisfying life" (Ministry of Education, 2007, p. 8), was a powerful and potent affective refolding of the work he and Ariana had constructed together. In speaking to Ed of Ariana's on-going relationship with the techniques of the plan in the assemblage of the research group, Penny offered Ed

knowledge that contributed to his own processual in-forming of him-self as a teacher.

From performing trouble to performing haka

The final story in this set is another skipping-stone tale. Wyn brought the story of an encounter she'd had with a young student to a research conversation with Donna, Mike and Ruth. After Wyn had told her story others in the group added to it, piecing together their knowledge about the happenings in one boy's day. As it unfolded, a story of transformation was told. This story tells how participation in one potentially troubling group activity, was re-territorialised to the potential to participate in the wider cultural and material activity of the school.

As Wyn walked back to her class at the end of interval, she came across a group of students surrounding one boy, Kelvin. Kelvin had a marker pen in his hand and was tagging. As soon as he saw Wyn, and knowing he'd been caught in the act, Kelvin threw the pen onto the roof of the building. He then began walking with Wyn back across the playground to talk to a senior manager.

The nomad tagger

Tagging is a sub-cultural activity that may be viewed as an act of defiance and resistance to dominating authoritarian strictures and striations. As a locally interpretive mechanism of signs and recognitions, when it is practised on school property it is viewed by those in authority as an egregious act of vandalism, and powerful deterrent consequences are applied to any young person found tagging. When Wyn saw Kelvin tagging, she knew it was not the first time he had been caught, and he undoubtedly knew he would be in trouble. So what might have prompted him, despite powerful prohibition and disincentives, to take up the pen and start drawing?

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In the group Donna spoke about an earlier incident when Kelvin recognised a tag in her class:

I think his identity is tied up in the tag.
I had a tag on one of the chairs in my class
and it's painted and I can't get it off.
And he said "Who did this?"
and I said, "I don't know,
I've had that for ages."
And he goes
"Because this tag is a such-and-such"
and he knew the tag
and could tell me something about it –
but he wasn't willing to tell me
who'd done it
he said "Oh no. Can't tell you that".
     Donna

Kelvin followed a code of belonging, separate to the rules of the school, and wouldn't divulge the identity of the tagger to Donna, keeping tight-lipped, and thus enacting respect for the values of the tagging fraternity. Tagging is indeed a form of participating in a particular community; the marks on buildings, chairs, walls, bridges, and fences are a codified cultural tool, carrying meaning and expression for those who belong to that group. Indeed, the practice of tagging may be thought of as participating as a creative nomad in a space of deterritorialising, travelling and moving on. Tagging cuts across the codified territory of the school, and marks a space of intensity "without borders or enclosure" (Deleuze & Guattari, 1980/1987, p. 380). Marks—often left in difficult and dangerous places—remain as a cultural sign to others to read and make meaning of.

Thinking with Bennett (2010) around the thing-power of the pen itself, I suggest that perhaps Kelvin was drawn to the silent call of the pen. Like a

siren on the rocks it may have been enticing him, "I'm waiting for you", "I'm here for you", "Tag with me". Whatever its mysterious allure, the material agency of the pen, combined with the strong social approval of not only his audience at school, but the tagging community, afforded an opportunity that induced Kelvin to pick up the pen and to put it to use in a way he knew well.

In the moment of time before Wyn came across the playground, the thing-power of the pen to affect and be affected mixed with Kelvin's hand, his material body and embodied history. The bodies of the students-as-audience entwined in assemblage with the pen-Kelvin, calling on Kelvin to act—to create a tag. That call was stronger in the moment than the contesting powers of the rules and authority of the school. "Our lives are crisscrossed by multiple lines of subjectivation" (Winslade, 2009, p. 335). In that moment Kelvin-as-tagger took precedence over Kelvin-as-student.

In terms of the KCs, in engaging in the act of tagging, Kelvin mobilised a capacity in every category. In various ways his tagging may be read as: a performance of self as a resistor-to-authority, a way of making meaning through language, symbols and text writ LARGE or small, a performance of self as daring, as having a "can do attitude" (Ministry of Education, 2007, p. 12) and the capacity to take a risk, and as connecting with others in the tagging community and to the audience who witnessed the tagging. In the independent act of tagging, nascent leadership skills may be found germinating along with a resilient sturdiness to still keep acting in a way that accords with his beliefs even though the consequences of doing so may be severe. All the above competencies may be valorised in a young Mahatma Ghandi or Nelson Mandela, but may well have been submerged in the eyes of powerful adults in the trouble of the moment.

The force of school rules materialised in the form of Wyn as she walked across the playground. As a teacher and adult, invested with the institutional authority of the school, the shock of Wyn's arrival on the scene broke the Kelvin-pen-audience assemblage apart—and he tossed the pen

onto the roof. Kelvin reluctantly complied with Wyn's request to come with her to the deputy principal's office. Once again Kelvin was a student-in-trouble, and in submitting to Wyn's authority he performed himself as chastened-student. And yet within that submission and obedience a tentative sense of facing up to trouble and literally stepping towards response-ability may be glimpsed.

Another shock – another movement

In a school, movements through spaces often don't go as smoothly as teachers might hope, and walking to the office was one of those times for Wyn.

He started to walk with me and then he stopped.
We saw Brad just walking in the background
A little further along by the office
and Kelvin decided No –
he wasn't going to go after all –
and then he just took off.
    Wyn

Seeing Brad (the deputy principal) may have been just enough of a shock to Kelvin's reluctantly-walking-towards-consequences-body, to spur him to new action. Affect, received optically, met past history and knowledge of consequences and in an instant before thought happened, Kelvin's body propelled him to take up the affordance of free playground space and fast young legs, and flee the scene. Wyn carried on walking and reported the matter to Brad, thereby shifting the responsibility for further disciplinary action to a hierarchically more powerful authority.

At this point, Mike, who had also taught Kelvin that day, picked up the thread of the story.

I had Kelvin period 4
and Brad came and got him from the classroom then.
He's had that kind of thing happen

many times where something's happened –

and he's bolted –

but he knows the system will catch up with him later.

So it's not like he's trying to avoid it altogether

It's just in that moment he's avoiding it.

  Mike

In the intervening time, from the end of interval and during period 3, Kelvin must have done some thinking, some reflecting on his flight, and decided that he would attend class—once again submitting to school rules—rather than become truant. Somewhere in the hour between running away from Wyn and attending Mike's class, Kelvin gathered himself together, and once again stepped towards responsibility and becoming-student. When Brad came into Mike's class, Kelvin walked out with him. He didn't run away again.

Singing liveliness

Donna continued the story about Kelvin:

I had him period 5

and he was singing

and he said he wanted to join the Kapahaka

and I said "When?"

and he said "Next year"

So that was, I thought, a positive thing.

He sees himself still being here next year

and wanting to participate in something.

I've never seen him participate

in anything at school.

  Donna

We don't know what kind of conversation Brad had with Kelvin, but we can guess it was one in which Kelvin was able to re-author (Monk et al., 1997; White, 2007) himself, from student-in-trouble to active-participant-in-the-wider-cultural-life of the school. Kelvin had taken up a new line of flight, a

re-territorialising where he was able to imagine himself performing as an active member of his school and cultural communities in the Kapahaka group. Coinciding with a sense of future self, and perhaps relief that he wasn't in as much trouble as he feared, a joyful feeling flowed through Kelvin with a singing sense of aliveness. Somewhere in his conversation with Brad, a "margin of manoeuvrability" (Massumi, 2015, p. 3) was prised open to make a space for the potential for Kelvin to knit himself further into the school community. In that manoeuvrable space, hope and freedom emerged as companions with Kelvin on a next step of emergent becoming.

Walking as controlled falling

In each of the stories in this chapter, teachers have been immersed in intense intra-active mo(ve)ments (Davies & Gannon, 2009) in their relationships with students, things, discourses and teaching matter. Every story tells of lived performances of ethico-onto-epistem-ology (Barad, 2007, p. 185) as teachers and students have navigated and negotiated their way through complex and competing forces. Each of the situations the participants described had the potential for a number of outcomes, and not every resulting outcome was initially seen as optimal by the teacher involved. However, as the research group delved beyond initial slim readings of KC-performance, every story revealed moments of agency, acts of courage, of care, and of wonder, that spoke to a vibrant liveliness of competent becoming for teachers and students.

As these teachers talked together in the research group meetings, they didn't engage in a staffroom-type expansion of a 'problem story'. Rather, they re-searched the attitudes, values, and knowledges that were present as active components in the performance of KCs (Ministry of Education, 2007, p. 12), unearthing moments of competence that might otherwise have gone un-noticed. The teachers, in conversation together, drew on rich resources of knowledge about their students. That same knowledge was readily available for them to call on when they directed their attention

and pedagogical curiosity to the front-half of the curriculum. As the teachers resisted thin descriptions of the KCs that had been captured by educational discourses of achievement, a rich feast of KC-performance was revealed.

It was interesting to see unfolding in the group discussions a way for teachers of diverse subject areas to connect together through the students. Often in the group meeting participants contributed their knowledge and experience of how a young person might perform themselves, which served to thicken the collective relational knowledge of the group. The students were the common thread, so in bringing the young people to the fore, a common purpose and responsibility for sharing the becomingness—the learning and life growth—of their students was engendered.

In each story the teacher navigated a complex and challenging moment, responding on the spot to the problem in front of them. Massumi uses the metaphor of "walking as controlled falling" to describe moments such as these: "You move forward by playing with the constraints, not avoiding them. There's an openness of movement, even though there's no escaping constraint … it's about navigating movement" (2015, p. 12). As response-able adults in each assemblage, these teachers used all their bodily faculties to read situations, they attended to the haptic, the felt sensations of each moment, and at the same time de-centred from the clamour of their own internal world to attend to the students in front of them. Often they were required to hold the emotional care for a student as carefully as they might hold their care for a student's academic progress, containing moments of distress or unease as best they could. These teachers may have walked, danced, slid, tangoed, shuffled, jumped, or run through the maze of each moment, but what shines out in each telling is the integrity and care for their students that was guiding each of them.

Chapter 8: Living-in-the-hyphen

In the following two chapters, I present material generated in individual conversations with four Māori teachers: Mere, Nikau, Tai and Hana. In the "constantly altering whole" (Rae, 2014) of Te Awa High School, various lines mix and mingle in constant flux, flow, knots, weavings, foldings and unfoldings. The particular lines I explored with these teachers were their pedagogical knowledge and understandings of the KCs, and the way this knowledge intra-acted with their lived experiences and values of whakaaro Māori. I have organised these two chapters by viewing the conversation material firstly through a wide contextual lens (Chapter 8), and secondly by zooming in to particular teacher⇔student relational practices (Chapter 9).

The conversations I had with each teacher were very much about a living place-based pedagogy (Gruenewald, 2003a; Penetito, 2009; Somerville, 2010; Somerville et al., 2011). Particular stories and histories of the land and people of this place, this community, and the connections between them infuse each person's practice. In their turn, Mere, Nikau, Tai and Hana are fostering and developing learners as "current and future 'place-makers' who will sustain, transform or create the 'places' in which we/they live" (Bolstad et al., 2012, p. 26). While I keep the focus on human becomings, what follows traverses some of the place-making, world-making, that is materialising in the workings of this school.

I adopt the metaphor of the hyphen in indigene-coloniser relations (Fine, 1994; Jones, 2012; Jones & Jenkins, 2008) to think with Mere, Nikau, Tai and Hana as they live **as Māori** in the space of an English-medium mainstream school. The hyphen may be thought of as a symbol for separating, joining, and—at times—co-mingling Māori and Pākehā ways of becoming. I stretch the metaphor to imagine 'the hyphen' **as** the multi-dimensional space of the school. A space where "negotiations at the zippered borders" (Fine, 1994, p. 71) of living as Māori, and as

professionals in an English-medium school are worked every day. My research conversations with Mere, Nikau, Tai and Hana inquired into the distinctly whakaaro Māori they realised in day-to-day lived performances of being and becoming in this 'hyphenated' space.

In the first section of this chapter I zoom out to take a wide view of the folding together of place, community, teachers, school and students. I then bring forward the whakaaro Māori values of whanaungatanga and manaakitanga that Mere, Tai, Nikau and Hana spoke of as co-constituting their practice.

The effects of colonisation

This chapter traces where landscapes meet. The landscape of being Māori in a mainstream English-speaking school in Aotearoa NZ, and the landscape of the KCs of the curriculum. Before moving in to the place-located assemblage of the school, I step through time and into the wider community and come face to face with the on-going effects of colonisation. I tell Mere's story here as an illustration of the history of 'this place', 'this school', and the people who inhabit it. It is a story worth telling as it calls attention to some of the wounds in the Māori-Pākehā relational hyphen. Every whānau in this area has a similar story to tell.

I had a ratshit upbringing
when it came to education.
Part of the wanting to become a teacher
is hoping that [Māori] kids get the same deal
as everyone else
because we were kind of
"that lot in the corner –
you stay there".
And these ones here were taught
and the ones that used
to get taught

were all the farmers' kids.
We were good at maths –
we shone at maths –
but we still weren't asked
to stand up and do it.
There'd be nine or ten of us
in the corner
waiting …
     Mere

Mere's story has its roots firmly in the effects of colonisation, historical trauma and assimilationist educational policies (Bishop & Glynn, 1999; Pihama et al., 2014; Reid et al., 2014). Imagine the pain for a young girl, knowing the answers, knowing she could do the maths, but being chronically ignored. And it was the children of the people who now farmed land that had been confiscated from her people who were the privileged ones, the ones nurtured, attended to and *"taught"*. Mere said that while she and her friends were encouraged to excel on the sports field, academically they were left to learn by watching rather than through engagement with the teacher. Not only that, but her identity as Māori was bleached when her name was changed by the school to an English one, one the teachers could pronounce. That name change followed her to High School, to University, and even on to the official documentation of her passport.

I couldn't get a passport unless
I had my Pākehā name that I didn't have
so "Sally's" still on there
it's on there
and it's not even my name
given at birth …
So just coming through
the system like that –
through the education system –

everything wasn't fair.

It wasn't fair …

> *Mere*

Mere and her friends' experiences are materialised enactments of the racist assumptions alive in the so-called 'egalitarian' NZ of the time. It is only in later life that Mere and her friends have been able to name this treatment as blatant racism.

I didn't know that was racism

us sitting there by ourselves

and being taught by ourselves

by just listening –

I didn't know those things back then -

like now I know what it is.

My friends that were part of that

being pushed aside –

yeah – it's blatant racism to them.

And they're very pro-active about it

and they're very sad

and very hurt about what happened

to us back then …

And I say

"What we need to do now is not let it happen again"

And that's my inspiration

for coming into the school and

making sure that our tamariki

get the same education

as everybody else.

> *Mere*

Barad (2007) says "phenomena are material entanglements that 'extend' across different spaces and times … neither the past nor the future is ever closed" (p. 383). The actions Mere and her friends experienced in their

primary school classroom reverberate in their effects today. For Mere's friends, sadness and anger are still active. For Mere, the injustice of what happened moves her to take action as a teacher, to *"not let it happen again".* Her own pain and positioning on the outside of education, and its consequent effect on her life, motivate and inspire in her a passionate desire to educate the *"tamariki".* Now, every day that she meets with her students in class, what happened in her childhood is a powerful force shaping her actions.

I push.
I'm pushing them to do better
than they think they are
because they can do anything
that they want
if they put their mind to it.
        Mere

Matter and meaning inextricably fuse (Barad, 2010) as Mere's body shifts through time and space, from the ignored edges of a room in a school to a central place in a room, in a school community. The vibrating effects of racist practices become a force energising moves for change and justice, driving the imperative that Mere brings to her class that her students *"can do anything".*

This is a community where the negative effects of colonisation, land confiscation and historical trauma (Pihama et al., 2014; Reid et al., 2014) are still materialised in the lives of Māori. Like much of Aotearoa New Zealand, it is a place where Māori are over-represented in statistics of poor health outcomes, incarceration, and lower educational achievement. It is a place where poverty is lived everyday (Bishop, 2012; Reid et al., 2014). Barad teaches us that in the dis/jointedness of time and space, the here-there and the now-then are entangled together. "Scenes never rest, but are reconfigured within, dispersed across, and threaded through one another" (2010, p. 240). In the in-between hyphenated bi-cultural space of

this school, events do not stay tucked away in the dim reaches of history, they remain active, diffracted through unfolding present-moments.

Poverty and isolation

Experiences of living on the 'edges' are not confined to today's adults. Marginalisation resulting from rural isolation and poverty continue to play out in the lives of the young people at school. Hana noted:

I mean it's great that we have the WiFi

but I think maybe there was an assumption

that more children may have their own phones.

And some do - but not all of them are smartphones …

and I've got students who just simply

don't have a tablet or a device.

Some of our Māori kids

don't all have access to devices.

And also - they live in areas

where they don't have WiFi.

They live in remote areas

where there is no Telecom connection

for their family home –

so they haven't had the need for the resource –

and so ... so there are kids outside of that box.

    Hana

Assumptions can be dangerous things. In following the "*great*" idea of connecting to WiFi and encouraging students to bring their own devices, the implications for some students were not fully attended to. Hana noted that lacking a device or connection to the internet hinders the learning opportunities for some Māori students. These students are unable to complete assessments at home, and while they have access to the school computers at lunchtimes that is not a fair or viable remedy.

Not all kids want to
spend their lunchtime inside –
they want to go out and run around
and eat their lunch.
So it does limit them
and they're not as savvy.
        Hana

The introduction of new technology brings with it an unforeseen layer of complexity as these students struggle to keep up in the technological future-focused push of the school. The school, in doing its best to keep abreast with moves for 21ˢᵗ century learning, has unwittingly abetted the marginalising practices begun in 19ᵗʰ and 20ᵗʰ century education. And so, another generation of economically poor, rurally isolated, Māori students find themselves on the edges of educational practice.

It's got me thinking - why?

Tai told a story that illustrated the more subtle and corrosive effects of colonisation. His telling spoke of both frustration and pain as he became aware of an intangible obstruction limiting many young people from this area.

I'm a huge advocate –
a believer in the talent of the gene pool
of this local community –
this school has talented kids.
I'm thinking of sports at the moment.
But it always sort of occurred to me
that not many of them
have gone on –
given all their talent and like -
very few of them make it to the top.
        Tai

Tai then compared his observations at this school, with what he had noticed when teaching at a well-resourced *"big flash school"* in Auckland. He noted, that in the city although a general physical education lesson didn't have the talent of his current school*,* many of those city students still went on to *"do something of note in sport"*.

And so it's got me thinking - why?
Why - cos you know I always had this belief
that you take talent –
you put it with good coaching,
preparation - you work it –
and Boom –
you get a lovely result -
and it's a lot more tricky than that ...
And I look back and I think –
well what did those kids have?
What did they have that
these kids haven't got
and that's one key thing.
Confidence. Self-confidence.
Sounds so simple but it's
so vital to everything - yeah.
       Tai

Confidence. *"It sounds so simple".* What was it that those students in Auckland had, besides being well resourced? It could be concluded that the Auckland students were fulfilling the vision of the NZC, 'seizing opportunities that were offered to them', 'confident and connected' (Ministry of Education, 2007, p. 8), they were able to *"go on and do something of note".* And yet here in this school, with some remarkable exceptions, Tai's experience has been that *"good coaching"* and *"preparation"* hadn't been enough for many talented students to fulfil their sporting potential. A degradation, a whittling away of confidence, is one social and psychological effect noted by Reid et al. (2014) when

indigenous people are displaced from their land. "Their social status drops, they lose confidence in society and themselves, and they experience feelings of injustice and deepened vulnerability" (2014, p. 523).

Concealed from view in individualised discourses of sporting heroism and self-assurance, the on-going effect of dispossession from communal ancestral land is not immediately apparent. As Tai says, *"it's a lot more tricky than that".* A lack of confidence may well be influenced by an entwining of other factors such as a lack of material resources and the need to travel long distances to engage in high-level competition. However, for Māori students in this community their sense of themselves is inseparable from their whakapapa and history. Any unpacking of the quality of confidence and how a "can do attitude" (Ministry of Education, 2007, p. 12) may be fostered in these students, needs to extend to understandings of the self as relationally constituted, and account for the on-going insidious effects of past injustice.

The above stories told by Tai, Hana and Mere give a glimpse of some of the on-going effects of colonisation such as the cumulative effects of displacement from the land, the loss of means of production as well as "enduring loss at a spiritual, personal and community level" (Reid et al., 2014, p. 522) that are currently being lived in this community. While the glaring discriminatory practices of Mere's generation may have been checked, and despite the gains made by Kaupapa Māori initiatives and the Māori renaissance movement, forces of racism are still active in shaping the society we live in today. In a bi-cultural school there is no room for complacency.

Embedded in this place

I asked Tai how important his cultural roots were to his work in the place of the school. As he spoke, the cadence of Tai's voice changed as it took on a deeper tone and a rhythm, and the felt affect of the conversation shifted

to a pulling of the heart. In that moment of speaking, Tai drew on something bigger than the boundaries of his physical body.

It's huge …
When I say I'm from this place
I mean Te Awa.
I'm talking about Te Awa principally.
My Māori side - family.
And so - those hills - that whenua -
is where I come from.
I'm connected to that.
I'll get buried in the hole
up on our urupā
at our marae
when it's all said and done.
And the young ones now at the marae –
some of them who come here –
will be the ones who dig my hole
and some of them will cook the hāngī
so everyone who comes
and says "Goodbye, Tai"
can have a feed.
So that's how connected I am to this place.
So - yeah - how do I bring that in here.
I bring the hopes and the aspirations
of the people of where I'm from to my job.
I represent that.
I try and advocate for that.
I try and do everything I can
knowing what I know about
the people from where I'm from -
what they're after for their kids –
what they want for their kids.
And - you know - I see those people –

and I'm going to see those people

for the rest of my life

regardless of whether I'm teaching here –

and so I have a responsibility to that …

I bring that connection to the place,

the people of the land –

to my role and I feel like it's a kaupapa

that I have a responsibility

to do my best for them

     Tai

As an embodied pedagogy of place, Tai's kōrero of his entanglement with the land, the whenua, the people and place of his belonging brings with it a lived ethical ontology. In a folding, en-folding, re-folding river of lived relationality, Tai and the children of *"this place"* are linked before, in and beyond the positions of student and teacher. The students Tai teaches now may well be the ones who dig his grave and *"cook the hangi"* when he dies and is buried. Who and what Tai brings to his work, is an on-going co-production with the land and its people, relationships he will be engaged in all his life and beyond, in death. Tai—as a teacher—cannot be separated from the place or the people he is from, as the whakatauki says: *Ko au te awa—ko te awa ko au. I am the river and the river is me.*

Entwined as he is with his people, his land, Tai's intra-connected self expands far beyond his employment as teacher as he carries the *"hopes and aspirations"* of his people into the place of the school. Aspiration, an "inextricable intertwining of place, time and matter" (Somerville, 2013) flows through Tai melding into and becoming part of the body of the school, bringing with it a responsibility, a commitment and obligation to his people/land (A. Macfarlane et al., 2008).

It's a good responsibility

because people before me did it.

You know when I'm talking

about the people from where I'm from

and what I bring - who I am –

my koro - other teachers,

other people have been rowing that waka –

now it's my turn …

but it's bigger than me ....

but I have a role in it

and I've been at a few things –

a few hui where people –

my people –

have spoken to me and kind of like - affirmed –

given me their backing I suppose –

in some way shape or form –

which I find very humbling

when it's happening.

And so that's nice to know

they've got my back or

they're saying yeah go –

do it man - go –

we'll support you.

      Tai

When Tai stepped into a teaching position in the school, he stepped into a wide flow of relational intra-connectivity, taking up a place that had been inhabited by others before him. As he goes about his working day, he takes with him a sense of where he fits in an on-going commitment to the aspirations of his people. Tai knows "*who he is*" and "*where he comes from*" (Mere) and also where he and his community are reaching for. Tai not only brings the hopes and aspirations of his people into the school, he also carries their trust. They've *"given me their backing ... It's a good responsibility".*

Mere too spoke of weaving between the community and the school. She represents her people in the school and does the same for the school in the community.

I can go to the boss and say
"Look this is not fair and I don't like it"
and he listens
and I say to him -
"This is what it's about –
it's about me having to go back
to the community
and telling my people –
the community out there –
the parents of our kids –
"Ohh look this is what we've been doing."
and I can say to them
"Our kura takes pride
in awhi-ing our tamariki
through supporting them in their classes
and extra-curricular activities and funding."
My community loves it.
I love telling my whānau
and my community –
even if it's at tangihana -
I know that always somebody goes
"Hello Miss Teacher"
and I go "Kia ora"
and they go "How's our tamariki?"
Well – I always give positive feedback
to the community because I tell you –
you get all the supports
through that way.
      Mere

Entangled in the multiplicity of Mere's being in the world are her selves as a Māori teacher woven into community, and Māori from her community woven into the school. She is both at the same time. Mere carries her community into the school with her and gives them voice—*"my people"*. She carries the school with her as she lives her life in the wider community, and gives the school voice—*"our kura"*. She is a strong advocate for each in the other's settings, opening space for each to know the other in different and productive ways.

As Mere and Tai have spoken about their intertwined being in community and place, the arbitrary separation of school and community fades. The school as a site of learning becomes entangled with and through them into the community, and the community's hopes for their children become entangled in the school. People who in years gone by were kept "*to the side of the classroom*" (Mere)*,* are now very much **in** the room as the school, the students, the teachers and the community intra-actively enfold and unfold together.

Breathing communities

Hana spoke about the living connections that take shape in embodied cultural practices supported by the school. She talked specifically about a roopū within the school whose kaupapa for many years has been to promote Māori achievement and Māori cultural practices within the school community. At any one time, through opting to be placed in particular form classes, up to a quarter of the student body belongs to this pastoral-cultural grouping.

We're teaching waiata –
we're teaching karakia –
we're teaching tikanga –
which is all to do with our culture.
> *Hana*

Hana commented, "*We have to fulfil a role in the school and in the community".* One of the contributions this group makes is to reciprocate

support to people who have been involved with the school in various ways. They do this by representing the school at tangi, or at particular community ceremonial events such as the annual ANZAC service. This group also play an important role within the school, ensuring tikanga and protocols are appropriately followed at formal functions and events.

And so by learning the songs
and by learning karakia
that's just an extension of who they are
so that hopefully as they grow older
they'll say "Well – I'm going to the tangi –
I'm going to support"
and that becomes just
a part of their make-up
and who they are –
what they do.
     Hana

There is breathing to this learning-in-action **as Māori**. An inhalation of learning for the students that draws in and connects them to the knowledge of generations, and an exhalation of practice and performance that breathes out and connects to the wider living community. These students are participating and contributing in performances of lively affective materiality (Jones & Hoskins, 2013) through kapahaka and waiata, and through attending tangihanga. These are affective embodied practices of community, of relationship performed as connection to past-present-future.

Hana explained how the teachers are careful to balance the students' academic needs with calls on the group to tautoko (support) the community. And because they have a large pool of students to call on, teachers and older students are able to *"train younger ones up"* to lead the group when senior students are busy with study and exams in the final term of the year. The formation of the group creates a braiding-together in

the transient flow of student bodies through the community of the high school. While thickening connections in the space/place of the school, it also strengthens existing links with the wider community, traversing and melting boundaries in acts of shared relationality and responsibility to the other.

As an example Hana talked about the close relationship the school has built with the local wānanga (university). She noted that the wānanga has provided sponsorship and human and material assistance with "*everything down to plants for the stage*" for events such as kapahaka and Manu Kōrero. When the wānanga held their graduation march through town, Hana and her colleagues took along a large group of students to sing and haka their support in return. "The wānanga is the community; it represents the dreams and aspirations of the Māori community/iwi" (G. Smith et al., 2012, p. 16). In joining together in mutual support, the dreams and aspirations of the school and the wānanga circle together in a wider enactment of community celebration.

Of course we have ex-students graduating –
and there's generally a few each year now coming through …
some of them took photos
with their family members
that had graduated –
and seeing people in their gowns and that –
it was a neat thing …
and they came back buzzing.
A few of them carried on
and actually went in
to watch their family members
graduate fully in the big ceremony.
I think we have a responsibility
to teach them to be able to support these activities …
so that in their future they will be participants as well.
It's good to be seen in the community

and it's good to ... yeah to have that ... have that face.
There's a long tradition here.

> *Hana*

At the same time that these students are witnessed in the wider community participating in authentic place-based learning (A. Macfarlane et al., 2008), the embodied materiality of taking part in the noisy, joyful celebration of the graduation march filled them with enthusiasm. The celebration of achievement, the pride of seeing family members go through the formal graduation ceremony engulfed them in an affectively shared communal mo(ve)ment. Potential lines of flight emerge for these students as the possibility of themselves or their friends crossing the territory from high school to university is opened up through witnessing that possibility materialised in the bodies of whānau. As Barad says "meaning is made possible through material practices" (2007, p. 148), and the material practice of supporting the wānanga actualised the meaning of their lives **as Māori** in this community. In this story, that meaning was a celebration that being Māori is being successful, hard-working, learning, and achieving.

Hana's story calls attention to the cultural strengths and vitality being lived in the place of the school and community. Stories of disadvantage, marginalisation and poor social outcomes are not the only stories for Māori to tell. There are also stories of soaring achievement, rich cultural heritage and creative zest in this community. Overlapping stories of all kinds flourish in this place.

Pushing back - deliberate acts of inclusion

Mere, Nikau, and Hana talked about ways they bring whakaaro Māori into the classroom through deliberate acts of teaching. Their efforts may be seen as everyday political acts that not only engage Māori learning as Māori, but push back against the flow of mainstream NZ schooling as a purely "colonial enterprise" (Pacini-Ketchabaw, 2012, p. 304). In this

district, many students have been raised in whānau where mātauranga Māori is richly present in their daily lives, and Mere purposefully calls on these students in her class to share their knowledge.

We've got a waiata
"Engari te tītī"
and it's about the tītī and the kiwi
and where the kiwi lays its egg
underneath the tawai tree …
It's a knowledge that they've been brought up with
they've grown up with
and they've just imparted for us all to know …
The kids are just contributing
their knowledge to everybody
and taking it from a different source –
it's from themselves.
    Mere

Remembering Mere's own her-story of being physically sidelined in her learning brings an additive energy and force to her positioning these students as holders of expert knowledge. Each act of speaking "*things Māori*" (Nikau) engages an "entangled web of histories" (Pacini-Ketchabaw, 2012, p. 313), as layers of experience, lore, practice, and meaning-making are brought forward into the present and made available for the future. Mātauranga, knowledge of the world, is held in the intra-related inseparable onto-epistemological layering of connections built through whakapapa (Swann, Swann, & Crocket, 2017; Taonui, 2015), sung in waiata, told in pūrākau and whakatauki, and tended to in tikanga and karakia. When they speak particular mātauranga these students are performing themselves **as** Māori, as Bishop, Berryman, and Wearmouth (2014) advocated. Their connection to the land, to animals, to tīpuna, is made known and legitimate and—in a post-colonial practice—their voices are honoured and valued. For all students in Mere's class, what new ways

of being in the world are made possible when knowing and thinking from te ao Māori is available?

Hana and Mere both spoke about saying karakia at the start of a lesson. Hana explained it as a quietening activity, *"it quietens them down—that little bit of respect, reverence",* as well as training for the future *"where they might go and have to do karakia, or know how to behave during this time".* "Doing karakia" is both (per)formative and instructive. Students experience a bodily change of state as a quieter calming demeanour is invoked, and learn expected ways to conduct themselves in the community. Both are valuable lessons in caring for themselves and participating with others. Mere gave an even wider perspective, revealing entangled histories as she described karakia as an engagement with previous generations.

Everything we do
you have to look back
We have to talk about what
happened back in the past
with my tīpuna –
Saying karakia.
I say – "Well it's about
our High School
and us being here
and us coming in together –
this is about all of us –
we're all coming in to this.
  Mere

In recognising the entanglement of the past in the crafting of the present moment, Mere explained that saying karakia together acts as a constitutive relational force, joining participants in community and partnership together in a past-present-future spacetime moment of mattering.

Nikau described deliberately speaking Te Reo in his classes to promote Māori language and knowledge, and to introduce other ways of thinking.

I use a lot of Māori in class –
and a lot of that is for the sake of the language –
but it's also the thinking.
Māori were pretty awesome in a lot of things.
It's a different kind of knowledge
and something that shouldn't be lost sight of –
and it's relevant and useful.
It's accessible for the kids –
and then hopefully –
to try by osmosis almost –
to instil in Māori students
a greater sense of pride and legitimacy.
Because those things
have been severely marginalised –
it's just a good thing to push back with.
To try and create those positive hooks
to kids that might be on the edge –
to realise that there's a
helluva lot of value in Māori things.
    Nikau

By speaking and thinking with Māori knowledge, Nikau takes a political stance that resists the dominating forces of Western ways of knowing. Deliberately drawing on Māori ways of thinking does more than lift specific mātauranga from the position of a subjugated knowledge in mainstream education. Māori knowledge brings with it particular ways of seeing and being in the world. **The way** we think things, **the way** we make meaning is as significant in the shaping of the world we live in as **what** we think and make meaning about. Haraway says "It matters which ideas we think other ideas with" (2016, p. 14), as **thinking** practices lead to **mattering** practices, and therefore what comes to be formed and take shape in the

world. Thought practices (Davies, 2018) carry with them histories and values, bringing forward new and/or different knowledge and understandings of the world. And so, as Nikau deliberately forwards mātauranga Māori, new-established-different ways of thinking, different kinds of knowledge, bounce against and diffract with established-Western ways of thinking and knowing. New possibilities for being in/with the world become more accessible to his students, broadening available ways for them to participate and contribute in the world.

Connection, care, responsibility

Mere, Nikau, Hana and Tai's stories, told above, illustrate ways they live **as Māori** every day in the 'hyphenated' space of the school. I asked each of them if there were particular whakaaro Māori values and practices that enriched their understandings of the KCs. They spoke of whakawhānaungatanga and manaakitanga as ways of being and relating in the world that infuse their day-to-day teaching. Whakawhānaungatanga and manaakitatanga stem from an abiding respect for the connectedness—the intra-action—of all beings and understandings of the self as always a self-in-relation to others.

> Māori offers modes of being (subjectivities), including ways of relating and interacting marked by responsibility for others … every Māori account of the world is told through whakapapa (genealogies)—in terms of a relation, encounter or struggle between differences. All is produced through engagement—we come into being not as autonomous entities, but as always already in, or as relations. This recognition of our antecedent relationality is the source of a primary Māori ethic of *responsibility* and *obligation* to others. (Hoskins, 2012, p. 90)

This section explores the diffractive patterns that emerge when these strongly held cultural values and practices are realised in the materiality of teaching practice.

Whakawhanuangatanga—building connections

Mere pointed to the high value she places on building connections—on whakawhānaungatanga—when she told that the first thing she does with new Year 9 students is mihimihi, a relational practice of sharing information about herself and where she's from, which is then reciprocated by the students.

So the first thing you do
is make yourself known -
who you are
where you come from
what you do
where you've been.
And then out of that
comes their mihimihi –
where they've been
who they are …
and most of them will be thinking
"Oh - do you know my Nan?"
those connections make them feel
part of the school
It's about knowing each other –
because that's what mihimihi is
letting them know about you …
The first thing they're thinking
of is individual thinking
"Gosh – what am I going to say now?"
Once they hear
who the people are in the class
making connections
that's thinking as a group …
Thinking is not just individual
it can be a group
next minute we've got the whole class

thinking the same whakaaro
we've got a mihi
got ourselves known
  Mere

As Mere and her students connect in relationship and in thinking together, each self is invited to extend beyond its body and connect through history, place and relationship. Thinking becomes a communal venture. As the class become "*known"* to each other they are joining together, thinking the same "*whakaaro"*. In Mere's classroom, mihimihi as a practice of knowing about, speaking about and connecting with the other is a vigorous and hard-working performance of all the KCs. Sitting within the practice of whakawhaungatanga, mihimihi brings into conversation knowledge about place and belonging—*"where I'm from";* relationships—*"Do you know my Nan?", "Oh—you're so and so's relation";* and history. Immediately the newly forming relationship is peopled and placed with abundant reciprocal knowledge. This entails an expansive openness to the other; where what I might know about you and let you know about me, bring the people, history and relationships of "*who I am"* and "*where I come from"* into the conversation. Onto-epistemologies—being and knowing—are embodied and enacted in mihimihi as mutually performative acts, as relational webs that connect and form each person are made visible, so *I* may know the shape of my fitting together with *you* and how *we* mesh together.

Mere *wants* her students to know about her. The force of whakaaro Māori pushes against a professional discourse that seeks to separate personal and professional lives, and instead actively seeks ways for Mere and her students to join together. In this act Mere's becoming-with her students stretches across other places and relationships—home, town, family, waka, maunga, awa, iwi. In speaking mihimihi in the classroom, relational connections are multi-lateral, reaching from student to student as well as student to teacher, and rippling beyond the bodies physically present in the room. The purposeful act of mihimihi both creates and makes visible a relational web.

Whakapapa

The oration of whakapapa is a part of how mihimihi works. The way Tai spoke about whakapapa points to it as the basis of his identity—his sense of himself as Māori.

Well whakapapa is such a big thing –
your whakapapa –
who you are –
and that's because of being
of an indigenous culture to this land –
where I have a right to stand.
This is where I get my mana from ...
this is my place to stand.
That sense of who I am
and who I connect to
is pretty big to Māori.
Whakapapa will open doors
for you in the Māori world.
     Tai

Tai's whakapapa places him in and of "*this land*". His sense of who he is derives from whakapapa. Whakapapa can "*open doors*" in the Māori world. Whakapapa carries agency—it speaks and acts for a person—situating them as "*who they are, where they come from*" (Mere) and creating opportunities through the connections made. And at the same time that relationships are made known through reciting whakapapa, other knowledge is also revealed.

When a boy mentions his name
we're able to relate
to that boy's whakapapa
and attached to that is the tikanga or protocols
of that iwi or hapu to that boy.
     Mere

This knowledge is not always available. Later Mere talked about the sadness she feels when she meets students who come into the school who know little of their whakapapa and connections. As she and her colleagues inquire with these and other students, they are keeping a record, a map of connection of different marae, hapu and iwi to which they can refer when working to help other young people make those connections.

I know we're learning quite a bit in our Māori department
because we get all these kids
from diverse tribes –
different areas
and I'm recording everything.
It's right back to the mihimihi part
I hate it when the poor kids
come from somewhere
and they don't know who they are
or where they come from
who their whānau is
what their awa is
and so I can say "Oh – I do!"
     Mere

In a material⇔discursive mattering of what comes to matter, Mere and her colleague's inscribing/recording of whakapapa serves to connect bodies, histories, places and practices. For young people who are disconnected from their cultural roots, knowing **where** to fit and connect to others nourishes their sense belonging in te ao Māori (see P. Gay & Kotzé, 2017), and opens possibilities for them to live **as Māori**.

Whakawhānaungatanga

Whakawhānaungatanga is referenced in the development of culturally safe and responsive pedagogy in Aotearoa New Zealand (Berryman et al., 2017; Berryman & Eley, 2017b; Bishop & Glynn, 1999; Bishop, Ladwig, & Berryman, 2014; Cavanagh et al., 2012; A. Macfarlane et al., 2007). Its

practice is included as an expected cultural competency for teachers of Māori learners (Ministry of Education, 2011), and the Education Review Office refer to it in the context of schools developing educationally powerful connections with parents and whānau (Education Review Office, 2015). It is recognised as a central practice in establishing, building and maintaining relationships in educational settings.

> *Whakawhaungatanga* is one of those words that has multiple meanings. It means connecting, establishing your identity in relation to others, a process of finding common ground. It means you belong. It provides grounding, safety and reassurance. … Whānaungatanga is like breathing; the need to connect with people and to understand where they come from, what their history is, who their connections are, and how they function in the world. Until I understand where you come from, your history and connections, and how you function in the world, I cannot know who I am in relation to you. (Kidd, 2015, p. 135)

Sitting within the practice of whānaungatanga are understandings of the self that move beyond the notion of self as a singular individualised subject. Rather the self is conceived as always already being-in-relation to others. There are strong resonances with the notion of the self as both emergent (Davies, 2014), and becoming-with others (Deleuze & Guattari, 1980/1987). The self is always composed in relationship with others, and in the process of that intra-acting, the on-going becoming self emerges and is known "bringing forth the world in its specificity, including ourselves" (Barad, 2007, p. 353). Kidd (as quoted above) can only know herself-in-relation to you/me when she knows about you/me.

Whānau

Mere described how the process of engaging in mihimihi—of reciting whakapapa and building whānaungatanga together—produces a new collective relationship in the class.

Once we finish the whakawhānaungatanga –

the mihimihi -

we become a whānau.

We become a whānau –

and I let them know that too.

and then by saying that to them -

being open like that

also invites more conversations

and then the learning starts happening.

     Mere

Integral to the concept of whakawhānaungatanga, are strong discourses and understandings of whānau. Traditionally, whānau—family in kinship relationship—brings with it a network of understanding around belonging to a communal group and ways of being/becoming that enact responsibility and obligation to the group (Bishop, Ladwig, et al., 2014). Giving relationships the central place in his teaching practice, Tai quoted the well-known whakatauki Te Pā Harakeke.

We're in the people business – schools

I've clarified in my own mind

what it is that I do –

what I'm about –

and what's most important –

and if I have to narrow it all down

to the most basic –

"It is people. It is people. It is people"…

Relationships are at the centre of it all.

People, people, people.

Between all people within the school environment.

That key competency is the foundation upon

which great things can be built!

     Tai

Pihama et al. (2015) quote the same whakatauki to illustrate whānau as a site of well-being:

> Hutia te rito o te harakeke
> Kei hea te kōmako e kō
> Kī mai koe ki a atua
> Māku e kī atu
> He tāngata, he tāngata, he tāngata
>
> Pluck the centre shoot from the flax bush
> Where will the Bellbird sing?
> You ask me
> What is the most important thing in the world
> I will say
> It is people, it is people, it is people
> (p. 252)

Te Pā Harakeke "has served for many generations of Māori as an expression of the importance of healthy human relations" (Pihama et al., 2015, p. 252), with caring, nurturing and protecting the young seen as integral to growing flourishing relationships in the world. Harakeke is the flax bush, and the centre shoot (te rito) of the bush is surrounded and nurtured by "a protective mechanism of whānau. It is a total environment in which, Māori assert, the past stands as a resource to sustain the current and future generations" (Pihama et al., 2015, p. 253).

A whānaungatanga-wide interpretation of *"all people"* (Tai) points to the importance of not just the teacher⇔student relationship, but all human intra-actions that connect within the sphere of the school, including those who already figured in the whakapapa of the school, and those who are yet to come. Teachers establishing caring whānau-shaped relationships in the classroom not only fits with understandings gained from kaupapa Māori research, but also with Western analyses of the socio-cultural nature of learning (Bishop, Ladwig, et al., 2014). The movement of

becoming-whānau together that both Mere and Tai spoke of is "one of the compelling forces that support the development of effective curriculum and pedagogy for Māori" (A. Macfarlane et al., 2008, p. 115). Learning is situated not only within the boundaries of the school, it is within relational practices that extend into the community of interlinked whānau and history and future.

Whānau - the concept of whānau –
Yep - whānau's a big one …
all those sorts of things come into whānau.
I mean part of being a parent
within the whānau or
a leader within the whānau is
to have empathy
and to be the bigger person all the time …
well also as a teacher –
it's about care isn't it –
and care doesn't have to come out soft.
care takes a lot of forms –
you're responsive to what's happening
and you think carefully about
how you're going to react …
I would like to think that all teachers
come in with that mindset of
"I'm here to help the young ones".
It's that simple - I'm here to help the kids.
        Tai

"*Care takes lots of forms":* whānau is all about care, protecting and nourishing future generations. Practising the "*care*" that Tai talked about is aroha-in-action. Aroha is an expression of unconditional concern and ethical responsibility towards others (Hoskins, 2012), and a "binding" connecting force (A. Macfarlane et al., 2008) in ethical relational practice. In her paper bringing together Māori cultural ethics with Levinas' ethics of

infinite responsibility for the Other, Hoskins notes that extending aroha is a recognition of the mana of another, as a "prerequisite for the possibility of any productive social or political alliance" and "does not depend on being returned or acknowledged" (Hoskins, 2012, p. 91). Aroha is also a driving force in the practice of manaakitanga.

Manaakitanga

When I think of the key competencies
it speaks to me in terms
of the level of care we bring to our job.
Operating from a key competency perspective
requires care.
A whole lotta care.
    Tai

Tai and Nikau both named manaakitanga and care as key relational practices, and both related it directly to the KCs. They spoke about care, love and kindness as an integral part of an effective teaching practice and something they aim to foster both in themselves and in their students.

Being kind is actually about
what being a decent human being is about –
it makes you feel good.
    Nikau

Manaakitanga may be translated as doing care and respect in the context of relational practice. Often used in reference to hospitality and caring for guests, extending manaakitanga to others is a performance of aroha. For Mere growing up, manaakitanga was a living breathing embodiment of cultural values and was woven through not just hospitality to strangers, but also lodged firmly in whānau and friendship relationships.

Because growing up
manaaki te tangata manaaki tāngata –

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you see it,

hear it,

breathe it,

live it in our whare

in my culture

because that's number one …

And yep – the manaakitanga

with the group of friends that I've got …

if anything happens to one of my friends

we go and do the manaakitanga thing,

awhiawhi the whānau.

We're just a good group of whānau.

we're all whānau.

> *Mere*

Mere points to the dense relational web of care meshed with responsibility and obligation that practices of manaakitanga entail in her whānau. Bringing such tightly knit practices into the place of the school weaves a class of students and teacher into a school-based whānau, bringing expectations of care and responsibility with it. Tai returned to the concept of care several times during our conversation. His hope was that teachers would share with him the strong desire to care for their students. For him, the force of care/love/aroha flows through teachers and the whānau of the school.

Again it's that looking at yourself –

"Do I have that in me?

Do I care?

Do I really care about these kids?"…

I would hope that most teachers

would be willing to go there

and think about those things

and ask themselves those questions.

> *Tai*

Tai's challenge refers to an authenticity and integrity of relational practice that is open to genuine caring, to aroha or love in one of its many forms. Deleuze says of the concept of love, that it is an "encounter with another that opens us up to a possible world" (cited in Colebrook, 2002, p. 17). Tai's unremitting call for teachers to **care** evokes that capacity to encounter others with openness. "Aroha refers to the manner of responding positively to the *hā* (essence) of people by accepting their individuality, together with their *whānau* connections, their strengths and their self worth" (A. Macfarlane et al., 2008, p. 110). Mere's telling of manaakitanga shows caring as an embodied action, where "*we go and do the manaakitanga thing, awhiawhi the whānau.*" Manaakitanga is an enactment of the cohesive force of care/love/aroha that knits family and community together.

Entangled together in the place of the school

My conversations with Mere, Tai, Nikau and Hana have taught me that in whakaaro Māori, in the embrace of whanau, of whanaungatanga and manaakitanga, relational channels are wide and deep, flowing in many directions. Caring for the whole person—their relationships with self, with others, with the land, with the past and the future—is part of learning together. In whakaaro Māori there **is** a mandate—a relational obligation—to *"go there"* (Tai) with students. To deliberately engage in and with ways that open space for flourishing and growth.

In an interview with Hoskins and Jones, Durie referred to his previous much quoted work where he had submitted that "education should prepare Māori to live as Māori, and to be citizens of the world" (2012, p. 25). Working with and alongside each other, values and practices of whakaaro Māori may sit in conversation with the KCs, shaping the world to come. In the Māori-Pākehā unfolding and everchanging place of this school, the workings of the hyphen open space in which rich explorations of ways of living and becoming may be undertaken.

Mihimihi, whānaungatanga, whakapapa, whānau, manaakitanga, do not directly match the KCs, and in their depth and integration into a cohesive philosophy of being in the world, they far exceed them. Nevertheless, they entangle with the KCs in the hyphen-space of the school. Whakaaro Māori and the KCs are close enough that Mere, Tai, Nikau and Hana were able to notice resonances and speak of their actualisation in practice. As described by Macfarlane et al (2008) and by these teachers, it appears that the KCs may be gathered back up into and folded with Māori ways of being in and understanding the world. And yet there are differences. And these differences are at their widest when the KCs are understood from an individualistic humanist perspective. In the relational ontology of whakaaro Māori, as in posthuman philosophy, the person comes into being/becoming through relationship with human and more-than-human forces, histories, entities. Performances of being/becoming, those acts that may be categorised in the domains of KCs, do not arise within the individual, but in entanglement with others.

Whakawhānaungatana and manaakitanga. Connection and care. Who you are, where you come from, how we meet and fit together, how I care for and respect your mana, all these things are an integral part of collective relationship-forming practices. "Māori never enter into a space of engagement as an individual: who they are and who they are connected to comes into the room with them whether or not they acknowledge it or understand it" (Swann et al., 2017, p. 32). Extending the boundaries of the individualised human self to understandings of communal relations and connections that include the non-human, resonates well with relational-materialist (Hultman & Lenz Taguchi, 2010) onto-epistemo-ethico understandings. The congruence between the co-relational philosophy and knowledge from te ao Māori and relational⇔materialist thinking (Jones & Hoskins, 2013), forms a rich space in which we in Aotearoa/NZ might explore further how we understand and perform the KCs.

Chapter 9: The learning relationship

In this chapter I narrow the focus of inquiry to the teacher⇔student relationship as spoken about in the conversations I had with Mere, Tai, Nikau and Hana. The teacher⇔student relationship has been identified as one critical *ako* context of culturally and relationally responsive pedagogy (Berryman & Eley, 2017a; Bishop, Ladwig, et al., 2014; The University of Waikato, 2018). In this final 'openings' chapter I hover the magnifying lens of inquiry over particular relational moments, picking up threads already examined, as well as a stitching in further examples of whakaaro Māori practices.

While culturally responsive pedagogies urge that **students** are supported to be and learn **as Māori**, in this chapter I also notice how Mere, Nikau, Tai and Hana perform living **as Māori** in students⇔material⇔teacher intra-actions. I weave into my discussion two examples of whakaaro Māori that emerged as "glowing data" (MacLure, 2013b) from our conversations, *kōrero ā kanohi ā tinana* and *maintaining mana*. These two whakaaro were brought forward as vital forces in the materialised performances of relationship. They entwine closely with and illuminate notions of ethical professional practice (Education Council, 2017). They are particularly relevant for the intense work of a secondary school, where learning and performing skilful relationship practices is a daily challenge for many young people.

Through this chapter I consider moments of KC performance and learning diffracted through the stories told to me by these teachers. Consideration of the intra-activity occurring in teacher⇔student relationships casts a wide net and embraces the spacetimemattering of the more-than-human and material—such as place, buildings, technologies—as well as the human. Following the flow of the conversations I had with these teachers, I

focus mainly on the embodied human and discursive elements at play in each story, as values and beliefs become materialised in practice.

In the transition between reading/writing through the wider contextual lens of Chapter 8 and the specificity of teacher⇔student relationships in this chapter, readers of this thesis may notice a shift in tone and in their own embodied response to the writing. This is perhaps indicative of the tensions and complexities Hana, Tai, Nikau and Mere negotiate every day. As professional Māori educators working in an English-medium school, they work with *"a foot in both worlds"* (Tai), stepping between and weaving together the territories of each world. The conversational excerpts and stories of teacher⇔student moments, told in this chapter, were set in motion by my initial research questions about the KCs. Thus, Western educational discourse has a stronger presence in this chapter than the previous, and so a different resonation has been generated. I raise this tonal shift as a movement to notice and ponder, a subtle background refrain to the following stories.

The teacher⇔student relationship as performative assemblage

Before exploring the research material provided by Hana, Tai, Nikau and Mere, I first lay out a theoretical thinking-practice (Davies, 2018) that has emerged as I have read these stories through a relational⇔materialist lens. As it matters what thoughts we think with (Haraway, 2016), I offer this perspective as an apparatus through which to read the research material.

In their call for the development of future-oriented learning practices in New Zealand, Bolstad et al. (2012) suggest creating "schooling around exploring the *connections*—or spaces—*between* people, things and ideas, and *what can happen there* (rather than focusing on the people, things or ideas themselves)" (p.26 italics in original). Exploring the teacher⇔student relationship through the lens of an immanent relationality found in te ao

Māori (Jones & Hoskins, 2016), the philosophy of Deleuze and Guattari (1980/1987) and the posthuman performativity of Barad (2008), open space to consider the possibilities for emergent becoming that are alive in relational in-between spaces.

Thinking with a relational⇔materialist lens expands understandings of learning, beyond occurrences within single bounded individuals, to a learning emerging through the dynamic intra-play of an assemblage. In Baradian terms, teaching and learning arise as performative phenomena from specific causal intra-actions operating in the in-between spaces of dynamic relationality (2008, p. 138). Emerging through tangled, overlapping and intra-acting forces "the subject can no longer be understood as a fixed being but rather **a way** of being" (Hultman & Lenz Taguchi, 2010, p. 532 emphasis added). Teacher and student do not "pre-exist their hybrid materialisations and enactments … but from moment to moment are enacted differently together with things and times in an open-ended manner" (Hohti, 2016, p. 1157).

In the learning-relationship, the teacher and student become-with each other (Deleuze & Guattari, 1980/1987). In a becoming-with each other, teacher and student produce each other, they become-with together. All becomings are understood as interdependent and intertwined and thus without fixed boundaries. Becomings are permeable and porous, in communication and mutually transforming in this relation, but in different ways, with different force, intensity and speed, because each agent has its own different style of becoming (Lenz Taguchi, 2014, p. 82).

A performative understanding of the mutual entailment of teacher⇔student opens space for a de-stabilising and blurring of power relations. This understanding moves towards an engagement with and enactment of the power-sharing relationships propounded by researchers of culturally safe pedagogies. It reaches further than references to reciprocity within the teacher⇔student relationship (Bishop & Glynn, 1999; Ministry of Education, 2009). The term reciprocity implies a discrete

swapping of positionality, a 'give and take' that brings to mind a commercial exchange. In reaching further, I add to the available English lexicon in education by offering the term **mutuality** as a descriptor of the complex performative emergence of both teaching and learning in the learning encounter—becoming-teacher and becoming-student—perhaps both at the same time.

And now to my research materials.

We're teachers of change

While the formation and constitution of a learning-relationship is one of mutability and mutuality influenced by all actors in the assemblage, the influence of the teacher remains a critical force in the formation and trajectory of that assemblage (see Bennett, 2010, p. 38). Mere, Nikau, Hana and Tai reflected on their involvement in the building and maintenance of the learning-relationship.

I need to form a relationship with my kids
so that I can start effecting learning
        Nikau

because we're teachers of change
aren't we.
I hope we are.
        Mere

Both Mere and Nikau come to the learning-relationship with a purpose, to engage with students in such a way that learning or change happens. That is their job. To do this, they bring **themselves** to the intra-personal, intra-subjective relationship that is the teaching/learning endeavour. In many respects, they—in all their multiplicities, their knowledge, values, attitudes, skills, connections and habits of being—are the 'tools of trade'. Tai explained:

The neat thing about being a teacher

is that I get to express who I am

within the parameters of my job ...

We're dealing with young people.

We're dealing with -

potential -

and those relationships are

key to everything that occurs …

So yeah - relationships are

number one to me.

> *Tai*

Working as teachers of change invokes the concept of agency, of action, of doing, of differenciating—becoming-other than who one was before. Barad (in Dolphijn & van der Tuin, 2012) says "the how [of agency] is precisely in the specificity of the particular practices" (p. 54). And it is in the specificity of particular practices that potentials and possibilities for young people—and their teachers—are realised.

Hana gave an example of a quick intra-action with one of her students, in which the learning-relationship stretched the student⇔teacher dyad beyond the classroom to interweave with the student's home-family relationships. In this encounter, both Hana and the student were active agents in extending the learning relationship to include the student's mother as a witness to and entangled with learning.

One of the boys

got 10/10 on his spelling test

and he asked if I would let his Mum know.

So he gave me her number

and I took a photo

and I sent her a text

and just the picture of the 10/10

and all the ticks –

and I said "I just wanted to let you know he got this."

> *Hana*

Sending the text and photo embodied and materialised a triple braiding of whanaungatanga in a realised act of relational weaving (Berryman & Woller, 2013; Bishop, Ladwig, et al., 2014). In the classroom Hana enacted openness and care as she listened to the boy and responded to his request. The boy activated love and caring for his mother, sharing his pride in the 10/10 ticks as marks of achievement. Sending the photo was an act in feeding and nurturing their triple mother⇔boy⇔teacher relationship as the whānau notion of school breathed out and included the mother and the physical space of wherever she was that day, weaving her into the school in a real-time immediacy. In an emergent process, Hana, the boy and his mother, his spelling test, the phones, the photo, the telecommunication system, all intra-acted together to produce something new and nourishing in the service of learning and whanaungatanga. The taking and sharing of the actual photo was an effect of virtual potential being realised in material form (Colebrook, 2002). At the same time, the boy's mother was included as one of *"the people in the school environment"* (Tai) who is valued, thickening the whanaungatanga web of the school environment.

Meaning made mattering

In this section, I examine two examples of whakaaro Māori that influence and inform the specificity of the relational practices of these teachers. They are the practice of *honouring mana* and the value placed on *kōrero ā kanohi ā tinana,* speaking in person with another (see Iti, 2015). As intra-active forces in relational encounters, each gives rise to an embodiment and enactment of care for others (manaakitanga) that builds connection (whanaungatanga). Each practice is a folding-enfolding-unfolding-refolding of the virtual-actual world, as cultural values are realised in actuality, embodying an ethics committed to potentiality and the creation of "a people to come" (Colebrook, 2002, p. 99). The following discussion highlights actions that open space for vibrant possibility and engagement with living for all participants in the learning-relationship.

Honouring Mana

Within te ao Māori the practice of maintaining and honouring mana invokes a spiritual as well as temporal force.

> From Ngā Atua as well as an individual's life force [*maurī*], also comes their power, prestige and authority commonly known as mana. All people, even those who have done wrong, have mana*,* and therefore it is seen as important in Māori society not to punish by punitive means such as exclusion or it will be *takahi i te mana* (trample on the mana of others). (Berryman & Woller, 2013, p. 832 italics added)

Taking care not to trample on the mana of others fulfils an obligation not only to care for others in their daily lives, but to care for their spiritual wellbeing as well. Tai spoke of the power of attending to the mana of the young person by recognising their affective-emotional state, and reflecting it back to them in a way that shows he has some understanding of their current experience.

That whole maintaining mana –
and sometimes for the kids
in the worst situations it can work.
"I know that this is hard for you" or
"I can see that you got upset
when so-and-so said that ..."
and you can see them –
their body language changes.
They're like "Oh whew" –
they breathe out,
they often look up
"Oh, OK, this guy gets it,
this guy gets me"
and then from there you can
tell them what you want to tell them –

and that's power-sharing in a way ...
     Tai

Holding carefully the young person's mana, even if they are in trouble, creates an opening where Tai and the student can move into a place of conversation together. Tai told that the student "*breathes out*", indicating that they have been holding tension in their body and are now able to release it. They "*look up",* relieved from an uncomfortable or distressing emotional state, perhaps feeling *whakamā,* or some other combination of shame, hurt, anger or sadness. Honouring *mana* as Tai describes, clearly includes attending to the affective flows and states—perhaps narrated as emotion (Massumi, 2002b), or perhaps sensed as a bodily feeling—that are present in the moment. This care may require some imagination on the part of the teacher, and an ability to de-centre enough from their own experience to pay careful attention to the young person (Davies, 2014; Heshusius, 1995).

You need to be able to do all those things –
to foster a good relationship.
Yeah - relationship is huge,
people forget what you told them,
forget all sorts of things,
but they never forget the way you made them feel –
there's some kind of saying around that isn't there?
     Tai

Upholding mana is an ethical act that acknowledges a spacetimemattering component in the mix of relational assemblage. If people "*never forget the way you made them feel*", then, in caring for mana now, Tai is caring for the future young person as well as their future student⇔teacher relationship.

Mere gave a different example of maintaining mana.

It's important that we
pronounce our tamariki's name properly
because it could be interpreted differently
and the kōrero or the significance
of that person's name is distorted
if it's not pronounced properly in class …
His mana was probably trampled.
      Mere

"Proper pronunciation" attaches to the spiritual significance of names in te ao Māori, where the linking together of generations of whānau with ancestors and the land is carried and expressed through the bestowal of names. On a more personal sensory level, a mispronunciation of one's name can be experienced as a physical grating, an affective micro-shock of mis-knowing. In contrast, correct (or valiant attempts at correct) pronunciation is likely to be experienced as an act of care for the dignity, the mana, of the person.

Kōrero ā kanohi ā tinana

Within whakaaro Māori, speaking directly with a person—face to face (*kanohi ki te kanohi*)—is highly valued as a relational practice (Iti, 2015). Tai talked with me about the complexities of life young people struggle with in te ao hurihuri (the everchanging world), and pointed to social media as complicating and changing the process of building relationships.

Well it's [technology has] taken away a
lot of the face-to-face –
which at the end of the day is - I believe –
the most important aspect of a relationship.
      Tai

Nesting within Tai's expressed belief in the centrality of relationships to learning, is the primacy of personal embodied *"face-to-face"* contact. Something happens in an embodied encounter that is central to a

relationship. Mere too mentioned the significance of in-person connections and explained this as an old Māori value:

We don't – we'd rather
kōrero ā kanohi ā tinana
because I don't think it's nice
to be spoken of when you're not here.
In the old Māori – the person has to be there –
physically in the space.
If you ask me a question about my koroua
and he's alive – I go
"I think it might be best if you ask my koroua that
because I can give you my interpretation
of what you've just asked me
but my koroua will definitely give you
a different interpretation" –
only because he'd be thinking
in a different way.
Also when somebody talks to you
about anything and it's pono - is it for real?
I'd like to see your eyes and see yeah it's for real
"I did say you're a clown
or you blah blah blah something"
and it's best somehow or other to us –
it makes us feel better that the person
has come in person to
talk about a particular thing –
instead of me surmising what she could have said …
     Mere

But what else might be happening in this person-person encounter? Mimetic resonance has been observed to occur where "viewing facial expressions may trigger similar expressions on one's own face" (Swan & Riley, 2015, p. 222). The act of physically embodying the gestures (even

micro-gestures) and actions of another is a materially performative empathic act. It does not constitute the 'whole' route to empathic connection—which is deeply contextualised in situation, experience and relationship (Swan & Riley, 2015)—but is one thread in the connective rope, the in-between of relationship.

Recent advances in neuroscience point to the realm of the brain and mirror neurons in particular (Ferrari, Bonini, & Fogassi, 2009; Rizzolatti & Craighero, 2004; Sinigaglia & Rizzolatti, 2011):

> [Mirror neurons] fire in our brains when we observe intentional actions performed by others. This is a physical manifestation of inter-relatedness, our very own nerve cells empathically resonate with others by mimicking them. Neuroanatomically, I am what you do. (Weingarten, 2006, p. 3)

The action of mirror neurons goes some way to explaining how affect flows through and between bodies. Our bodies resonate with and mimic the actions and gestures we see happening in other bodies. The firing of mirror neurons activates a felt response that simulates the felt response of the other, opening the route to affective attunement and providing a pathway to understanding the feelings and actions of others (Swan & Riley, 2015).

Tai spoke about the face-to-face conversations he has with students as an opportunity to express and enact care. By showing interest in the young people and their lives both within and outside of school, he enacts *whanaungatanga*, building family-like supportive relationships with them.

It's a level of care too ...
taking the time to
tell them something beyond the
normal interactions around school …
It opens things.

It's a connection - you know –

a human connection …

They'll talk to me.

They open up.

Its a conversation we're having …

they smile,

they laugh,

they're willing to engage with me.

When I see them next time

and they walk past 20-30 metres away

amongst other people between us –

they'll see me

and acknowledge me [raises eyebrows]

and I'll acknowledge them –

and in terms of relationships –

that's pretty huge …

like people acknowledging you –

you know - remembering your name –

things like that.

"How're you doing?"

"How's your day going?"

Quick little interactions - it's important.

　　　　Tai

Tai spoke of gestures and micro-movements as care and concern are 'mattered' together (Dolphijn & van der Tuin, 2012). In small and ordinary (Weingarten, 2004) mo(ve)ments, smiling and laughing together, Tai and his students open to each other, eclipsing and temporarily dissolving hierarchical power relations in mutual affirmation of the other (Heshusius, 1994). Tai described how the links formed in these conversations are retained through everyday interactions, such as the quick chin-tilt and eyebrow flick of recognition passed even at a distance of 20-30 metres and through a sea of other bodies. That embodied gesture is a performative action tending to and nurturing the relationship.

Tai commented on the importance of recognition and acknowledgement of the other in the sustenance of relationship. In that fused recognition of a "*quick interaction*" in the playground—saying hello, remembering a name, gesturing across space—each produces the other-in-relationship. For that moment, Tai is not Tai walking alone in the playground, but Tai⇔playground⇔student. For a micro-moment the relationship is re-established, re-performed, as entangled with the materiality of the school each recognises the presence of the other and the connection they share. In any playground crossing on any day, Tai would engage in a number of these re-configurings of self and student, matterings that thicken the relational threads and web of the school.

Incidental everyday moments

In terms of building relationships with students, both Tai and Nikau highlighted the impact of incidental conversations, *kōrero ā kanohi ki te kanohi* (speaking face to face), they have with students throughout their day. I focus the remainder of this chapter on the vignettes and stories of incidental moments these two men told. Like the Tai⇔student gestures of recognition across the playground, the intra-actions they spoke of are not planned, but arise spontaneously in the day-day busyness of the school as seized moments of relationship building.

I wouldn't walk from the staffroom
to my class any morning
without talking in some way
to at least three or four students -
just little conversations
about all sorts of stuff.
Mostly it's me having them on about something …
　　Nikau

Nikau finds many opportunities in the open spaces of the school to "*have little conversations",* to build relationships, using humour—"*having them on about something"*—as a foundational gambit. Deleuze (1969/1990, p. 145) called humour the art of surfaces and doubles, the co-extensiveness of sense and nonsense, meaning that it plays with what is on the surface of an event as an extensive relational force. This force dissolves individual subjectivities in an experience of shared univocity, in-the-moment cutting across discursively constructed hierarchies and enabling Nikau and the young people to share a moment of connection.

Earlier Tai mentioned "*having a laugh"* as a sign that students were opening to him, and they could engage in a conversation together. As an affective force, humour generates feelings of friendliness and warmth, signalling recognition of the other, and acting as a conduit to "play with and negotiate how we might relate with each other" (K. Crocket, Kotzé, & Flintoff, 2007, p. 39). Humour has been identified by students as a significant and important factor in building relationships with their teachers (A. Macfarlane et al., 2008).

When I think about my day …
most of it's incidental –
catching up with kids –
just bumping into them.
They're not planned conversations …
and these key competencies –
that's always part of it some way shape or form …
Most of it just occurs
through talking to kids
about where they're at
with anything and everything.
        Tai

Taking such a genuine interest is an act of recognition of the other as more than a student. It is an act of care and respect for the young person, and a way of learning with each other.

Both Nikau and Tai were each aware of their discursively held privileged and powerful positions in the school. As they sought to build *whanaungatanga*—to know and support their students—they deliberately developed practices that take heed of power relations (Berryman & Eley, 2017a) and materialise an ethic of care. "An ethic of care is expressed in attending to apparently mundane practices of daily life, for everyday actions constitute self and other" (K. Crocket et al., 2007, p. 30). The following are examples of everyday care in action, ethical practice that shapes the emergence and performance of teacher⇔student in the relationship.

The tuck-shop and the ice-block

Nikau gave an example of an approach to students he had recently adopted that materialises the high value he places on attending to power relations and acts of kindness as relational practice.

What I've started doing –
purely randomly
is whenever I go to the tuck shop –
because the teachers get to go
to the front of the line –
so whoever I just randomly push in front of
I just buy them a 50c ice-block and say
"Choice man. Thanks for letting me in –
and here's your reward."
And a real cool thing happened the other day -
right before me
this boy let another boy in front of him go in first,
and so he got what he wanted and then he went.
And I said to that boy -
who I didn't know -

"I'm going to push in front of you
and this is what I do
when I push in front of someone –
I buy something."
And then I took the time to say
"Look – think about it –
if you hadn't been nice to that other guy
you wouldn't have this opportunity now.
So it's a choice thing you did
and you get an instant reward for it."
He was happy – he was stoked
and he got the point ...
and that kind of stuck out at me as a
purely random thing
that was quite good for –
for reinforcing one of these things.
           Nikau

Nikau's story illustrates one way he goes about engaging in a meaningful and ethical re-configuring of the world by intentionally adopting a particular practise. "Particular possibilities for acting exist at every moment, and these changing possibilities entail a responsibility to intervene in the world's becoming, to contest and rework what matters and what is excluded from mattering" (Barad, 2007, p. 144). As a busy teacher, Nikau may well wish to take up the opportunity of a quick trip to the tuck-shop, and yet he was also uncomfortable with the queue-jump privilege his position brought him and so devised a compensatory act. As Nikau contested the discourse of teacher privilege, mattered in the tuck-shop line through the ordering and waiting of subjected student bodies, he inserted a new materiality, with the intention of counter-acting the imposed disadvantage to students.

Standing on a privileged position to queue-jump may be seen as a bruising act of relational violence. It opens the possibility of producing

resentment in the one 'jumped', not only placing an impediment in relational connection, but also risking damage to the mana of the person jumped. Nikau's solution to this problem was to acknowledge privilege and soften its impact as the ice-block became both a symbol of compensation and a material means—a reward—of compensation. At the same time, Nikau "*thanked*" the student for "*letting him in*", verbally appreciating and recognising the student. By using this strategy, Nikau worked to honour both the student's and his own mana, reducing the potential for harm enabled by his acting on his privileged position.

It was to try and keep that idea of
"I'm not anything special –
there isn't actually any distinction
between us.
You're just as capable as I am –
I'm just older" …
      Nikau

Barad says "it is through specific agential intra-actions that the boundaries and properties of the "components" of phenomena become determinate and that particular embodied concepts become meaningful" (2003, p. 815). In this story Nikau both witnessed kindness enacted by others, and recognised and reinforced it by a kind practice of his own and by speaking about the kindness he witnessed. He also noted that in the unfolding process of noticing, acting and speaking about acts of kindness, that a relationship with a previously unknown student was formed. The actions of giving up space in the line and buying an ice-block thus took on two— intra-related, folded-enfolded—meanings: an embodied act of kindness and embodied relationship-building practice.

In this story, learning about, enacting kindness, and relationship forming occurred simultaneously, entailed together. Through agentic intra-actions in the assemblage, both Nikau and the boy performed themselves as ethical subjects, each enacting a care-for-another kindness.

Viable relationships

Earlier, Tai spoke about caring for the potential of young people as a force in teacher⇔student relationships.

We're dealing with young people.
We're dealing with -
potential -
with people …
        Tai

Tai's use of the word potential may be understood in two ways, as possible futures and as possibilities available in the present moment. Both understandings apply as within relational space every encounter is alive with vibrant potentialities as forces and intensities play out. And every encounter leaves a trace, re-membered somatically and present in future encounters (Massumi, 2002b). The potentiality vibrating within each teacher⇔student moment entails an ethical responsibility of care.

Tai noted how the quality of relational practices affects the viability of the teacher⇔student relationship and the emergence of learning:

If your relationship's not even good enough
for that kid and they're thinking
"Oh - stuff you anyway –
stuff you and your message" and
"I don't like you" or
"you don't rate me" or
"we've got nothing so I'm not going to listen to you"...
        Tai

Tai observed that a student evaluates the relationship by reading the quality of the affective flows and judging the level of esteem or respect flowing between themselves and the teacher. Without experiencing "*liking*" or "*rating*" (honouring mana) the student will withdraw and the viabilty for

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learning to occur will be curtailed. The question of what supports a teacher to embody respect for a student in the face of *"oh - stuff you anyway"* is one of the complexities alive in the relational assemblage.

Tai recognised that at times it's challenging for teachers to continue to engage with students in ways that enact caring.

There's a certain level of resilience
that's needed from staff sometimes
to prove to those kids that
"Yes - I am here for you,
I do have your best interests at heart,
I do care."
      Tai

He indicated that building relationships takes effort. Students don't necessarily immediately accept that the teacher has their *"best interests"* at heart, and this knowledge of the teacher's ethical stance may need repeated encounters and a variety of experiences to form.

Learning when things go awry

In the last section of this chapter, I re-tell stories of relational-moments that illustrate the vulnerability of both the teacher and the student in their encounters. The complex learning-moment is a contested space, in which a myriad of competing forces and intensities play out. And while professional ethics place responsibility for engaging in positive and collaborative learning relationships on the teacher (Education Council, 2017), at times unfolding events make this difficult. In these stories, the movement of affect impacted the students and the teachers, their sense of themselves and the actions that irrupted. None-the-less, opportunities for learning presented themselves in each encounter. I examine these stories in a non-innocent way, diffracting them through the lenses of relational ethics, affects, living as Māori and the KCs.

Robustness in the day-day

In the multiplicity of daily encounters with students, a teacher's emerging sense of self and capacity is also affected by the intra-activity of relational encounters. Nikau gave an example of a colleague (Maddie) speaking to students:

There was a really good example the other day –
I heard Maddie say to one of the students
"You know – before I came here
I was in a bad mood
and I had a really upsetting day.
But the time I've spent with you –
helping you out –
has made me feel a lot better."
    Nikau

By offering her experience to the student in this open way, Maddie acknowledged a vulnerable edge, and at the same time she made visible how one person makes a difference to another. In that moment, the power of the learning-relationship to effect change and transformation was embodied and mutually (re)learned.

Not all encounters with students leave teachers feeling good or satisfied with their actions. Tai said:

It doesn't happen often where
I feel my hackles go up –
but every time I do –
my first reaction with myself is
"I blew it, I blew that" –
whatever occurred,
whatever led to that happening –
I blew it.
I go home and I usually feel quite bad about it,

and I think about it

and often I've had chances to talk to kids the next day –

or I'll pull them back in.

If I feel like that,

if I go home and that's in my gut …

> *Tai*

An intense "sticky affect" (Kofoed & Ringrose, 2012, p. 5) of the encounter, the on-going visceral sense of *"feeling bad"* survives in Tai's gut as a felt dislocation between his values and preferred way of being in the world. The *"bad feeling"* cues Tai to take stock and to reflect on the event and his actions in it*,* acknowledging that violence has been done to the relationship and that mana has been damaged, both the student's and his own. Weingarten (2003a) describes becoming aware of violent events and examining our intra-actions with them as a witnessing process. Prompted by his *"gut"*, Tai consciously witnesses himself in such a way that new thoughts and possibilities are created, affording opportunities to do something new to restore the relationship and honour mana.

I'll always grab the kid again the next day

and start by telling them

"Oh I went home last night

and I just didn't feel good.

I didn't feel good about the way

that conversation went,

and I shouldn't have spoken to you like that.

I shouldn't have spoken to you like that."

… and it always goes well.

They're always cool with it

and they always apologise and

"We cool now?"

"Sweet."

"Choice. See you later.

Have a good day."

In tending to the learning-relationship and to the person of the student by making reparation in this way, Tai is practising competencies of care for himself and for others. It would not be good for his sense of himself—and no doubt his physical wellbeing either—to continue to have the memory of a bad relational moment rumbling around in his gut. Now, he may integrate that memory with a new one, a memory of *"we're cool now"* as both he and the student's mana have been restored through face-face (*kanohi ki te kanohi)* honesty and apology, and their relationship repaired. By re-engaging with the student expressly to tend the relationship, Tai has taken an active and ethical stance in the world's unfolding.

As the student is re-engaged with Tai in an act of restoration, they become witness to and part of Tai's process of self-witnessing and honesty. This experience is then added to their accumulating learning and knowledge about ways to go about living in the world that are *pono*, "showing integrity by acting in ways that are fair, honest, ethical and just" (Education Council, 2017, p. 2). Tai told how students will also apologise when he has gone back to talk with them, their own witnessing of self becomes engaged and a possibility for action is opened to them. The practice of self-witness and apology may then be available for the student at another time and place in their lives. The social and relational learning context of the school has provided both Tai and the student(s) opportunity to develop competencies in relating to self and others.

A blur on the relationship

Nikau told the following story as an example of how learning-relationships can quickly go awry. Following the irruption of the event, the felt dislocation and discomfort impacted on both the student and on Nikau, leaving a *"blur on the relationship"* (Nikau) that at the time of our conversation had yet to be resolved.

I had an example the other day -
this really upset me –

I was taking a relief over in PE

and I was busy doing something –

trying to organise something –

and one of the boys was pestering me

about getting the ball.

I was like

"Yep yep – sweet as – we'll go and do it now."

I got him a ball out.

"Yes, thank you."

"All good".

Came to the end of the class and I had somewhere to go –

"Can you bring the ball back now"

and he mucked around shooting goals,

pretending he didn't hear me –

and it really pissed me off.

And I tried to have the conversation with him

"Hey look – I did this for you,

I went out of my way

to make sure you had what you wanted -

and look you've done this now."

But unfortunately I was still angry

and it came out more of a

"I'm pissed off with you – you're being a dick"

so the next time he came to class

there was still that feeling between us -

I could sense it –

that as soon as I saw him I thought

"Oh – you again"

and he saw me and

I got the feeling he thought

"You again!" as well.

     Nikau

Nikau spoke honestly about the ill-will that was generated and remained between himself and the boy in this encounter. And while the situation remained unresolved, the sticky affects of disappointment and anger remained, cramming their relationship with ill-feeling and interfering with learning.

For teachers, the outlines of this story may feel familiar. The intra-action of unfamiliarity with space, students, subject and the pressure of time, combined with a perceived rudeness from the student, produced an agitation in Nikau's body that came out in the tone of his speech. The next time Nikau and the student met, the possibilities for their emergent capacitation were "bound up with the lived past of the body" (Massumi & McKim, 2009, p. 1). The quality of their difficult exchange, re-membered as a somatic re-play of antagonism and dislike, then became an active force in their current encounter.

Nikau's story points to one of the daily challenges of a teacher's job of being "*in the people business*" (Tai). Nikau suggested that professionally he has a responsibility to restore the relationship.

I think that's the challenge
that teachers face sometimes –
that you've actually
got to put the hand out again –
or you've got to try and manage the situation.
Because it didn't go well
and he really annoyed me
now it's put a bit of a blur on the relationship.
    Nikau

It remains problematic for Nikau to negotiate through his genuine anger at the boy for ignoring his request.

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He basically hadn't acted in a reciprocal manner.
And with Māori as well –
when you think about manaakitanga –
there's a reciprocal obligation
that generates goodwill.
    Nikau

Nikau's—clear to him but unvoiced to the student—expectation or assumption of reciprocal kindness or care in the relationship left him vulnerable and short-tempered when he was already feeling the pressures of time and other tasks to do. As a Māori teacher in the school, Nikau experienced a trampling of mana when the student responded to him in a way that went against a strongly held cultural value.

You haven't always got those kind of reserves available
to deal with things properly –
in a restorative way.
    Nikau

Nikau described a sense that there is a "*proper*" way to deal with conflict in the student⇔teacher relationship, reflecting here the high standards and aspirations of the NZ Education Council Code of Professional Responsibility (2017). The forces and intensities meeting in any assemblage may well at times constrain or limit a teacher's—and/or a student's—capacity to be open and available to respond in the moment in a way they prefer. In a self-witnessing and ethical praxis, there is a dynamic interplay between the desire and commitment to maintain high professional standards of care and responsibility, and a recognition of the forces that at times get in the way.

Out at the bus-stop

Tai told the story of a tense encounter with an older student, Brixton, where learning emerged through an overnight process of remembering, thinking, and acting the next day. In this story physical boundaries mesh

with thresholds-of-becoming as the flow of the forces in the assemblage are acted out in a moment of tension and drama.

Part One

I had something with Brixton

out at the bus-stop the other day.

Did you ever know Brixton?

He's left our school now –

He was being difficult

and I approached him in the wrong way –

you know - cause I was annoyed

to see him climbing up the trees at 20 to 3

when he'd already left our school.

48 hours later he's back

climbing up trees and causing a scene.

And you know - I just approached him –

I could have handled it better –

I just sort of went at him basically –

as you do sometimes –

and then he went back –

he had a go - and then I realised

that I was getting angry

and had to stop and step back

and essentially just let him run his mouth off.

And I had all these other kids

looking at me thinking

"What's Mr Edmondes going to do?"

"Is he going to do anything about that?"

and I just had to take it.

I had to manage myself –

had to handle it –

cause I knew I was annoyed.

      Tai

In the timespacemattering of the school-grounds, Tai and Brixton were on the edges of transitions and boundaries. Physically they were at the outer boundary of the school at the bus-stop, the place of entry and departure for many students every day. Brixton had only two days ago formally left school, he was in the early stages of becoming ex-student, a new way of being in the world to which he was still adjusting. The ties that held him to school had not fully dissolved when he returned. He was there at the end of the school day, a time when other students are able to leave performances of 'student' selves and transition to their 'home' selves. But he was a bit early, and to Tai this was intrusive. Because Brixton had left school, he no longer belonged to the student body, and so for Tai his right to be on the school grounds when school was still in session—albeit the edges of the school—was questionable. Not only that, Tai interpreted Brixton as "*causing a scene*", drawing attention to himself and disrupting the orderly running of the school in front of other students.

Discourses of male authority and school control came into conflict as Tai asserted his position as teacher at the school, and Brixton asserted his right to be where he wanted when he wanted now he was no longer under the authority of the school. Tai initially fell into a habituated citational chain of going "*at him as you do sometimes*" which provoked Brixton's angry response.

I realised luckily –
I had that moment of clarity –
where I was like OK –
you're on the precipice of blowing it here – so stop.
He kept ranting –
he played up to his mates
and started going "Oh ra ra ra"
and I just had to take it because
I knew I didn't trust myself to keep going with it.
I'd already reached a critical threshold emotionally.
    Tai

In the intensity of the moment, Tai was able to engage his capacity to witness himself. "The ability to reflect on one's experience is a key capacity that fosters resilience. It allows one to witness the self and to witness others. It allows one to be aware" (Weingarten, 2003b, p. 16). Tai's moment of awareness marks a threshold in which many forces were active in the unfolding encounter. He was able to feel his physical reaction to the affective flows of the moment, and name it as rising anger. This act of self-witnessing gave Tai the space to distance himself from his reaction and to catch and hold his response rather than be overtaken by it.

I don't want to be that guy.
I don't want to be that guy yelling and losing it.
        Tai

The presence of other students witnessing the event was another active force in the assemblage. The felt affect of the moment drove Tai towards thought and extension beyond the present moment, to the possible rippling effects on his relationships with these other students (Grannäs & Frelin, 2017, p. 12). The possible out-going flow of relational effects thus became an actant itself in the assemblage (Bennett, 2010, p. 33), inducing Tai to curb his angry response.

The effect of this encounter didn't stop when Tai left the scene. "Movements between [various material-discursive entities] do not stop as the body/place relations end" (Rossholt, 2012, p. 330). Tai's thoughts and his body continued to thrum with the sticky affect of the encounter.

So I walked away - went home,
felt terrible about it –
thought "Ohh, dummy –
you know you should of –
if you'd only said this –
if you'd only said that –

it might have been different"
because although Brixton's Brixton -
I can't control Brixton –
I can only control myself –
and I didn't think I'd done very well.
    Tai

Following a narrative of behaviourist discourses of management and control, Tai was caught up in a Deleuzian moralism (Wyatt et al., 2011), examining himself against the socially constructed norm of a need to *"control"* himself. He judged his initial response to Brixton as inadequate or incompetent, taking on self-blame for the eruption of the drama. Tai had a more compassionate response to Brixton than he did for himself:

they're kids –
they're immature at times –
and I'm the adult
so "Handle it".
    Tai

A reflection from an onto-epistemo-ethico standpoint does not absolve Tai from response-ability for his actions, but examines the complexity of the event and the co-implication of forces operating in it. An understanding of response-ability thus expands beyond the narrow discursive limits of value judgements, and right and wrong, and brings forward instead that "margin of manoeuvrability, the 'where we might be able to go and what we might be able to do' in every present situation" (Massumi, 2015, p. 3). From Tai's telling of the story, he did indeed *"handle"* the situation in way that didn't make things worse. Brixton *"ran his mouth off"* and Tai called on a number of self-practices to ameliorate the situation and stop it disintegrating into an even more distressing scene. In what he described as a *"critical threshold"* moment, his *"moment of clarity"*, Tai became aware of his co-implication with others and took a response-able action to attend to this.

Part 2

Anyway I was walking back

from the War Memorial Hall

period 5 the next day –

coming through the main entrance

across the field

and then I see Brixton there again –

and his girlfriend.

And I think "Oh shit. Here we go again.

OK. Brace yourself, Edmondes …"

     Tai

Seeing Brixton again, Tai experienced a past/future meld where he anticipated a repeat of the previous day's incident. Somatically felt, he needed to "*brace*" himself, a mental and physical preparation for an expected assault. I imagine a straightening of the shoulders, holding his head high, an out-breath that grounded him to the earth—his arms, legs, and body—preparing to "*take it*" again. Mentally reminding himself to remain calm, to "*handle*" the situation in a way that aligned with his hopes to perform himself in a way that would maintain the mana of all concerned. In quasi-causality the possibility of a further difficult encounter with Brixton became alive in the present, affecting Tai's thinking and body as he prepared to speak with Brixton again.

And he walked up to me and said

"Sir, I've come down especially to say sorry."

and it totally disarmed me.

It was like - ohh - OK.

"What's up?" and he said

"Oh I just - you know –

I shouldn't of spoken to you like that yesterday.

You were just trying to talk to me

and I was a dick about it.

And I've come down here today

just to say that to you."
And I was just like
"Ohhh. Thank you mate.
That means the world."
Cause you know, kids don't realise
that sometimes you go home
and feel bad about these things
and think about these things,
and to get that was really nice.
            Tai

What are the conditions of possibility that enabled Brixton to take on such a line of flight? To take the time and energy to return to the school, to meet with Tai *ā kanohi ki te kanohi*—in person—face-face. What prompted Brixton to take action, to find the words to articulate his sorrow and regret and mend the harm done to Tai's mana, to his own mana and to the mana of their relationship? In this second part of the story, Brixton performed himself as an ethical citizen of the world: "…whereas morality involves judgement of the other, ethics rests on openness to the other and the possibility of oneself becoming different, of coming to know and to be differently" (Wyatt et al., 2011, p. 106). Brixton had witnessed himself and his outburst of the day before and sought to make amends, to bring himself back into a relational fold with Tai. That Brixton returned indicates that he too places a high value on relationships—on people—"*he tāngata, he tāngata, he tāngata*" (it is people, it is people, it is people). Whether it was his relationship with Tai, with his girlfriend, with him-self, or some combination of these and other relationships we don't know. We do know that he cared enough, and that like Tai he "*didn't want to be that guy*", and so took an opportunity for movement towards a new and different becoming—a differenciation.

> While the immersion in the *moment of* being involves connectedness to past and future, the differenciation of the emergent subject requires *at the same* time a capacity to forget, to

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> let go of these repeated citations that hold the world in place. (Davies, 2011, p. 36 italics in original)

In that act of restitution Brixton let go of the previous day's argument and performed himself anew. Through the forces of their encounter Tai and Brixton each became-other, in a difficult but mutual learning experience.

That was huge for me.
That was a learning thing for me.
I was like "Wow!"
> *Tai*

Mana, responsibility and entangled becomings

As the stories these teachers told illustrate, riding the waves of teacher⇔student relationality takes attention and skill. It takes awareness of self and openness to the other, mixed with a strong dose of compassion and non-innocent understanding of the complexities of life. To develop a skilful practice of care for self and others takes time and many many moments of imperfection and self-witnessing. For Mere, Hana, Tai and Nikau, whakaaro Māori serves alongside professional ethical standards to guide them through the complexities of relational practice. In particular, the principle of maintaining mana in *kanohi ā kanohi* intra-actions underpins an ethics of response-ability to the unfolding moments of the world as it becomes-with us.

Chapter 10: Percolated learning

The stories told in this thesis have demonstrated that teachers and students are unequivocally engaged in the performance of KC-actions in even micro-moments of entangled encounters. The openings for thinking with KCs generated in this research, appreciate and value the daily small and ordinary intra-actions teachers have with students as significant and integral to the project of schooling as described in the NZC.

When I began this study, I devised a set of research questions that spoke into the wider question: *How do secondary school teachers foster the development of key competencies in incidental and unplanned moments?* I hoped to inquire into understandings of KCs that were available to teachers and to explore how these understandings might be further developed. I wanted to know about the contribution teachers make to the development of KCs in the informal milieu of school life. I was curious about how Māori understandings of KCs might inform teacher practice. And I wondered how looking at what are considered 'behavioural challenges' through a KC lens might affect teachers' perception and management of those challenges. The knowledge that has emerged through this research may indeed be put to work in conversation with these questions, although not in the way I expected. Thinking with posthuman theorising has taken this project far beyond the initial research questions and has opened an expansive space to engage with the concept and performance of KCs.

As I diffracted the research stories (Barad, 2007) and probed the contours of conversations (Mazzei, 2017) I was guided by the following questions:

- What are the material⇔discursive forces at play in this story?

- How might the place, space, and time of this encounter entangle with, shape and be shaped by the forces and intensities operating in the story?
- What might be the affective and agential effects of the material in this assemblage?
- What discursive forces are evident and what might be their affective and agential effects?
- What spaces for the becoming-difference and performance of KCs might be opened (or closed) for learners and teachers through the intra-actions folding and unfolding in the storied moments?

By applying a posthuman theoretical orientation to the research stories, I showed that the forces of such things as colonised histories, bodies, desks, exams, timetables, fudge, bus-stops, urupa, smartphones, affect, futures, values, whakaaro Māori, aspiration, and ice-blocks were active agents in shaping the emergent performance of KC-actions.

Additionally, by thinking with theories of subjectivity, performativity, singularity, and affect, this study has unsettled thinking of being-in-the-world from the individualised and normative limits of humanism. The process of living and learning in schools has been shown to be continuously emergent and differenciating, as possibilities become materialised through the "dynamics of intra-activity" (Barad, 2008, p. 141). Posthuman theorising opens thinking about life to an intra-relational field and to the trans-corporeality of humans and more-than-humans. In doing so, it calls for an onto-epistemo-ethico (Barad, 2007) approach to living with the world, and with the worlds of education.

As I have thought with relational⇔materialist theorising, the vision of the NZC for young people to be confident, connected, actively involved, and lifelong learners (Ministry of Education, 2007, p. 8) has moved into conversation with the Deleuzian question "How might one live?" (May, 2005, p. 1). May says that for Deleuze:

… living consists in difference and its actualization. Difference is not a thing, it is a process. It unfolds—or better, it is an unfolding (and a folding, and a refolding). It is alive. Not with cells or with respiration, but with vitality. To ask what living consists in is to ask about this vitality at the heart of things. (May, 2005, p. 24)

Thinking with posthuman performativity in this thesis has created space to notice and engage with the vitality of life unfolding. KC-actions have been witnessed as emergent and performative, a response to the complexity of matter and meaning entangling and intra-acting in various relations of force, speed, and intensity in everyday assemblages. The individual selves of the teacher and the student have been redrawn as always in process, and mutually emergent with matter and meaning. As the intricacy of life diffracting, unfolding, re-folding, composing and recomposing has been described, space has opened for a nuanced, non-innocent understanding of the complexity of the performance of KC-actions. KC-actions—even in the smallest and finest movements—have been witnessed as forming and shaping of the lives of young people and their teachers, and the place of the school.

In this chapter I think further with the openings generated in this research, to consider what they might mean to secondary schooling in Aotearoa New Zealand. I offer a way of thinking with relational-becoming selves that aligns closely with both posthuman thinking and whakaaro Māori. I re-orient the domains of the key competencies to sit with this re-thinking. I consider the dynamic *ako* context of teacher⇔student relationship, and how a relational⇔materialist orientation offers a thinking practice in which teachers may notice and appreciate whispers and slivers of performances of competence as they emerge from the relational milieu. I then focus on the vibrational plateau of KC-action and the professional role of teachers in the performance of KCs.

Whakaaro Māori and living 'as Māori'

The design of this study shaped the thinking and writing of this thesis in two parts. In the telling of the research group stories, the entanglement of whakaaro Māori remained unstoried despite the inquiry process focussing on knowledge, attitudes, values and beliefs entangled in performances of the KC-actions. Perhaps this was because of the culture of the teachers whose stories were told, or perhaps it was because inquiry questions needed to be more culturally specific to push back against the unseen dominance of Western discourses at work in education. The individual research conversations, however, evidenced that whakaaro Māori **is** indeed alive and active in Te Awa High School.

As Mere, Nikau, Tai and Hana live and teach **as Māori,** practices of whakaaro Māori intimately entwine with dominant Western values operating in the school. More specifically, in their daily work, these four teachers materialise together the pedagogical approaches at the centre of this study: the domains of KCs **and** Culturally Responsive Pedagogies. Mere, Tai, Nikau and Hana told stories of practice that illustrate how they create spaces for rangatahi to perform becoming-Māori with mana upheld. At the same time, as colleagues and students in mutual assemblage, Pākehā and Tauiwi students and staff are afforded opportunities of performatively becoming-other as opportunities to learn diverse ways of being-Māori, being-Pākehā, being-Tauiwi intra-act together.

In the individual research conversations, Mere, Tai, Nikau and Hana demonstrated whakaaro Māori as an embodied and living force guiding their lives and practice. They gave many examples to show how within the ako context of the teacher⇔student relationship there is a relational obligation to connect with students as *whānau*, and to maintain *mana* in *he kanohi ki te kanohi*—face to face—encounters. Those relationships extended far beyond the place of the school, weaving through whānau and whakapapa, and through history and futurity. In particular, the whakaaro Māori values and practices of whakawhanaungatanga and manaakitanga—embodying an ethic of care and responsibility to the

other⇔self—stood out as integral to the daily practice of Nikau, Hana, Tai and Mere.

In this study, stories told of the place of Te Awa High School spoke of the wide and on-going effects of colonisation and racist practices. While the emergence of culturally responsive pedagogies is an active process of decolonising schooling, there is still a long way to go before equitable opportunities for all young people are attained. As an example of continuing colonisation, the dominant power of Western discourses in New Zealand schooling was reflected in the development of the KCs. Swept up in a global wave of educational reform, the richness of Māori wisdom and knowledge and how it might inform the practice of teachers in English-medium schools in Aotearoa New Zealand was elided. To truly honour the Treaty of Waitangi, this omission in the NZC needs to be addressed. As the analysis of individual research conversations in Chapters 8 and 9 of this thesis show, thinking with competent ways of living and learning, **is** the territory of whakaaro Māori as much as it is the territory of the Ministry of Education in this country.

Thinking the world differently

As educators we need to do thinking differently if we are to teach young people self-other ways of thinking with/of the world. Braidotti (2013) argues, a "theory of subjectivity as both materialist and relational, 'nature-cultural' and self-organizing is crucial in order to elaborate critical tools suited to the complexity and contradictions of our times" (p. 52). As the KCs were developed in response to the complexities and "wicked problems" of a rapidly changing world (see Hipkins et al., 2014), bringing relational⇔materialist theorising to the KCs, as I have done in this thesis, is particularly apt.

We are fortunate in Aotearoa New Zealand that a relational view of the world is not new, but has been lived and breathed by Māori for centuries. Whakaaro Māori offers an already immanent onto-epistemo-ethico

engagement with life, where humans are recognised as always already in relationship with the world and all its entities. In Chapter 3 I described how posthumanism aligns with Māori philosophy and practice as a way of thinking. Both philosophies are alternative thinking practices that re-orient from "deeply, and implicitly held species-specific human perspectives about how we experience, understand and respond to and be in the world" (Blenkinsop, 2018).

I offer the following diagram (Figure five, below) as a figuration of a relational conception of self-othering with the world. This figuration invites a relational⇔materialist orientation and an understanding of 'self' as always already in relationship. Placing 'the self' in relationship to ever expanding intra-active spheres of activity, I draw on socio-cultural models of self-in-relationship depicted by both Māori (Berryman & Woller, 2013) and Western (Bronfenbrenner, 1979) theorists. This figuration invites an onto-epistemo-ethico holistic conception of relationality and a way of opening to the intricate, intimate, and entangled intra-connectivity that is the world in its on-going becoming. In this figuration, 'self', 'others' and 'the world' include all others—human, more-than-human, sentient, inert, technological, discursive and material.

I have deliberately created this figuration using uneven shapes in an attempt to unsettle linear thinking and to evoke an imagery of the spinning, unstable, fluctuation of an intra-active relational process. Like any two-dimensional diagram it is limited in its scope. Borderlines between selfother are porous, as theorising in this thesis has already described. At any one time the self is in relationship with all material⇔discursive forces operating in an event. However, as an ordering tool to think performances of 'self-' with, this figuration may be useful.
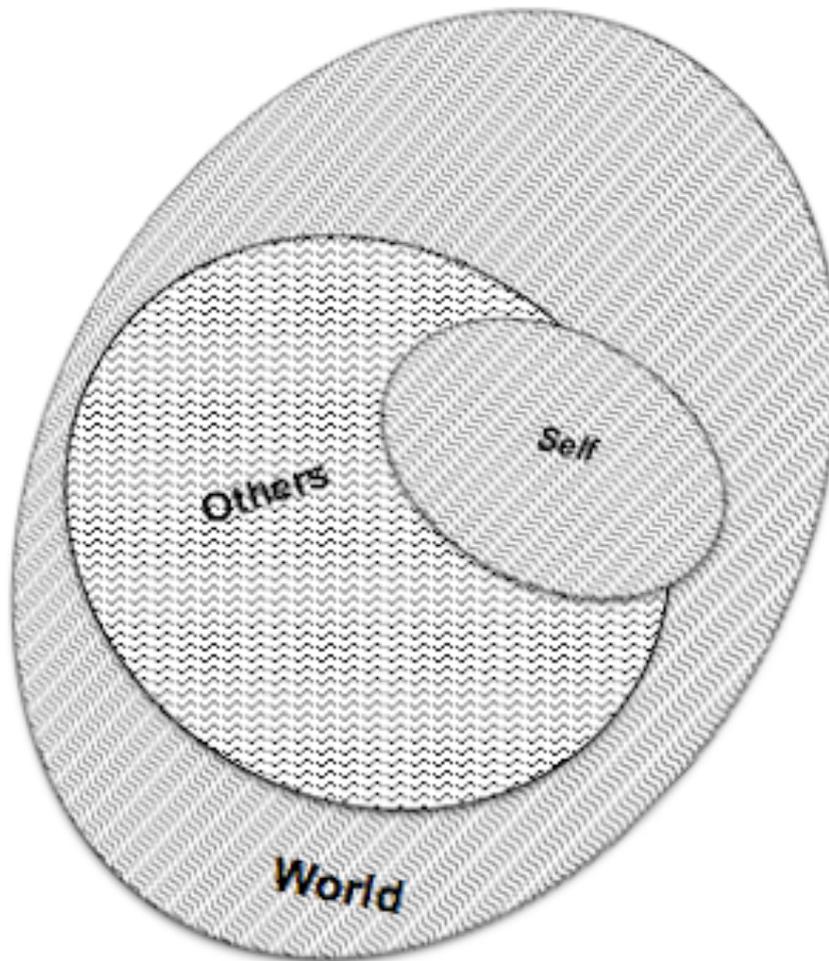
Figure 5: The 'self' as always-already in relationship

This study has shown that emphasising relationality as the process by which we live and become aligns more closely with whakaaro Māori than current KC categories. Moving away from individualistic humanist assumptions honours connectivity, inviting an ethic of response-ability and care as the self is understood to emerge through and as part of worlding relations. I now offer a pattern for thinking that loosens the hold of the categories of the KCs—with their potential to split and reduce actions— and emphasises instead relationality as key to performances of competency. It shifts conceptions of competency to new territories where whakaaro Māori and posthuman understandings of relationality hold sway.

Re-orienting the KCs

I understand key competencies as domains or territories formed from and forming of collective assemblages of enunciation (Deleuze & Guattari, 1980/1987). As such they morph and change as new or other ways of thinking-doing-speaking move through the world. This study has demonstrated that in close inquiry, where the names of the KC-categories were kept at a distance, the intra-active forces influencing performances of KC-actions became more apparent. I therefore propose a re-orientation to the current KC collective assemblage of enunciation. In this adaptation I background the named KC-domains and turn towards noticing acts of living of/with the world as materialised relationalities. Focusing on acts of relational intra-action offers a way of thinking with growing competent and ethical ways of living as "matters of practices, doings, and actions" (Barad, 2007, p. 135) that have effects on the way the world emerges. Such a focus also works against reducing actions to limited categories that may be assigned to an internalised quality.

Employing a relational conception of self-other as depicted in the figuration above (Figure 5), I loosen the striations of current KCs-domains, and think instead with the notion of competencies over the three intra-active spheres depicted. The constellation of KCs may be aligned with the intra-active entanglement of relating with self⇔other⇔world in the following ways:

- ❖ Relating with self <> Care for self
- ❖ Relating with others<>Care for others
- ❖ Relating with the world<>Care for the world

The above figuration (Figure 5) and the ordering of each sphere of KC-action are posited as thinking tools to which current conceptions of KCs may be both mapped and transformed. In this re-orientation, the domains of thinking, and using language, symbols and texts cut across every sphere, and every sphere is porous and intra-related.

Care for self<>other<>world

Throughout the course of this research we—my supervisors and I—have been challenged by the name of one KC domain in particular, Managing Self. The term Managing Self invites a conception of the self as a wild creature that can't quite be trusted and needs to be tamed. In this study, when the student Kelvin[5] ran away from Wyn as she walked him to the DP office, that action may be interpreted as not managing himself to face discipline and take responsibility for his actions. In another story[6], Ella initially said that Joseph should have "*managed himself*" when he got into a fight in the classroom. The term Managing Self lends itself to being readily recruited by discourses of authority and discipline as a blanket term to position young people as rational autonomous beings who need to submit to authority and perform themselves as good students.

In introducing the notion 'care for self<>others<>world' I take as a starting point Foucault's concept of care of the self (1984/1988, 1988, 1994/1997a). Care of the self evokes a more complex relationship with the self than something that needs to be managed in order to fit into an already constituted society. Foucault refuses a notion of self that is about claiming and defining a fixed identity. Indeed in a 1982 interview (Martin, 1988) Foucault said: "I don't feel it is necessary to know exactly who I am. The main interest in life and work is to become someone else that you were not in the beginning" (p. 9). Such becoming-other accords with conceptions of the **self as a relational process**, a multiplicity constituted as becoming and emergent with the material⇔discursive world, as I described in Chapter 2. As one goes about becoming with the world, Foucault's conception of care of the self is concerned with actions, with technologies and practices that one does that are intimately related to the ethics and art of living in community, in a "network of obligations" (Foucault, 1988, p. 27).

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[5] Chapter 7: From performing trouble to performing haka
[6] Chapter 7: A fight in the classroom

As a concept, care of the self moves away from technologies of power that impose normalising judgements "under the canopy of the bell-shaped curve" (White interviewed by Hoyt & Combs, 1996, p. 37), and towards engaging with composing one's own life (Bateson, 1993) as always already in relation to others—human and more-than-human. Returning to the students Kelvin[7] and Joseph[8], my analysis of each story brought forward finely nuanced understandings of the complexity of the performance of KC-actions, as instances of caring for themselves and others were witnessed occurring amidst the trouble.

Foucault based his concept of care of the self on his study of Ancient Greek and Roman practices of "the cultivation of the self" (Foucault, 1984/1988, p. 43). He notes:

> This attention to the self did not depend solely on the existence of schools, lectures, and professionals of spiritual direction for its social base; it found ready support in a whole bundle of customary relations of kinship, friendship, and obligation. (Foucault, 1984/1988, pp. 52–53)

A "bundle of customary relations" may be thought together with Māori ako contexts of learning as described in Chapter 3 (see Berryman & Eley, 2017a; Lee, 2008). Ako contexts of learning extend learning beyond the formal arena of schooling to a wide range of mutual learning relationships in communities. The emerging formation and care of the self as an ethical-subject-in-relation becomes both produced in and productive of social connection—which I extend to all matter, sentient or not—of the world.

> But it is sometimes the case too that the interplay of the care of the self and the help of the other blends into pre-existing relations, giving them a new colouration and a greater warmth. The care of the self—or the attention one devotes to the care that others should

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[7] Chapter 7: From performing trouble to performing haka
[8] Chapter 7: A fight in the classroom

take of themselves—appears then as an intensification of social relations. (Foucault, 1984/1988, p. 53)

And so, in the stories told in this thesis, Briar's care for the boy who had given up working in the exam[9] became intimately linked with his performance of care-for-himself as he persevered with the exam after she had left the hall. Their relationship was given greater warmth and colouration when Briar met him again after the exam and heard how he had achieved. She foresaw the reverberations of that warmth staying with her, materialising in her body as embodied memory when *"I'll see him round for the next three years and I'll know that moment"* (Briar). Briar's relationship to the memory of that moment thus remains as an active agent in her on-going composition and care of herself. "Memory is the real name of the relation to oneself, or the affect on self by self" (Deleuze, 1986/1988, p. 107). Memories and the affects produced by them are thus becomings of self in "which the self relates to itself and may thus be transformed" (Randall & Munro, 2010, p. 1496).

Developing techniques of care for the self is part of an ethical becoming with the world. Through relations with and practices on the self by the self:

> the subject constitutes itself in an active fashion … these practices are nevertheless not something invented by the individual himself. They are models that he finds in his culture and are proposed, suggested, imposed upon him by his culture, his society and his social group. (Foucault, 1994/1997b, p. 291)

In this study, teacher's actions were shown to be intimately implicated in young people's formation of themselves as active agents, and equally young people's actions were constituting of teacher's on-going formation of self. Even if a young person is not directly involved in events as they unfold in an assemblage, they will be affected by them. Witnesses to

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[9] Chapter 6: A nudge in the right direction

Moana calmly putting the pens away[10], to Kelvin tagging[11], to Brixton *"running his mouth off"*[12], to Jonno walking in to class[13], become other-than-they-were-before as relational ripples spread outward and diffract with other forces in the assemblage. As students witness and are constituted with their peers' and their teachers' intra-actions, their experience of—and therefore potential for—ways to go about living with the world is broadened. The more potentials available to us "intensifies life" (Massumi, 2015, p. 6) as we have access a range of experiences and a "degree of freedom" (Massumi, 2015, p. 6) in how we engage with life. As Foucault says (in Martin, 1988), we are "freer than [we] feel" (p. 10).

Shifting KC-thinking into the realm of care for the self<>others<>world makes space for practices of self-witnessing, and also allows for evocative experiences of haecceity, of singular awareness of the co-extensiveness of self-other in the world. It forms a line of flight that moves KCs towards territories of affirmative becoming, as the role of others in intra-action with material⇔discursive forces is entangled with the aesthetics of shaping one's life. For example, in this study Tai told the story of his difficult encounter with Brixton[14]. That encounter stayed with both Tai and Brixton as an embodied 'feeling bad'. When Brixton cared for his relationship with Tai and specifically came back to school the next day to apologise, he was also caring for himself by taking action to dissipate the bad feeling that had inhabited his body since the incident. Following the apology Tai too shifted into a new embodied experience and was able to go about his day in a different way, opened to the other in a way *"that meant so much" (Tai).*

By re-orienting the KCs in this thesis, the conception of 'relating with others<>care for others' includes both human<>human and human<>more-than-human life forms. Much of the pain and suffering inflicted through the world arises from a range of hurtful practices, from

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[10] Chapter 7: Where should the felt pens be?
[11] Chapter 7: From performing trouble to performing haka
[12] Chapter 9: Out at the bus-stop
[13] Chapter 7: Falling out of friendship
[14] Chapter 9: Out at the bus-stop

unthinking clumsiness to destructive acts of violence. For this reason, gaining competence in ethical relationships with others is important for building young people's capacities to live well and contribute to the "well-being of New Zealand—social, cultural, economic and environmental" (Ministry of Education, 2007, p. 8). The concept of care for self<>other>world calls forth the associated discursive field—the collective assemblage of enunciation—that is sustaining of relationship. Words such as "*vocation*" (Briar), and "*he's my go to boy*" (Ruth), "*kindness*" (Nikau), "*mana*" (Tai), "*respect*" (Hana) and their associated practices, are elevated and legitimated as **central** to teaching and learning and building a sustainable world.

In a posthumanist flat ontology, humans are deposed from hierarchical superiority and considered alongside other beings as "mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings" (Haraway, 2016, p. 1). A posthuman relational⇔materialist lens expands the KC-domain of 'Participation' to consider the self's performative entanglement with all others and the world. Technology, rocks, trees, oceans, worms, brothers, sisters, ants, tīpuna, [G]gods, patupaiarehe, creatures of myth, and humans and creatures still to come.

> A posthuman ethics for a non-unitary subject proposes an enlarged sense of inter-connection between self and others, including the non-human or 'earth' others, by removing the obstacle of self-centred individualism. (Braidotti, 2013, pp. 49–50)

The very act of living of/with the world involves participation in it, each action shaping the world in entangled co-constitution **with** others, in sympoiesis rather than autopoiesis (Haraway, 2016). An ethical relational sense of belonging engages in thinking with the domains of the KCs as potent capacities continually folding and re-folding together. Fostering an ethical relational sense of belonging and recognising one's co-implication with others and the world opens thinking beyond the "obstacle of self-

centred individualism" to noticing and taking responsibility for the rippling and on-going effects of one's actions.

Thinking and making sense

An onto-ethico-epistemo knowing and relating with the world requires many kinds of reading, thinking and sense-making. It may mean understanding the language of plants, or of bees and frogs as they struggle to survive. Or it may entail thinking beyond the convenience of social media, to the implications of public and corporate accessibility to private worlds. Or reading the currents of affect embodied in any event. New and creative ways of thinking with the world continue to evolve and are imperative to building sustainable futures (see for example Braidotti, 2013; Haraway, 2016; Wolfe, 2010).

> Knowledge is always changing … when you look back on ancient times, mātauranga Māori was an evolving form of knowledge. You didn't survive otherwise. You had to adapt to new situations all the time. (Durie, 2012, p. 23)

Thinking and making sense happen across all domains of relationship, from self-witnessing and practising care of the self, to adapting to the constant flood of new technology. Thinking may be as clear as recognising an embodied sensation, or as complex as participating in critical group-thinking. Reading the world and thinking with it remain crucial to skilful living.

The KCs as plateaus of becoming

Relational domains of competence become actualised through the intra-action of material⇔discursive forces active in any event. As an event forms an assemblage it is composed of a kinetic congregation of lines and dimensions moving along a trajectory. Within the motility of an assemblage, particular intensities form and reform. Deleuze and Guattari call these intensities plateaus. The performance of KC-actions may be identified as plateaus:

> A plateau is always in the middle and not at the beginning or end. Gregory Bateson uses the word "plateau" to designate something very special: a continuous, self-vibrating region of intensities whose development avoids any orientation toward a culmination point or external end. (Deleuze & Guattari, 1980/1987, pp. 21–22)

While fostering the development of the KCs is described as both a means and an end of learning (Ministry of Education, 2007, p. 12), in the stories told in this thesis performances of relational becomings with self<>others<>world happen in the midst of a conglomeration of other becomings and worldings, in an assemblage. As fudge is being produced[15], so too are calm bodyminds and acts of kindness. As pens are returned to their containers[16], a new way of responding to unexpected events is performed. As a study-plan is written on paper[17], practical ways to diminish a sense of being overwhelmed are learned and sedimented into personal practice. Deleuze and Guattari (1980/1987) suggest that we evaluate expressions and actions on "a plane of consistency on the basis of their intrinsic value" (p. 22). Each of the performances of KC-action related in this thesis have value in themselves, as actions that have on-going effects aside from the trajectory of the assemblage as they sediment into new or potentially available ways of further becoming.

The performance of KCs as plateaus of becoming experience extends and connects to other becomings and assemblages. "We call a "plateau" any multiplicity connected to other multiplicities by superficial underground stems in such a way as to form or extend a rhizome" (Deleuze & Guattari, 1980/1987, p. 22). And so, the self-vibrating region of intensities that was Ruth-Max-gifting-fudge[18] reverberated again as with delight Ruth told the story of making fudge in the classroom to the small group. Those reverberations continued through to my transcription and reading of the

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[15] Chapter 5: Making fudge in the classroom
[16] Chapter 7: Where should the felt pens be?
[17] Chapter 7: The penny-drop factor
[18] Chapter 5: Making fudge in the classroom

story, touching me as "data that glows" (MacLure, 2010, 2013b), a poignant moment to write with.

Affective movement produces the shimmering intensity of KC-actions as plateaus of becoming experience. In the reverberation of the particular mix and relations of forces in an encounter, affect is the brewing hum of potentiality (Massumi, 2015)—sensed or not—as change and differenciation occur. And change and differenciation occur constantly:

> There is always a commotion underway … There is always a something-doing cutting in, interrupting whatever continuities are in progress. For things to continue, they have to re-continue. They have to re-jig around the interruption. (Massumi, 2015, p. 53)

The plateau of KC-actions, that vibrating hum of intensity, may perhaps be heightened as Rachael experienced [19] when she walked into her classroom and sensed a different-to-usual still air of tense expectancy. Or perhaps the intensity of the moment is so fleeting and so subtle that it passes beyond awareness, as the hubbub and commotion of other "something-doings" command attention. However they are experienced, each potential KC-action vibrates in intensity as "potentials resonate and interfere, and thus modulate what actually eventuates" (Massumi, 2015, p. 55). This shimmering vibration indicates the two-sidedness of both the virtual potential present in an event, and the crossing of a threshold as capacities and tendencies are taken up and acted on (Massumi, 2002b).

The virtual potentiality of every moment is made possible by the affordances available in the encounter. "Particular possibilities for acting exist at every moment, and these changing possibilities entail a responsibility to intervene in the world's becoming, to contest and rework what matters and what is excluded from mattering" (Barad, 2008, p. 144). At every threshold there is the possibility for new ways of becoming to emerge. As a teacher pays attention to the forces operating in any

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[19] Chapter 7: Where should the felt pens be?

assemblage, s/he is better positioned to exert a care-ful and intentional influence, to "contest and rework what matters" (Barad, 2008, p. 144). I now consider aspects of teacher⇔student relationships from the point of view of the teacher with the capacity to influence forces operating on the performance of KC-actions.

The *ako* context of the teacher⇔student relationship

The process of speaking with teachers and gathering research stories has emphasised how much of teachers' daily work involves momentary, incidental or unplanned intra-actions with young people. "Daily interpersonal interactions in classrooms are the building blocks of teacher-student relationships" (Pennings et al., 2018, p. 41). In the storied moments of this study, the teachers did not set out to formally teach particular KCs. Nevertheless, KC-actions were evidenced being performed, practised, learned and sedimented in every story both inside and outside of classrooms.

In *te ao hurihuri*—the everchanging world—young people spend "less time interacting with their peers in face-to-face situations than any previous generation" (Twenge, 2017, p. 71), and more time physically alone on electronic devices. In the face of this social change, the *he kanohi ki te kanohi*—face to face—intra-action of the teacher⇔student relationship becomes an increasingly important context where "building social skills, negotiating relationships, and navigating emotions" (Twenge, 2017, p. 72) may be practised.

In this section I discuss elements of the ako context of *he kanohi ki te kanohi* teacher⇔student intra-actions that were made known in this study. The quality of teacher⇔student relationships as a context for learning has been associated with student academic achievement, sense of belonging and attitude to school (Chhuon & Wallace, 2014; Quin, 2017) and with teacher enjoyment and continued motivation for teaching (Claessens et

al., 2017). I now think further with theory and the research stories to consider implications for the professional practice of teaching that have emerged.

Becomings in process

Students—and teachers—do not come into the school grounds as fully formed discrete individuals. They/we/all of us are in a process of creative emergence as our bodyminds intra-act with matter, discourse, and human and more-than-human beings. As subjectivities emerge through the process of intra-action, so too do the identities and practices that we adopt. The stories in this thesis show that as teachers go about their day, they face myriad opportunities to open up possibilities for change. These opportunities may seem "small and ordinary" (Weingarten, 2004) micro-moments, but nevertheless they have effects in place/world-making and the lives of others.

In thinking with the KCs and drawing on Butler (1990/2006) and Barad (2007), a posthuman performative understanding suggests that the KC-actions—those 'doings', ways of acting in/of/with the world that may be thought of as falling within the discursive domains of the KCs—that people adopt and adapt are both shaped by and shaping of understandings of those same KCs. For example, as Mere, Tai, Nikau and Hana live whakaaro Māori, the repeated actions they take become sedimented into and part of the culture of the school, creating space and (in)forming others how they too might go about being Māori in this place. When Chris[20] enacted care for her students by offering them a treat lesson on fudge-making, a thread of care remained activated in Max's becoming-self. The discursive value of care became mattered-in-action as Max performed himself as an ethical being caring-for-Ruth by saving and then giving her fudge.

> The topological dynamics of space, time, and matter are an agential matter and as such require an ethics of knowing and being: intra-

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[20] Chapter 5: Making fudge in the classroom

actions have the potential to do more than participate in the constitution of the geometries of power; they open up possibilities for changes in its topology and dynamics, and as such, interventions in the manifold possibilities made available reconfigure both what will be and what will be possible. (Barad, 2007, p. 246)

Creative agentic acts may also intervene and upset the repetition of performative iterations. When Jamie[21] and Briar[22] each helped young people to navigate the stresses of exams, in a "paradoxical simultaneity" (Butler, 1997, p. 116) of submission and mastery, they skilfully demonstrated that received conventions which impede learning may be resisted and/or subverted. Alongside resistance, they activated their knowledge of the particular young people, and called on values of care, justice, and doing-your-best, to meet and tend to each young person in an ethical way.

The research stories show learning and performing KC-action is a messy, uneven, recursive, tentacular process. Both student-Brixton and teacher-Tai[23] each became other as they acted anew a preferred way of relating to each other. Kahurangi[24] performed himself again as he spoke with Mary about his shame and asked her for help in writing down his account of the fight-in-the-classroom. Ariana [25] re-iteratively performed herself as competent and organised, as each week she consulted the materialised plan she and Ed had created. Each new performance entailed the possibilities of/for future selves, as new practices—however thinly sliced—sedimented into bodyminds. Learning and fostering KCs is for the future (Hipkins et al., 2014), and—as has been shown in this study—competency actions are bound up with creatively living the possibilities available now.

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[21] Chapter 6: I don't understand exams
[22] Chapter 6: A nudge in the right direction
[23] Chapter 9: Out at the bus-stop
[24] Chapter 7: A fight in the classroom
[25] Chapter 7: The penny-drop factor

As performances of 'teacher' and 'student' emerge through a process of individuation in dynamic co-produced encounters, so too do active ways of relating to self and others. Ruth became woven in to the fudge-making classroom assemblage, performing her-self as observing-teacher as she watched the lesson unfold, and re-performing the delight she experienced in that lesson as she spoke with Chris and Frank in the research group later that day. Jamie[26] told of Tane's tenacity as he *"screwed up his eyes"* and wrote his exam essays. The constitution of Jamie's self as teacher-with-Tane in that moment, flowed through to in-form the constitution of her-self as listener-and-advisor to Sandra, and later as advocate-for-social justice as she spoke with Pat and me in the research group. Each intra-action folded embodied experience with the fluxes, flows, calls and affordances of the moment.

The beauty of performative understandings of emerging subjectivities is the space that is opened for potential to be realised. Attending to emerging subjectivity invites an appreciation of the learning that is being produced and performed and moves away from the distancing and dis-connective practices of normative or moralistic assumptions about development or behaviour. While Kelvin's actions of tagging in the school[27] were unacceptable to school authorities, a diffractive reading of the story showed he had also performed competent actions that enhanced his relationship with himself and his peers. Jonno[28]—who had previously acted in ways that damaged his friendships—was in a vulnerable position when he returned to the classroom. As Huia carefully invited him to join the lesson, he was able to care for himself and navigate through his embodied discomfort to remain seated in his desk for the full class period. Possibilities for change and growth abound as the "status quo, inside which identities and existing knowledges are lodged, gives way to *being there* with the child, to a relational, emergent reality" (Davies, 2014, p. 23 italics in original).

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[26] Chapter 6: I don't understand exams
[27] Chapter 7: From performing trouble to performing haka
[28] Chapter 7: Falling out of friendship

All this is not to say that unhelpful or injurious actions may be ignored. Life learning is not a set of linear steps to be serially climbed and achieved. Life learning is a messy, recursive, painful, joyous and relationally bumptious affair. "Life is a plane of potentialities or tendencies that may be actualized in certain relations but that could also produce other relations, other worlds" (Colebrook, 2004, para. 8). The possibility of other relations, other worlds, makes space for students such as Kelvin[29] and Joseph[30] to re-perform them-selves and traverse territories from student-in-trouble to student-engaging-with-school. It makes space too for teachers to witness and appreciate the work they do as they notice slim slivers of KC-action and learning that may previously have been hidden. Like Sam[31] they may say with pleasure *"Hey – I was a teacher today!"*

Professional standards and adaptive expertise

While the teacher⇔student relationship is one of mutual co-constitution, it is also lopsided. As discursively produced powerful adults in these relationships, the teachers in this study were guided in their actions by their personal values and beliefs, and by professional ethical standards (Education Council, 2017). European research (Pennings et al., 2018) suggests that favourable and constructive teacher-student relationships are characterised by teacher responses to students in "accordance with professional standards" (p. 41). In Aotearoa NZ, the Education Review Office (2016a) has stated:

> To be able to promote the wellbeing, achievement and progress of all their students and prepare them for living in the world they will encounter as adults, teachers need *adaptive expertise* … its defining characteristic is the ability to respond flexibly in complex contexts. (p. 32, italics added)

While the context of the above statement is in relationship to learning intentions and content—that is, the back-half of the NZC—I suggest that

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[29] Chapter 7: From performing trouble to performing haka
[30] Chapter 7: A fight in the classroom
[31] Chapter 6: A nudge in the right direction

adaptive expertise may well be a term applied to teachers' capacity to respond to the complex challenges of incidental relational moments with students. I continue this section by exploring knowledge that emerged from this study as components of the adaptive expertise that the teachers in these stories practised.

The force of affect

The force of affect was evident in every story told in this study. Mere[32] spoke of the reverberating pain she and her friends still carried from the time they were kept to one side in their primary school classroom, and how that pain now informed her classroom practice. Hana[33] told of the celebratory pride her students experienced as they witnessed the wānanga graduation. Wyn[34] was left walking to the DP's office on her own to report tagging, when Kelvin responded to the somatically felt drive to run and "*took off*" in a different direction. Indeed, theory informs us that the moving, vibratory force of affect is a dimension of every event, and "governs a transition, where a body passes from one state of capacitation to a diminished or augmented state of capacitation" (Massumi, 2015, p. 48). Affect is present prior to individuation or emerging subjectification as "a pre-conscious bodily capacity to become, to act and to be acted upon" (Clough, 2008, p. 141). Thus, not only is affect an integral component in any teacher⇔student moment, it is a modulating force in the actualisation of potential and in performances of the KCs. As Tai said, *"We're dealing with young people—we're dealing with potential—and those relationships are key to everything that occurs"*. It makes sense then that paying attention to flows of affect and its shimmering intensity is an important component of teacher adaptive expertise.

Affective literacies

The materialisation of affect as it is sensed and responded to in teachers' bodies has been shown in this study to provide teachers with valuable knowledge about forces and intensities operating in an assemblage. As

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[32] Chapter 8: The effects of colonisation
[33] Chapter 8: Breathing communities
[34] Chapter 7: From performing trouble to performing haka

events in the material⇔discursive world play out, there is an "embodied flow of tempo, energy and affect" (Rossholt, 2012, p. 329). Human bodies are receptive organs connecting to the vibrational flows of an event, perhaps outside our awareness, or perhaps consciously sensed and narrated as emotion. The sensed event in the moment, or later re-membered in a practice of self-witnessing, is informative and in-forming. Many teachers in these stories tuned into their bodies as a source of knowledge. Chris[35] and Rachael[36] both spoke of the sense of a particular energetic quality they were aware of, in the playground and walking into their classrooms. Huia[37] sensed the hesitation and reluctance that her student Jonno experienced at the doorway to the classroom. Mark[38] commented that he too had experienced walking into a room and becoming aware that *"something's going on here".* Materiality and affect intertwined in the food-tech room to produce a space that Ruth[39] described as a *"pleasure zone".*

The smooth space of becoming differenciated is one of sensed haptic perception, "it is an intensive rather than extensive space" (Deleuze & Guattari, 1980/1987, p. 479) and so tuning into embodied sensation ushers one into the possibility of KC-action that vibrating intensities make known. The teachers in this study talked about sensing the affective tone of a space as one form of embodied knowing. They also read cues such as stillness and silence (Rachael[40]); facial expression, *"I could see Paora's face"* (Chris[41]); and the position and posture of bodies, *"he was just literally lying down on his paper"* (Briar[42]). Haptic cues were noticed in teachers' own bodies, such as when Nikau[43] described the felt experience of unresolved conflict as a blur on his relationship with a student.

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[35] Chapter 5: Making fudge in the classroom
[36] Chapter 7: Where should the felt pens be?
[37] Chapter 7: Falling out of friendship
[38] Chapter 7: Where should the felt pens be?
[39] Chapter 5: Making fudge in the classroom
[40] Chapter 7: Where should the felt pens be?
[41] Chapter 5: Making fudge in the classroom
[42] Chapter 6: A nudge in the right direction
[43] Chapter 9: A blur on the relationship

Reading and responding to haptic cues has been termed affective literacy (Masny, 2013). Like any literacy, becoming aware of and attuning to affective tones, flows and embodiments may be learned, practised and polished. "Literacies involve reading, reading the world and self as texts that create potentialities for transforming life (how might one live)" (Masny, 2013, p. 75). Mis-reading or mis-understanding is also possible. Developing affective literacy is thus an important component of professional adaptive expertise in terms of fostering KC learning.

Modulating and transmitting affect

Bodies not only receive vibrational affect, they also transmit it. Any change produces affective movement and waves of affect flowing and bubbling together in constant entanglement. Ruth[44] commented on the calmness that radiated from Chris as she went about her lesson and responded to the boys who made a mistake in their measuring. Rachael[45] tuned into and read the silence and gaze of her form-class as generally-experienced apprehension and expectation. When Tai and Brixton[46] were in conflict at the bus stop, Tai read his own bodily reaction and "*handled it*", curbing his response so that the situation would not escalate. These teachers' stories highlight moments where they not only skilfully read situations, they also responded in ways that modulated affective currents, producing changes in capacity for both the students and for themselves.

> When you affect something, you are at the same time opening yourself up to being affected in turn, and in a slightly different way than you might have a moment before. You have made a transition, however slight. You have stepped over a threshold, seen from the point of view of the change in capacity. (Massumi, 2015, p. 4)

Changes in bodily capacity are the materialisation of differenciation. When thinking with learning and fostering the performance of KC-actions, it is

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[44] Chapter 5: Making fudge in the classroom
[45] Chapter 7: Where should the felt pens be?
[46] Chapter 9: Out at the bus-stop

important to remember that affect is intimately involved in the performance of potential's unfolding. Our experience of our capacity to act directly effects that action, and may change from moment to moment. In the in-between hyphen-moments of bi-furcating possibility, potential lines of flight are poised on thresholds of change. The teachers in these stories were influential agents as they responded ethically to affective cues, maintaining mana and opening space for differenciation and change. For example, as a sense of calm order radiated through the classroom, Moana[47] was able to perform herself anew as she capably put the pens away.

On-going effects of affect

Embodied affect doesn't necessarily dissipate quickly. Kofoed and Ringrose (2012) coined the term "travelling and sticky affects" (p.9) to describe the non-linear and somewhat bumpy path that affect can take. Sometimes it travels quickly, passing through the body leaving little trace. At other times it sticks for a while, maybe taking up lodgings. Discomforting affect that sticks around can cause somatised ill-effects that intrude and even impede the clear functioning of bodymind. Following moments of conflict with students, Tai[48] and Jane[49] both took notice of the distress residing in their bodies as *"feeling bad"* and were prompted to action. Ella[50] was still experiencing distress as she talked with the research group about the fight in her classroom ten days previously.

Responding to students in ways that connect and care in a skilful and ethical manner is not always easy, as Nikau, Jane, Ella and Tai described. Sometimes a variety of forces operating on a teacher limit their capacity to respond in a way they would wish. And sometimes, the affective force of events lingers in bodies, becoming a causal force entangled with further performances of self either in the context of particular teacher⇔student relationships, or as a more generalised effect on the teachers' professional

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[47] Chapter 7: Where should the felt pens be?
[48] Chapter 9: Robustness in the day-day
[49] Chapter 7: A fight in the classroom
[50] Chapter 7: A fight in the classroom

sense of and satisfaction in their work. The embodied, plateau intensity of 'sticky' affect is, however, a cue for the potential of KC-action. Paying attention to that cue as a learning opportunity is a practise of teacher adaptive expertise. Taking up affordances—or lines of flight—to make a transition and care for self and/or others will produce an affective difference that may be sensed as a new embodied experience.

The force-effect of discursive values and practices

The diffraction of these research stories testifies to the force-effect of teachers' values as they came to matter in the learning assemblage. This study shows that even apparently small everyday relational moments are alive with discursive values, whether or not they may have been visible to either the teacher or the students at the time.

The importance of maintaining mana led Nikau[51] to buy an ice-block for the student whose place he jumped in the queue. As they uphold and live whanaungatanga, Mere [52] and her colleagues keep comprehensive records so they may connect students with their whakapapa. Hana[53] listened to the boy in her class who did well on his spelling test, upholding and promoting his mana as she followed his wish to share his success with his mother. As Tai[54] and his students exchange brief moments of recognition across the playground, they not only maintain the mana of the other, they also value and maintain the mana of the relationship. The relationship—and each-other—co-exist. The strongly held value of *"giving your best"* acted on Briar[55] to assist the boy in the exam to keep working. Jamie's[56] belief in social justice fuelled her research conversation with Pat and me, and materialised in her taking the time to talk with Sandra. In each of these storied moments, values and beliefs were all taking shape in action, and each action could be categorised in more than one KC domain.

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[51] Chapter 9: The tuck-shop and the ice-block
[52] Chapter 8: Whakapapa
[53] Chapter 9: We're teachers of change
[54] Chapter 9: Kōrero ā kanohi ā tinana
[55] Chapter 6: A nudge in the right direction
[56] Chapter 6: I don't understand exams

A relational⇔materialist reading amplifies the notion of values taking-action-in-the-moment, to opening the possibility of further change and differenciation. In her classroom, Huia[57] held "*hope*" that Jonno would once again be in a comfortable relational place with his peers. It hadn't happened yet, but "*hope"* had entered the teacher⇔student relationship as an active force, and so opened a possible line of flight in Jonno's becoming. In the research group, Sam[58] commented on Briar *"believing in"* the boy in the exam. Belief in, trust in the boy and his learning, were alive in-the-moment and remained available for the boy to re-territorialise and continue performing himself as working-student when Briar left the exam. Believing in students, holding hope for them, ushers that hope and belief into the learning assemblage. It becomes an affordance for change, creating possibilities for new becomings that may not have been previously available to students in that situation.

The teachers in this research project were invited to think with and articulate some of the values and beliefs that they brought with them into the storied moments. As this study has highlighted, these values and beliefs were influential forces on the trajectory of the assemblage and the performance of KC-actions. Creating opportunities for teachers to engage with the values and beliefs they enact every day is thus a potentially valuable site of professional development and one that is available for further research.

Knowledge and recognition

Tai, Nikau and Mere all talked about the need to form relationships with their students as the context for learning[59]. In a North American study, Chhuon and Wallace (2014) spoke with adolescents about their experiences of "being known" (p. 381) by teachers at high school. They describe "being known" as teachers taking an active interest in their students, and liken it to an act of care. These authors cite other research

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[57] Chapter 7: Falling out of friendship
[58] Chapter 6: A nudge in the right direction
[59] Chapter 9: We're teachers of change

that locates "being known" as a distinct component of school connectedness and a sense of belonging in young people.

Many kinds of knowledge acted on the teachers—and students—in these stories to (in)form their responses. As well as the embodied knowledge gained through affective readings in the moment, personal knowledge built up through many moments of connection also came into play. Mere[60] deliberately practised mihimihi with her class and with new students to grow and extend whakawhaungatanga connections. Briar[61] knew the girl in the examination had been unwell for a lengthy period, and so was sympathetic to her struggles. Jamie[62] knew something of Sandra's family troubles, and Ed[63] too knew that Ariana was struggling in a number of areas of her life. Huia[64] knew another boy in her class well enough that she could take an *"intuitive punt"* to ask Jonno to sit beside him. Mike[65] knew that Kelvin would come back to class, and understood Kelvin *"bolting"* as a momentary avoidance of trouble. In every story where knowing-of-the-other was spoken, so too were words of empathy, caring and/or understanding. The two—knowing and caring—inform each other. Mihimihi, whakawhanaungatanga, manaakitanga. Just as Mere, Nikau, Tai and Hana described.

Building a relationship entails more than knowing-of-the-other. Seeing-the-other as an act of recognition is also important. Watkins (2010) considers the notion of recognition a fundamental aspect of the pedagogic process. "This pedagogic relation involves a process of mutual recognition realised as affective transactions that at one and the same time can cultivate the desire to learn and the desire to teach" (2010, p. 271). Recognition of a student may involve patience and/or time, such as Jamie[66] listening to

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[60] Chapter 8: Whakawhanaungatanga – building connections
[61] Chapter 6: A nudge in the right direction
[62] Chapter 6: I don't understand exams
[63] Chapter 7: The penny-drop factor
[64] Chapter 7: Falling out of friendship
[65] Chapter 7: From performing trouble to performing haka
[66] Chapter 6: I don't understand exams

Sandra's worry about exams, or Ed[67] taking the time to meet with Ariana specifically to work on her plan. Or small acts of recognition may happen in micro-moments of mutual acknowledgement across bodies and space in the playground as Tai described[68], or in the quick quips and humour that Nikau[69] enjoys as he walks to his classroom.

A relational stance of becoming-with young people

As a way to develop attunement to the affective flows and intensities occurring in everyday moments, Davies (2014) suggests adopting a relational stance in which the adult-teacher pays attention and is receptive to the not-yet-known becoming of the child and the self, and also to the forces at play in the moment. "Listening is not just to oneself and the other, but to the intensities of forces working on us and through us. It listens to changing, emergent thought, and is co-implicated in it, diffracting with it" (p.35).

Paying attention in such an embodied way makes space for curiosity and thinking with others, enfolded in an ethic of care and respect. Haraway (2016) describes Despret's stance in observational research:

> In attunement with those she thinks with … with joy and verve ……
> Her kind of thinking enlarges, even invents, the competencies of all
> the players, including herself, such that the domain of ways of being
> and knowing dilates, expands, adds both ontological and
> epistemological possibilities, proposes and enacts what was not
> there before. That is her worlding practise. (p.126-7)

Practising such attunement both blurs the very boundaries and edges of 'self' and enhances awareness of thresholds where new possibilities, new connections, and new becomings lie. Moving from a (self)consciousness at the centre of an accreted self, to a 'selfother' or participatory consciousness (Heshusius, 1994) at the relational edges of co-becoming

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[67] Chapter 7: The penny-drop factor
[68] Chapter 9: Kōrero ā kanohi ā tinana
[69] Chapter 9: Incidental moments – seized moments in the day-day

is not easy (Davies, 2014; Heshusius, 1995). Attending to learning moments, to the wide-open potential for the performance of the KCs, means developing skill in self-witnessing as well as witnessing relational flows and forces in a learning assemblage. To incorporate such a participatory 'selfother' mode of awareness into the *kete* of effective teacher practice may seem a stretch. However, developing such awareness opens the possibility of fine-grained nuanced responses in both tranquil and tricky learning moments. Rachael[70] leaned into such a practice when she paused in the moment of entering her form-room and paid close attention to what was unfolding. Mindfully stepping aside from any anticipatory anxiety that may have arisen in her body, she was able to maintain a calm demeanour in her response, making space for Moana to perform her-self as competent. As teachers open themselves to listening-to-the-other (human and more-than-human) in relational assemblage, they also bring their valued ways of being into teacher⇔student moments. In this way students are not just the beneficiaries of kindness, care, respect, curiosity, and participation in/with/of the world—they become part of the performance of these actions, and are afforded opportunities to learn and sediment these practices, these ways of becoming, these competencies, into their own becoming selves.

The desire to learn and to teach, cultivated through positive affective intra-actions, embodied gestures, kind words, firm support, the taking of time, care and concern—enriches the fertile ground of the teacher⇔student relationship as a context for the development of ways of being in the world that support a young person's capacity to live a thriving life. As a positive and productive force, "desire does not begin from lack—desiring what we do not have. Desire begins from connection; life strives to preserve and enhance itself and does so by connecting with other desires" (Colebrook, 2002, p. 91).

The stories told by the teachers in this study show that in Te Awa High School connection, care and concern, whakawhanaungatanga and

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[70] Chapter 7: Where should the felt pens be?

manaakitanga, are active and essential forces building effective teacher⇔student relationships. Knowing each other, whatever thickness or shape that knowledge comes in, is an important element in opening space for capacities to be performed in the learning process. Being a teacher who builds a professional relationship of mutual knowing and care, has been demonstrated by the teachers in this project to be an influential force in creating a rich context in which the performance of KCs—however tentative—may emerge.

Becomings of a teacher-self

The affective tenor and composition of material⇔discursive elements in the teacher⇔student relationship not only have effects on performances of learning and differentiation for the becoming-student, they also have effects on the becoming-teacher's professional/personal sense of self. Briar[71] spoke of the passion she has for her job, her vocation. Passion that was active in her voice as she talked about seeing the boy from the exam in the playground and hearing how he had carried on and finished the exam. *"It made me feel I was doing my job … Wow. This is why I do what I do".* Sam echoed a similar sense of enjoyment and pleasure in her job when in their research conversation she talked about helping students to continue working in an exam. Tai[72] too spoke with fervour as he described teaching as working in *"the people business".* Ruth[73], observing in Chris' class, appreciated the busy working flow of the room and joked that she and her co-observer *"both want to teach cooking".* The mutual co-constitution of the teacher⇔student assemblage meant that when students were performing learning, teachers' were able to connect to the values, beliefs, and aspirations that inspired them in their work.

In the same vein, when Jonno[74] was so vulnerable entering the classroom, Huia too experienced a vulnerability—which for her attached to her sense of efficacy in the situation: *"He's very fragile so I'm not even sure I'm doing*

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[71] Chapter 6: A nudge in the right direction
[72] Chapter 9: Kōrero ā kanohi ā tinana
[73] Chapter 5: Making fudge in the classroom
[74] Chapter 7: Falling out of friendship

the right thing" (Huia). In a relational meld of co-constitution, mutuality and ethical obligation to others, it is unsurprising that European research has shown a connection between teachers' perceptions of teacher-student moment-to-moment interactions and teacher wellbeing (Claessens et al., 2017). The corrosion of a teacher's professional/personal sense-of-self is not only injurious to that person and the people near to him/her, its effects may be particularly damaging to further teacher⇔student relationships as doubt and frustration undermine belief in his/her capacities. For the sake of all members of the school community, it is therefore incumbent on school managers to develop—as work-safe strategies to support teacher wellbeing—affirmative and respectful ways of speaking professionally together. The ways of speaking together that were developing with the collaborative group in this study (see Appendices X and AA), serve as an example of a structure and curious inquiry process that make space for distressing encounters to be addressed, and also for moments of delight and joy to be acknowledged, thickened and re-membered, contributing to life-enhancing re-constitution of a teachers' professional sense of self.

Dis/entangled encounters

As the earth collapses at an exponential rate into environmental crisis, the future looks increasingly bleak. If life on earth is to continue in any sustainable way, we all—old(er) people and young(er) people—need to do things differently. Old habits will no longer suffice. We need to sense, breathe, and live becoming with/of the world and act in ways that are ethically response-able. To do things differently we need to think differently, and posthuman philosophy offers a way to think creatively and live ethically in an intertwined constantly becoming world.

In order to think differently, this study has brought together whakaaro Māori, posthumanism and the Key Competencies. This is its contribution. The extensive reach of the thesis takes micro-moments of teaching practice to the cutting edge application of posthumanism in educational settings (such as: Davies, 2014; Hultman & Lenz Taguchi, 2010; Pacini-

Ketchabaw, 2012; Ringrose & Rawlings, 2015; Taylor & Hughes, 2016). In this study the taken-for-granted everyday—seemingly mundane—moments of teacher⇔student encounters have been evidenced as rich, messy, hands on and complex *ako* contexts of relational learning.

As I have brought posthuman philosophy and whakaaro Māori to the research stories, I have shattered thinking of Key Competencies as qualities that an individual person holds or achieves. Instead Key Competency actions are recognised as emerging performances of self, produced through the intra-action of human and more-than-human forces and materialities in assemblages. Thinking with an emergent, differenciating, constantly becoming self-in-relationship has implications not only for notions of Key Competency development, but also for the formation of students, teachers, the school and the community. This study has shown there is much to be breathed into education from the philosophy and practices of whakaaro Māori as care, connection and response-ability entangle with performances of becoming with the world**.**

Diffracting the research stories has brought to the fore numerous moments of KC-action, where both students and teachers performed themselves anew. The KC-actions described are very real learning for now, every day, every moment as well as for the future. Noticing the diffractive patterns that emerged when the domains of the KCs met whakaaro Māori called attention to histories, aspirations, land and community as active constituents in the dynamic assemblage of the place of the school. Such noticing also produced new ways of thinking with the notion of KCs. Shifting thinking of the KCs to the whakaaro Māori and posthuman territory of the relational connection of all beings and the earth opens minds and bodies to that connection and the responsibility entailed within it. This study contributes to not only to thinking with key competencies in schools in Aotearoa New Zealand, it also contributes to ways of thinking anew about our (human) on-going world-making practices.

Glossary of Maori terms

In this glossary I hope to convey a sense of the Māori words I have used in this thesis. Titihuia Rewita challenged me not to limit my explanations to single words. She said "A one word translation is not adequate. Māori is multiple, not singular" (personal communication, June 8, 2018). I am aware that the words and phrases I include here may yield only slim understandings of the rich textuality and inter-connected meaning of te reo Māori, and so this glossary is limited in scope. Arohamai.

I have used a variety of sources for this glossary. Where words have many multiple meanings, I have generally entered only those that pertain to the context of this thesis.

Aotearoa: The Māori name for New Zealand.

Ako: To learn and to teach. The mutual and reciprocal context of learning – see Chapter 3.

> Ako describes a reciprocal teaching and learning relationship "where the child is both teacher and learner"[25] and the teacher also learns from the child. Ako recognises that the student's whānau is inseparably part of learning and teaching. (Education Review Office, 2016a, p. 14)

Aroha: To love, feel pity, feel concern for, feel compassion, empathise. (Moorfield, n.d.)

Aroha mai: My apologies, I'm sorry

Awa: A river

Awhiawhi: To embrace, to cuddle (Moorfield, n.d.). Giving support or help. Sometimes shortened to awhi.

Engari te titi: The title of a waiata/song referred to in a research conversation by Mere.

> Engari: But, rather, on the other hand (Moorfield, n.d.)
>
> Titi: the muttonbird or sooty shearwater
>
> **"But rather, the muttonbird"**

Hā: The breath, to breathe, or the sound or tone of speech, (Moorfield, n.d.)

> Essence, breath, taste (Ryan, 1999)

Hangi: A traditional cooking method using an earth oven (Penetito, 2010)

Hapū: Pregnant or sub-tribe (Ryan, 1999). Used in this thesis in the context of layered kinship grouping – whānau, hapū, iwi.

> Consisting of a number of whānau sharing descent from a common ancestor. (Moorfield, n.d.)

Hau: Wind, air, atmosphere (Ryan, 1999)

> Breath, or the vital essence or vitality of a person (Moorfield, n.d.)

Hui: A meeting or gathering

Iwi: Tribe, bone, people, nation, strength (Ryan, 1999)
Used in this thesis in the wider kinship context of tribe/nation.

Ka Hikitia: In education the name for the Māori education strategy of the Ministry of Education 2013-2017, designed to support Māori learning as Māori. Sub-titled in English: Accelerating success.

> *Ka hikitia! Ka hikitia!*
>
> *Encourage and support!*
>
> *And raise it to its highest level!*
>
> *Ensure that high achievement is maintained*

Hold fast to our Māori potential

Our cultural advantage

And our inherent capability

Nurture our young generation

The leaders of the future

Behold, we move onwards and upwards!

(Ministry of Education, 2013, p. i)

Kanohi ki te kanohi: Face to face

Kanohi ki te tinana: In person, in the flesh.

Karakia: A prayer or a blessing

Kapahaka: A Māori cultural performance group, a haka group

Kaupapa: Topic, policy, matter for discussion, plan, purpose, scheme, proposal, agenda, subject, programme, theme, issue, initiative. (Moorfield, n.d.)

Kaupapa Māori: A Māori approach or philosophy, determined by Māori and based on Māori values (Barnes, 2013; Bishop & Glynn, 1999; Macfarlane et al., 2007). See Smith (G. Smith et al., 2012) for an account of the political and theoretical development of the term, particularly in research.

Kete: A woven basket or kit (Moemoeā, 2017)[75]. Often used as a metaphor to describe gathered knowledge: a kete of knowledge

Kia ora: A greeting. Hello. May be used as an interjection showing support. Cheers! good luck! best wishes! (Moorfield, n.d.)

Kiwi: The national bird of Aotearoa, New Zealand.

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[75] (K. Crocket, Davis, Kotzé, Swann, & Swann, 2017)

Korekore: A void. Nothing.

Kōrero: To speak or tell, speech.

Koroua: An elderly man (Moemoeā, 2017). Mere's reference to her koroua meant an elderly male relative.

Kura: A school or place of learning (Penetito, 2010).

Mahi tahi: Working together, collaborating. Mahi = work

> Mahi tahi (or mahi ngātahi) describes the unity of a group of people working towards a specific goal or on a specific task, often in a hands-on fashion. The solidarity that mahi tahi engenders is powerful; it builds relationships that can continue well after the goal has been fulfilled or the project completed.

> In the school context, mahi tahi describes the business of working together collaboratively in the pursuit of learner-centred education goals. (Education Review Office, 2016a, p. 15)

Mana: Prestige, authority, control, power, influence, status, spiritual power, charisma:

> mana is a supernatural force in a person, place or object. … … Almost every activity has a link with the maintenance and enhancement of mana and tapu. Animate and inanimate objects can also have mana as they also derive from the atua and because of their own association with people imbued with mana or because they are used in significant events. There is also an element of stewardship, or kaitiakitanga, associated with the term when it is used in relation to resources, including land and water. (Moorfield, n.d.)

Manaakitanga: Extending care, hospitality, kindness, support to others. A practice protecting and enhancing mana.

> Manaaki embodies the concepts of mana (authority) and aki (to encourage and acknowledge). Manaakitanga describes the immediate obligation and authority of the host to care for their visitor's emotional, spiritual, physical and mental wellbeing. Within this type of interaction there is a responsibility to provide reciprocal support.

> In the school context, these understandings point to the need to care for children and young people as culturally located human beings by providing a safe, nurturing environment. This will include developing and sustaining the language, culture and identity of every student to ensure that they have the best opportunity to learn and experience educational success. The reciprocal nature of manaakitanga also encourages students and their whänau to actively contribute to this success. (Education Review Office, 2016a, p. 14)

Manaaki te tangata manaaki tāngata: To take care of the people. For example, Victim Support in Aotearoa New Zealand is also named Manaaki Tangata. They explain:

> We are there to support and care for the people of Aotearoa. We do this by symbolically using the korowai (cloak) to embrace people with warmth, care and support. We will provide support in ways that restore mana, belonging and well-being. ("Victim Support | Manaaki Tangata," n.d.)

Manu Kōrero: Annual national secondary schools speech competition.

> The contests are intended to encourage the development of skills and confidence of Māori students in spoken English and Māori. … the Māori section is open to all students, but the English section is confined to Māori students only. (Welkin, 2018)

Marae: The "courtyard or open area in front of the wharenui, where formal greetings and discussion take place. Often used to include the complex of buildings around the marae." (Moemoeā, 2017).

Mātauranga: information, knowledge, education (Ryan, 1999)

Maunga: A mountain of special traditional importance (T. Rewita, personal communication, January 23, 2019).

Mauri: The life-force of an object or being (human or more-than-human).

> Life principle, life force, vital essence, special nature, a material symbol of a life principle, source of emotions - the essential quality and vitality of a being or entity. Also used for a physical object, individual, ecosystem or social group in which this essence is located. (Moorfield, n.d.)

Mihimihi: Greetings. Mihi – to greet, admire, respect (Ryan, 1999). On formal occasions mihimihi often follow a structure that makes details of one's life and connection known to the others present.

Pākehā: An identity "that has arisen in relation to Tangata Whenua, the indigenous people of the land. Pākehā today is generally taken to encompass settlers or the descendants of settlers, usually British" (A. Crocket, 2010, p. 66)

Patupaiarehe: Fairy, nymph (Ryan, 1999)

Pono: Truth, honesty (Moemoeā, 2017).

A value that underpins the Education council's code of professional responsibility: "showing integrity by acting in ways that are fair, honest, ethical and just." (Education Council, 2017, p. 2)

Poutama Pounamu: A centre supporting the implementation of culturally responsive pedagogies. Funded by the University of Waikato. Poutama = a staircase, Pounamu = highly valued greenstone, a treasure (The University of Waikato, 2018)

Pūrakau: A myth, ancient legend or story (Moemoeā, 2017).

Rangatahi: Youth, the younger generation

Rangatiratanga: A rangatira is a chief. Rangatiratanga refers to sovereignty.

Roopū: A group of people.

Tamariki: Child/children (Penetito, 2010). Tamariki encompasses all of childhood, and so applies to young people in secondary school. The term rangatahi is often used to refer specifically to youth and so at times is used in preference to tamariki.

Tangata whenua: Indigenous people born of the land where their ancestors lived (Moorfield, n.d.). Māori are tangata whenua of Aotearoa.

Tangihanga: The rites of mourning and farewell for the dead, the tangihanga encompasses more than a funeral in the Western sense.

> … one of the most important institutions in Māori society, with strong cultural imperatives and protocols. Most tangihanga are held on marae. The body is brought onto the marae by the whānau of the deceased and lies in state in an open coffin for about three days

in a wharemate. During that time groups of visitors come onto the marae to farewell the deceased with speech making and song. (Moorfield, n.d.)

Tātaritanga: Analysis, review, appraisal (Moorfield, n.d.)

Tauiwi: A non-Māori person, someone coming from afar (Moorfield, n.d.).

Tautoko: To give support

Te ao hurihuri: The everchanging world

Te Awa: The pseudonym used in this thesis for the place and school of this study. Literally: the river.

Te Kotahitanga: A (now disestablished) programme of educational research and development designed to improve the educational achievement of Māori students. Kotahitanga means: "a collaborative response towards a commonly held vision, goal or other such purpose or outcome" (Bishop, Berryman, et al., 2014, p. 5).

Te Reo: The Māori language

Tikanga: Protocols, customs, correct procedures (Moemoeā, 2017).

Tipuna, tīpuna, tūpuna: Ancestor(s)

Tūmanako: Hope, trust (Ryan, 1999)

Tuakana-teina: the more experienced mentoring the less experienced—as in a peer support group (Bishop, Berryman, et al., 2014). "Literally means older (tuakana), younger (teina) … [often] used to describe a relationship where one party (tuakana) in a particular situation is more knowledgeable than the other (teina)" (Bishop & Glynn, 1999, p. 214).

Urupā: a burial ground or cemetery

Waka: A canoe, an ancestral sea-going vessel. Now used in conjunction with other words to describe modern forms of transport, for instance waka ātea = space capsule (Ryan, 1999).

Waiata: A song. Waiata carry history and matauranga.

Wairua: Spirit or soul.

> [The] spirit of a person which exists beyond death. It is the non-physical spirit, distinct from the body and the mauri. To some, the wairua resides in the heart or mind of someone while others believe it is part of the whole person and is not located at any particular part of the body. (Moorfield, n.d.)

Wānanga: A Māori traditional school, university, or symposium, not necessarily a place. (Penetito, 2010)

Wero: A challenge

Whakamā: Shy, embarrassed, experiencing shame or loss of mana.

Whaiwahitanga: Taking an opportunity, to participate (Ryan, 1999)

Whakaaro: Thought, opinion, plan, understanding, idea

Whakaaro Māori: Thinking with Māori values, understandings and knowledge.

Whakapapa: Genealogy that provides cultural identity by identifying and linking relationships.

Whakatauki: A proverb or saying.

Whānau: Extended family or family group. (Moorfield, n.d.)

Whānaungatanga: Relationship, kinship (Ryan, 1999).

> Whanaungatanga affirms the centrality of extended family-like relationships, along with all the "rights and responsibilities, commitments and obligations, and supports that are fundamental to the collectivity". Whanaungatanga also reaches beyond actual whakapapa relationships to include people who, through shared experiences, feel and act as kin. Whanaungatanga relationships are reciprocal: the group supports the individual with the expectation that the individual will support the group. (Education Review Office, 2016a, p. 14)

Whakawhānaungatanga: the prefix whaka means to cause, or to (Ryan, 1999).

> Whakawhanaungatanga describes the process of establishing links, making connections, and relating to the people one meets by identifying in culturally appropriate ways, whakapapa linkages, past heritages, points of engagement, and other relationships. Establishing whänau connections involves recognising kinship in its widest sense. (Education Review Office, 2016a, p. 14)

Whare: House, home.

Whenua: Land

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Appendices

Appendix A: Information for participants

Information for Participants

Doctoral Research Project: *Supporting Secondary School teachers to foster the development of key competencies in incidental and unplanned moments*

Name of Researcher: Judith Graham

Supervisors: Assoc. Professor Kathie Crocket and Dr Elmarie Kotze

Affiliation: The University of Waikato, School of Human Development and Movement Studies

Cultural Support: Titihuia Rewita-Kelly (Whakatohea, Tuhoe, Te Whanau-A-Apanui and Ngati Porou)

Contact: jag9@students.waikato.ac.nz or 021 142 3859

Information about the research project

My interest in exploring how understandings of the Key Competencies may shape teacher interaction with students grew through my involvement in a TLRI research project that looked at how School Guidance Counsellors contribute to student learning. That project demonstrated that learning does indeed take place within the counselling room – a place where the student's life and their capabilities for engaging with that life are the subject of investigation and learning.

In this research I have chosen to focus on 'incidental and unplanned' because I have a strong sense of wanting to make visible all the 'other' learning that occurs in a school community (outside of formal planned teaching). There are many moments both within and outside the classroom where students (and teachers) are invited into the performance of Key competencies – and it is the developing of students' capacity to

respond to real-life authentic situations that the NZ Curriculum asks us to focus on.

And it occurred to me recently that maybe, just maybe, most of what happens to us in life is incidental and unplanned – and it's how we respond to these moments (as well as the planned and thought through) that makes up the quality and tenor of our lives, that helps us to live a "decent life as active citizens who shape society for the good of all[76]. As John Lennon said: "Life is that thing that happens when you're busy doing something else".

This research will be investigating how teachers contribute to the development of key competencies in all those 'other' moments at school – those moments that you don't plan for. For example: when you're on your way to the staff room for a cup of tea, and a student comes up to you and asks for an extension on their assignment; or students complain about the lack of things to do at lunchtime; or a rich discussion starts in class which is quite off track from the topic you planned.

The project will gather information in three ways, formally through semi-structured individual interviews and a series of focus group meetings, and informally through those 'incidental' conversations and moments that occur daily as we meet and talk together. If you wish, you may be interviewed and also take part in a focus group. Data gathering will be focussing on your experiences as teachers with these notions of key competencies and how you see them play out around you in the school community. The data-gathering phase of this research will be completed by the beginning of 2017.

We will be co-constructing knowledge about key competencies together. As an action research project, we will think, practice, reflect, think, practice, reflect … …. in a series of recursive cycles. Each cycle will

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[76] Hipkins et al (2014) Key competencies for the Future, p. 99

inform the direction of the next, and thinking about where this takes us will be part of the research.

The following questions structure the research inquiry:

- ❖ What particular understandings of Key Competencies are available to secondary school teachers?
- ❖ How might these understandings of Key Competencies be further enhanced and developed?
- ❖ How do and might secondary school teachers contribute to student's development and use of Key Competencies within the informal milieu of secondary school life, both inside and outside the classroom?
- ❖ How might cultural understandings and knowledge of Key Competencies be enriched and utilised to inform the relational context of Key Competency development?
- ❖ How does investigating student behaviour through the lens of Key Competency development effect teachers' perception of and management of behavioural challenges in schools?

If you would like to participate in this research there is a separate consent form for you to sign that has further information about your rights and responsibilities as a participant, confidentiality, and access to research materials.

I am happy to answer any questions you may have about this research or if you wish you may contact my University Supervisors.

Associate Professor Kathie Crocket   ph: 07 838 4466 ext. 8462
                                        Email: kcrocket@waikato.ac.nz
Dr Elmarie Kotze   ph: 07 838 4466 ext. 7961
                                        Email: elmariek@waikato.ac.nz

Judith Graham
M. Couns MNZAC

Appendix B: Individual conversation consent form

Informed Consent: Individual Interview

Doctoral Research Project: *Supporting Secondary School teachers to foster the development of key competencies in incidental and unplanned moments*

Name of Researcher: Judith Graham

Supervisors: Assoc. Professor Kathie Crocket and Dr Elmarie Kotze

Affiliation: The University of Waikato, Human Development and Counselling Department

Contact: jag9@students.waikato.ac.nz or 021 142 3859

Individual Interviews

I invite you to be part of this research project by taking part in two separate interviews. Each interview will take approximately 60 minutes of your time, and will be conducted four to eight weeks apart. The interviews will be audio-recorded.

The interviews are semi-structured in format. That is, I have a schedule to follow but we are also free to follow thoughts that interest us that arise in the course of the interview and are rich for exploration.

In the first interview we will be looking at what you already know about key competencies, where you think those understandings could be enriched, any special cultural knowledge you might have to add to these understandings, and what you have noticed in your practice around their development.

I will then transcribe the interview and give you a copy to read and reflect on. This will be in a sealed envelope, which I will either hand to you directly or put in your pigeon-hole in the staff workroom.

The second interview will be an opportunity to think about what you might have noticed since our first interview and have reflected on since reading the transcript. What stands out or has arisen for you?

You are also welcome to note any thoughts you may have that are triggered by the interviews – and may decide to give me any or all of this written material.

Noticings, practice examples, thoughts and insights from the interviews will contribute to the content of the initial focus group meetings.

Consent

You may withdraw your permission for me to use this material up until two weeks after our final interview (when it will inform the direction for the first round of focus groups). You do not need to give me any reason for withdrawal, and your contribution will no longer be part of the research materials.

Privacy and anonymity

I will endeavour to keep comments anonymous by not referring to any participant by name, or by using a pseudonym of your choice. However because we work in a small teaching community it may be that remarks you have made will identify you to others in the school, either in the focus group or in written outcome material. In each interview we will note any comments that are particularly sensitive that you may wish me to modify so that they cannot be attributed directly to you, or that you may not wish me to use at all. I will seek your approval of any modification before I use it. You will also have two weeks after the completion of the interviews to raise any concerns with me. I will take care to guard your privacy, and will consult with you if I have any doubt.

As we will be using examples of practice that involve students, I have an ethical obligation to guard their privacy as much as I can. I will fictionalise aspects of their descriptions so that no student is easily identifiable to others in the school community.

While I cannot guarantee what others will do with material we discuss, I will do all I can to promote care and respect for participants in the groups and the wider school community. The limits and constraints of confidentiality and privacy will be fully discussed and negotiated with each focus group.

Access to completed material

I will write a brief report for all interviewees on the outcomes of the interviews and how I expect they will inform focus group work. Once the focus group meetings are completed, I will write a progress report for participants twice a year. From time to time I will present parts of the research work to a variety of settings such as workshops and seminars. I will let all participants know by a message on Kamar about any published outcome material and make a copy of this available in the school. When the thesis is completed, I will give a copy to the school. An electronic copy will also be available through the University of Waikato's digital repository: Research Commons.

Concerns

If you have any concerns during the course of this research that you are not able to talk with me about, you may contact my University supervisors:

Associate Professor Kathie Crocket   ph: 07 838 4466 ext. 8462

      Email: kcrocket@waikato.ac.nz

Dr Elmarie Kotze   ph: 07 838 4466 ext. 7961

      Email: elmariek@waikato.ac.nz

_____

Consent

I have received an information sheet on the research, and have discussed this and this consent form with the researcher, Judith Graham. I have had the opportunity to ask questions which have been answered to my satisfaction.

I agree to participate in this research and understand I may withdraw completely, or withdraw some of my material up until two weeks after the final interview when it may be used to inform focus group work.

Name

_____

Signature: _____

Date: _____

Researchers Signature: _____

Appendix C: Individual conversation interview schedules

Individual Interview Schedules

Semi-structured

First Interview

Consent form signed

Copy of pp 12/13 of NZ Curriculum available to refer to

The following questions are a guide. They may not all be asked in an interview.

1.   Understandings of the Key competencies of the NZ Curriculum
    a.   What do you know about the KC's of the NZ Curriculum?
    b.   How were you introduced to them and, if you can remember, what were your thoughts at the time?
    c.   Have your thoughts about the KC's changed at all over time?
    d.   If so, what might those changes be?
    e.   How much relevance have the KC's had (up until now) in your thinking about your teaching and relationships with students?

2.   How might your current understandings of the KCs be further enhanced or developed?
    a.   Do you see further exploration of the KCs as relevant, or would you rather focus on other aspects of pedagogy?
    b.   What links do you make with the KCs and their inclusion in the curriculum, and other initiatives in the school (e.g.: Teaching as Inquiry, PB4L, Restorative Practices, Iti Pounamu, Haumaru)
    c.   What might you like to explore further? Is there one KC – or one aspect of the KCs in particular that attracts you?
    d.   For you – what would be an effective way to enhance this exploration?
    e.   What might work for other staff ?
    f.   What might get in the way of exploration?

g. What might enhance exploration?

3. Contributing to student's development of the KC's in the informal milieu of secondary school life – both within and outside the classroom
    a. What thoughts do you have about informal learning that happens in school?
    b. Are you able to give me any examples of informal learning?
    c. If you were to keep a KC lens over informal interactions with students – what differences (if any) might that make to you in terms of:
        i. Your relationship with students?
        ii. How you manage behavioural difficulties or challenges?
        iii. Your relationships with the wider school community?
        iv. Your satisfaction with your job? Your sense of yourself as a teacher – your professional identity?

4. Cultural understandings of the KCs
    a. What knowledges from Te Ao Maori do you think would enrich our understandings of the KCs?
    b. Is there anything in the KCs as described in the NZ Curriculum that you believe is particularly important – either to yourself personally or to this local area?
    c. How might these knowledges, if widely known in our school, contribute to students (individually and/or collectively) and the wider school?

Check if there is any sensitive matter in this interview that the participant doesn't wish to be transcribed.

Set time-frame for transcript of interview to be available

Set time for second interview

Remind interviewee that if they wish to note thoughts, reflections and bring them to the next interview they may do so

Second Interview

1. Having read the transcript of our first interview -is there anything that stands out as something you'd like to discuss?

2. Have you had any further thoughts about Key Competencies and how they are developed and fostered in students

3. If not – can you say what might have got in the way of thoughts coming?

4. If so – what might have supported this thinking/reflection?

5. Have you noticed any differences in how you reflect on informal interactions with students?

6. Have you noticed any differences in how you behave in these informal interactions?

7. What might these differences be? Are they differences you wish to continue/develop?

8. As you know, the second phase of this research is to work with focus groups, noticing moments of practice and exploring together the development of KCs in these moments. What are your thoughts about what teachers in this school might be most interested in exploring first?

9. Do you have any jounalling or notes that you'd like to contribute to the research materials?

10. Do you have a 'moment' with a student that you would like to contribute to the research materials?

11. Anything else you'd like to say?

CHECK

Pseudonym???

What is the 'Why' in your philosophy of education?

What do you think students need to be prepared for the future? What is important to you that students learn to be able to succeed/flourish in life?

How do the KCs sit alongside Maori values of what's important?

We've talked about how you bring the KCs into day-day practice – since we talked have you thought of other examples?

Appendix D: Example of accompanying letter returning transcript to individual participant

Dear Mere,

Thank you again for giving so generously of your time and knowledge to this research project.

Enclosed is a copy of the transcript of the conversation we had before the school holidays. I have left out some of our ummms and ahhs etc. so that it reads relatively smoothly – but I haven't changed any of the sentence structure.

If there is anything that you would like to change or modify in any way – then please let me know. I may have misheard/mis-spelt some the Reo you used, so would appreciate you checking that. To save you time I've made a note in the margins on lines where I'm not sure I have heard/spelt correctly.

If there is any material you wouldn't like me to use in this research, again let me know and I will bracket it off within the transcript.

In case you don't have time to read the whole transcript, some of the ideas I'd appreciate exploring further with you in the second interview are:

- 'knowing who you are' (page 2, line 43 and also page 17, line 673 where you speak about the effect on you when kids don't know who they are)
- 'encouraging' – how you/we might do that (page 3, line 99)
- the effects on the students of powerful knowledge sharing (page 11, line 427)

After you've had a chance to look through this, I'll catch up with you so we can schedule our second interview.

Kind regards

Judith

Appendix E: Proposal to DP to invite teachers from the TAI group to take part in the research

Research Project: An inquiry into how secondary school teachers foster the development of the Key Competencies in incidental and unplanned moments

I am interested in what teachers know and understand of the Key Competencies, and also how these understandings play out in daily interactions with students in informal and unplanned moments. Or to put it another way: interactions with students that arise naturally in the day-day life of a teacher/school, that are not structured through formal lesson planning but nevertheless are learning opportunities.

I would like to invite teachers in the Teaching as Inquiry professional learning group to take part in the second phase of this research: Generating material within a collaborative group setting. I plan that in the group we will tell stories of moments of practice, and examine these to notice Key Competency development and what might be fostering/informing this development. An important aspect of this collaborative inquiry will be the 'troubling' of habitual or unexamined ways of thinking and practice, and the construction of new knowledge by the "mutual telling and retelling of stories by people who are living those stories" (Bishop & Glynn, 1999, p. 127) through the nourishing of 'good' conversation (Hancock et al., 2006).

The beauty of communities of inquiry (or focus groups) is the synergy that is generated, and we don't know quite where that will lead – whatever comes up in the group will be rich material. I have planned to follow a structure in our inquiry times together – but we can review this as we go to see how it is working and if we need to adapt it.

Proposed Structure

Session 1:

- Introducing the project to the group.
- Show video: Bridging document: A 23 minute video which introduces some of the background research which informs the project, and shows where this work will make a contribution to the field of educational research. In the video, actors give voice to thoughts about the Key competencies and tell stories of practice already gathered during individual interviews. The purpose of the video is to act as a "bridge" between the two phases of research, and to seed the discussion of the group.
- Negotiation of agreement, of privacy and confidentiality, audio/video recording of meetings
- Give out participant information and introducing of consent forms (ask that these be signed before the next meeting)

Subsequent meetings:

- Review: What we have been looking at so far – what came out of last meeting, brief update on research so far (transcripts of the previous group meeting will be available two weeks prior to the next meeting).
- Reflection: bringing examples of practice and thinking together about them.
- Round: What I've been thinking about. What might I like to take from today to explore further.
- Any new learnings/wonderings/thoughts/ideas?
- Reminder re: privacy, checking out everyone is OK with what we have done and where we are going.

Final meeting:
- Review/reflection of the research process:
- What might be some learning you will take away from being part of this collaborative group?
- Have there been any differences you have noticed in your practice?
- How has knowledge generated in this group spread into the wider school?
- When you think back to your understandings of the KCs at the beginning of the year – is anything different now?
- What recommendations might you have for other teachers who are thinking about the KCs?

- Is there anything else you'd like me to know as a researcher?

Ethical Points

It is important that no-one feels compelled to take part in this research because they are a member of the TAI professional learning group. If there is hesitation, group members need to be able to opt into another PLG.

Or … I can ask those who wish to take part if they are willing to meet on another day/time?

Or … we can form a sub-group of the PLG, start PLG meetings altogether and then break into our own meeting

There may be other staff who wish to take part in this research and will need to be given the option of joining the PLG group.

Appendix F: Collaborative group consent form

Informed Consent: Collaborative Group

Doctoral Research Project: *Supporting Secondary School teachers to foster the development of key competencies in incidental and unplanned moments*

Name of Researcher: Judith Graham

Supervisors: Assoc. Professor Kathie Crocket and Dr Elmarie Kotze

Affiliation: The University of Waikato, School of Human Development and Movement Studies

Cultural support: Titihuia Rewita-Kelly (Whakatohea, Tuhoe, Te Whanau-A-Apanui and Ngati Porou)

Contact: jag9@students.waikato.ac.nz or 021 142 3859

Collaborative Learning Group

I invite you to be part of the research project *Supporting Secondary School teachers to foster the development of key competencies in incidental and unplanned moments.* I am interested in what teachers know and understand of the Key Competencies, and also how these understandings play out in daily interactions with students in informal and unplanned moments. Or to put it another way: interactions with students that arise naturally in the day-day life of a teacher/school, that are not structured through formal lesson planning but nevertheless are learning opportunities.

I would like to invite teachers in the Teaching as Inquiry professional learning group to take part in the second phase of this research: Generating material within a collaborative group setting. I plan that in the group we will tell stories of moments of practice, and examine these to notice Key Competency development and what might be fostering/informing this development. This research will therefore become a major focus of the Teaching as Inquiry PLG in 2016. My thinking is that the group becomes a forum to play with ideas, co-construct knowledge, and think deeply about practice. The synergy of group thinking can lead us

in directions that would not be contemplated by just one researcher. I see your role in the group as co-researchers, and while I have a structure in mind, what comes out and where that leads us in our thinking and practice cannot be predicted.

You will be asked to bring stories of moments (vignettes) with students that were unplanned and we will consider these in light of the Key Competencies.

I will audio-record each group meeting, and the transcripts will be available to you before the next meeting to remind you of the previous discussion. You are also welcome to note any thoughts you may have about this research between the group meetings. If you decide to give me any or all of this written material it will then become part of the research data. The meetings will follow a recursive cycle as noticings, practice examples, thoughts and insights from each meeting will contribute to the direction of the next.

Consent

You may withdraw from the group at any time. You may also withdraw permission for me to use an example of practice or any reflective writing you have contributed. As knowledge will be co-constructed in the group, you will not be able to withdraw contributions made to the group discussions.

You do not need to give me any reason for withdrawal.

Privacy and anonymity

There is a tension between your need for privacy and the desire to share knowledge. One of my hopes for this research is that interest in key competencies will spread into the wider school, and so we need to be free to continue to think and talk about what has come up outside the group. We will discuss and negotiate this issue in our first group meeting, and will return to it at each meeting to check we are still comfortable with our

agreement. We will be drawing on data gathered during the individual interviews, and while I will do all I can to protect individual's privacy, we will need to treat this data with respect as we make use of it in the groups.

As we will be using examples of practice that involve students, I have an ethical obligation to guard their privacy as much as I can. It will not be OK to mention students by name outside the group. When writing and presenting research material I will fictionalise aspects of student and staff descriptions so that no individual is easily identifiable to others in the school community.

While I cannot guarantee what others will do with material we discuss, I will do all I can to promote care and respect for participants in the groups and the wider school community.

When presenting research materials, I will endeavour to keep comments anonymous by not referring to any participant by name, or by using a pseudonym of your choice. However because we work in a small teaching community it may be that remarks you have made will identify you to others in the school. In each group meeting we will note any comments that are particularly sensitive that you may wish me to modify so that they cannot be attributed directly to you, or that you may not wish me to use at all. I will seek your approval of any modification before I use it. You will also have two weeks after the completion of the interviews to raise any concerns with me. I will take care to guard your privacy, and will consult with you if I have any doubt.

Access to completed material

I will update the groups on the progress of the research each time we meet. Once our meetings are completed, I will write a progress report for participants twice a year. From time to time I will present parts of the research work to a variety of settings such as workshops and seminars. I will let all participants know by a message on Kamar about any published outcome material and make a copy of this available in the school. When

the thesis is completed, I will give a copy to the school. An electronic copy will also be available through the University of Waikato's digital repository: Research Commons.

Concerns

If you have any concerns during the course of this research that you are not able to talk with me about, you may contact my University supervisors:

Associate Professor Kathie Crocket   ph: 07 838 4466 ext. 8462

                                        Email: kcrocket@waikato.ac.nz

Dr Elmarie Kotze   ph: 07 838 4466 ext. 7961

                                        Email: elmariek@waikato.ac.nz

Consent

I have received an information sheet on the research, and have discussed this and this consent form with the researcher, Judith Graham. I have had the opportunity to ask questions which have been answered to my satisfaction.

I agree to participate in this research and understand I may withdraw completely, or withdraw some of my material up until two weeks after the final interview when it may be used to inform further group work.

Name: _____

Signature: _____

Date: _____

Researchers Signature: _____

Appendix G: Collaborative group discussion points re: confidentiality

Collaborative Group Discussion Points re: confidentiality

1.   What are the possible advantages and disadvantages of speaking about our group discussions to others?

2.   How will we maintain respect for each other and our developing knowledge and also be free to share this with others? (if that is what we decide)

3.   Do we want to acknowledge individuals by name when speaking outside the group – or phrase it as: "we were talking", "there was some wondering" ….?

4.   As we will be talking about interactions with students – how will we maintain student's privacy?

5.   Would the following guidelines be helpful?
- speak as though the original speaker is present
- acknowledge that our knowledge is growing and developing
- ask permission to bring back others experience and ideas to the focus group
- check out if people wish to be named or to be anonymous if you are talking about their ideas outside the group?
- at the end of each meeting, anything that anyone prefers not to be on the record and available to others in conversation could be noted

Appendix H: Session 1 March plan

Structure of 1st Collaborative Group session

1. Introduction – review of last meeting,
   a. Review of last meeting
   b. Consent forms to be signed (or returned)
   c. Explanation of research
   d. Take-away handout – with today's process, and notes that can take back to Dept

2. Today's process – which I expect we'll follow next meeting as well.
   a. I've asked Rachael if she minds telling a story which she told me a couple of weeks ago, and I will interview her.
   b. The purpose of this is to introduce a process we can use in this research, of collecting stories and delving deeply into them. I'm focussing on bringing a particular method of inquiry to your attention – that is – asking curious appreciative questions, and also to invite you to engage in the inquiry process.
   c. We'll be using two different strategies of inquiry – a sort of 'double-fold' or 'ripple out' method. The first is watching my inquiry of Rachael's story, and then we'll take some time to explore your own responses to that – so that part is more of a facilitated self-inquiry.
   d. Later on I'll write up the stories and do the work of theorising around them – we don't need to worry about that now.
   e. This is a process that bounces back and forth and invites everyone to connect to the story that's told.
   f. After the interview – which will take 10-15 minutes – I'll be inviting you to respond to one thing has resonated particularly strongly for you in the story – something you have made a connection to – and I'll explore that briefly with you. I'll allow 25-30 minutes for this further inquiry so we may not have time to hear everyone today – so I'll make sure that next time others get a chance to speak.
   g. Then I'll ask Rachael a few more questions about what this process has been like for her and wrap up by 4.30.

3. For participant/witnesses. Handout blank paper – for recording responses. Fold it in half lengthwise – on one side record questions I ask – on the other the responses Rachael gives. You won't be able to record everything – but note down things that seem significant to you – that call forth a response in you.

4. Reminder of confidentiality
   a. Interview Rachael

  i. We're going to take 10-15 minutes to hear and explore this story. All you have to do is tell the story – I'm going to be asking questions that bring forth more detail – that 'thicken' it out. Questions that bring other things forward that don't come through in the first telling.

  ii. Rachael tells story and I ask questions

  iii. Other participants – witnesses to the story-telling - record questions and responses that resonate for them.

5. Reflection/witnessing round

  Invite participants to comment one at a time, explore with each witness the effect on them of witnessing the story-telling.

 a. Think of a word, phrase or a sentence that particularly resonated with you (WPS). Just select one WPS – and repeat it. This then becomes credible because it's connected to the words that were spoken in the story-telling – it's not assumptions or judgements.

 b. Questioning of participant witnesses e.g.:

  i. What can you tell me about that WPS? Why do you think that particularly stood out for you?

  ii. What is it in your own life – in your own teaching experience that had you notices those particular words?

  iii. Is there any way in which these words are helpful to you and your teaching practice?

  iv. What does it say about what is important to you in your teaching?

  v. Now that you pause and notice – what might you like to take away from this conversation?

6. Back to Rachael – what has it been like to hear these responses

7. Wrap up – any comments on todays process (not the content), any other questions about the research – e.g.: where we are going with this, what do take back to dept etc.

Appendix I: Session 1 March handout A

Accounting for pedagogical practice

This research is about the Key Competencies – but today I want to reduce the 'overwhelmingness' of last time!

It is about noticing competencies, but I want to background that for a while because if we are just looking for competencies we're going to miss the richness of the stories and risk losing what is actually going on, because we'll be imposing structures on top of the stories. So what we're going to do is this inside-out thing from your experiences as teachers so we're looking at your stories of practice.

So we're looking at pedagogical practice that is often unexplored and can be taken for granted. This work is giving us an account of a huge part of practice that is often hidden or invisible.

Under the umbrella of 'Ako' – we will inquire into everyday, incidental, unplanned moments. These are day-day interactions with students in which learning is happening but is often not recognised. By inquiring deeply into the richness of each moment, looking in micro-detail, we make space to uncover both pedagogical knowledge and practice and to notice the learning that is made available for the student and also for the teacher.

The moments I'm asking you to bring are the ones where you have noticed some learning, some competency – for example: you think "oh yes – I can see the kids participating." It may be a process of learning a competency, or enacting a competency.

And then we'll explore – closely inquire into - those moments to 'thicken' them and develop a rich account. In my theorising, analysing, and then writing up – the Key Competencies will come up – but for now I want us to

look at what is actually happening and going on – what we can notice together in those moments.

Michael White, who developed Narrative Therapy, called this 'exoticizing the domestic' – that is, taking things that might seem an everyday, taken for granted practice, things that might seem meaningless and then asking what the meaning is. For example, what happens when a teacher says to a student "Thank you for letting me go first" – rather than assuming that it's right to go ahead? What does that teach that young man about his responsibilities as a man in the community if his teacher as a man does that? This isn't a formal planned lesson, but it is a moment of participation.

We will hear a story, and then taking a stance of curiosity and 'appreciative inquiry' ask questions that explore the detail of what is happening, and also what meaning the story-teller/teacher makes, in the moment and/or on reflection about what was happening at the time or has happened.

We then reflect on our own responses to the story. This invites into self-inquiry: e.g.: What is it in my own experience that has me noticing that particular thing, and now that I pause and do that – what might I take away for myself from this conversation?

This doubled method of inquiry – the telling and re-telling - acknowledges the power of stories to connect us to our own experience.

Appendix J: Session 1 March handout B.

Notes to help you explain the Teaching as Inquiry project to your Department

- We are inquiring into everyday, incidental and unplanned moments
- In doing so we are making visible, and inquiring into pedagogical practice that is often unaccounted for.
- We will be looking in micro-detail at stories of practice to notice the learning that is occurring.
- We are 'exoticising the domestic' – looking for the meaning that is in the taken for granted.

Method/Process

The method we are using acknowledges the power of stories to connect us all to our own experiences. There is a 'double-fold' of telling and re-telling – like ripples on a pond.

- One person will tell a story in which s/he recognises a competency or competencies as present.
- One person explores the detail of the story with the story-teller – using appreciative inquiry.
- Witnesses to the story-telling then reflect on their own responses and connection to the story and what they will take-away from listening to it.

Appendix K: Session 1 March Returning materials letter

29 March 2016

Hi everyone,

Thanks for agreeing to be part of this research project as part of our Teaching as Inquiry group. I've transcribed our meeting of 8 March, but I haven't made a copy for everyone as it's 21 pages long! You're very welcome to read it if you wish. I've left a copy in the Guidance room, just ask me or Titihuia for it. As it contains confidential information, please return it to us when you've read it.

In this pack you should find:

- Consent form. Either a copy of the one you've signed, or a clean form for you to sign and return to me asap.

- For those who missed last months meeting I've included the sheets that were handed out then ie: notes you might like to take back to your department, and 'accounting for pedagogical practice' – a summary of our inquiry

- Notes from our meeting 8 March

Thanks

Judith

Appendix L: Session 1 March Note on transcript envelope

Teaching as Inquiry: Research Collaborative Group

Transcript of Meeting 8 March 2016

Please take care of this transcript and keep it **confidential**. This is only to be read by people in the research group.

When you've finished reading the transcript, please return it to me or Titihuia. Feel free to write comments on it if you want to.

Please also put your initials on the envelope so I know who has read it.
A WARNING before you read: Most people who read themselves in transcripts hate it. We speak quite differently to how we write, and the spoken word can often read quite muddled and inarticulate. So – be kind to yourself when you read what you said – everyone seemed very 'on to it' when I listened to the recording.

Thanks again for agreeing to be part of this research project.

Judith

Appendix M: Session 1 March Returning material notes

Feedback Notes from the TAI Collaborative Group meeting
8 March 2016

First of all, I'd like to say a big thank-you to everyone who was part of the research group on the 8 March. It was our hottest day of the year, and because we had decamped to the relatively cool air of the staffroom there were a lot of interruptions as others came and went. However, you all managed to keep focused, and (it seemed to me) interested through till 4.30. To me thats a testament to the commitment and care you all have for our students – and how sustaining it is to witness and celebrate students and teachers doing well.

My supervisors have asked me to tell you how much pleasure they took from reading the transcript. They took pleasure in you taking pleasure with Kath taking pleasure in what happened in that moment, so much so that they wanted to be part of the conversation!

I have been playing with what to feed back to you – as there is so much rich material in the transcript. So I've picked out just some examples of **how** we inquired deeply into the story Rachael told. How we noticed and commented on parts of the story that resonated with us, and some of the questions we used to explore this 'unplanned moment' together. By sparking off each other and responding to the story from our own experiences – we were able to notice a number of other facets at play that weren't apparent in the first telling, thus collaboratively generating new knowledge about Rachael's class as a whole as well as individuals within it. I've included some of Rachael's noticing from her first telling of the story, comments and questions to her, and then further noticing and reflection from the whole group.

"Inquirings"

- I wonder how they got where they did?
- Well, what should we do now?
- It transpired that just my noticing the pens probably gave them all a bit of a 'phew' moment
- They would be expecting me to manage the situation diplomatically
- … and what happened to the class … what did you notice when J laughed and when it was managed in this way that wasn't the worst possible …?
- I think they were all blown away – they were all stunned
- So what do you think was going on to make the best possible happen?
- For me it's the fact that J didn't … react adversely
- She's also acutely aware of being picked on … she's quite sensitive to that
- I was really excited because I thought "Wow" we are making change happen
- And what would they have noticed in you – when you became aware of what was going on?
- How would they have noticed that you were holding your body? Or the expression on your face? What might they have seen?
- … it was her peers actually in the situation itself and what J did that made the difference
- There was no hiding the fact that he was the dobber … so I was really encouraged by that …
- … wanting to fit in in some way??
- I was blown away by the shift in J – just the shift in response
- It's OK to tell about it … it's OK to talk, it's OK to feel safe, we're feeling connected, we feel we're going to be listened to …
- Who's who in the class – to see that challenged is really cool
- I really like D – I think he's an amazing kid …
- Not somebody trying to be more dominant than him, but just kind of making a decision about what's right
- Perhaps D didn't like the idea that somebody was trying to change the culture of the class … he liked the stability of the class
- That just made me admire D – the fact that he couldn't care less, he was going to stand up for what he actually believed in
- I think the culture of you form class is caring enough and … the environment is like a sense of belonging and that has evolved so quickly … and that can have some really good flow on end things
- I think it's that openness – and people are treated … equally
- Have you ever had to talk to them about J in particular?
- So for me it's like your little family – so nobody messes my family
- I found that it's pretty inclusive environment so there is that sense of belonging … and then I also thought that even though they were silent, that was silent protection of J … their silence actually spoke more than …

- Your calmness kept it … they were all waiting for you
- Have you seen them be protective of him in other environments?
- They look after one another
- I think it's about openness perhaps
- Many times I've walked into a situation … … everybody looks to you waiting for you to solve it
- It's an ideal opportunity to coach the kids to learn to solve
- How did you discover the other stuff? … … experience!
- You just get that feel don't you
- I think that pause – pause – look around – and then say something
- But that's really perceptive though … you read it so beautifully … you can't take that opportunity if you can't read it

I was thinking that for our next meeting we continue to explore one story together in a similar process as a large group, and then maybe next term we try breaking into two smaller groups, so more people will have a chance to experience being the story-teller. For now – I hope you enjoy the experience of inquiring deeply into those unplanned moments with students.

Judith

Appendix N: Session 2 April Returning materials letter

20 May 2016

Kia ora koutou,

Once again – many thanks for participating in our research conversations.

In the group's conversation last month, we talked about an incident in a classroom where a fight had occurred. My supervisors again appreciated the rich discussion, and as we talked about the transcript we noticed that the shock and disappointment of the fight made it difficult to see the competencies that were present – both in the story itself and also in the telling and hearing of it.

In this 'returning of the material' to you, I thought I'd do so in a way that demonstrates a part of how I will be analysing the material we generate in this research project. The method is called "Diffractive Analysis", and works on the theory that we gain new insights and understandings from material by 'cutting' it in many different ways.

In this instance, I have put the relational lens of "Care and Compassion" over the transcript and created an imaginary vignette. While I've 'massaged' the text a little – to help it flow and to create a readable story for you – whatever is said in the vignette came from the transcript. By reading the transcript in this way – with this lens – the care held for and acted out by teachers for students, students for teachers, and teachers for teachers is more easily seen. This then brings forward competencies for further thought that may have previously been overshadowed by all the other things that were happening in the story.

Of course, the full transcript is available for you if you would like to read it as well. Just let me know.

Nga mihi

Judith

Appendix O: Session 2 April Returning materials notes

Negotiating Our Way Through

Noticing Care and Compassion when Disappointment makes a take-over bid

It's late on Thursday afternoon when Jack comes into the staffroom. As usual, he looks slightly dishevelled and harassed; it's proving to be a long week. Margery plonks herself down next to him. Stretching her long legs she leans back in the chair and turning to him says: "How's it going?"

JACK: "I've just had the first classroom fight of my career."

MARGERY: "Really – your first. What happened?"

JACK: "Barney was working really well, but then Xavier called him a retard – so he had a go at him."

MARGERY: "Gosh. Are you OK?"

JACK: "I'm a bit shocked I think. I stepped in and got hit in the crossfire. I'm not hurt though - it wasn't deliberate – just a bit blown away that it got to that point."

MARGERY: "Yeah – well that's a natural reaction – it is quite shocking."

JACK: "Yeah … well it's just so disappointing. You know how I've been focussing on pitching the work for those boys – making it really kinaesthetic with small amounts of writing. I've been working really hard on it - and I've been impressed with how well the whole class has been going. They were doing so well – they're such a lovely class. We had a co-construction meeting the other day and everyone was pleased – we

thought they were settling down really well. And – you know - Barney was so engaged in his work today before this happened – he genuinely was."

MARGERY: "mmm – yeah – Sally was saying how she's noticed those kids have settled down. That must be so disappointing. I mean it's disappointing when you – you know – have spent ages preparing a lesson and within 10 minutes it just turns to custard and then you think - "Oh wow – what's happened here."

JACK: "You're right there. And poor old Barney – I really feel for him. He was trying so hard and now he's stood down for a day. You know – even though he was in trouble – he was really proud of the fact he didn't actually hit Xavier. All he did was get up and tell this boy he didn't like what he was saying, but the other boy got upset at the way he stood over him …   … he knows that if he'd ignored that comment things would be different – but that's hard for a 13 year old boy."

MARGERY: "Well it's easy for him to say it, but it's hard for him to do it."

Alan comes into the room, gets himself a coffee and walks over to Jack and Margery.

ALAN: "I've just finished talking to Xavier's family. D'ya want to come to my office to debrief a bit – or are you OK to stay here – there's no-one else around."

JACK: "I'm happy to stay here. I was just telling Margery what happened. You know – it happened so fast – went from great to woooh – just like that."

ALAN: "Yeah – it can happen so fast it gets you by surprise. I think in this situation it's something that could have happened to any of us. You know you can't always control what goes on. If you've got a class of 20 plus children – and you're sitting with someone else – you can't be looking at

everybody. And you don't always know what's gone on before they come to your room do you."

JACK: "Yeah – I know, but he'd been working so well."

MARGERY: "So – he was managing himself well in his academic work – but in a sense he may not have the skills to manage himself when it comes to situations like that. So it's more that social – being able to manage his anger in those situations, and having those skills to … when a situation like that happens to be able to draw upon. He – obviously his instinct is to – you know – manage it in the way that he thinks it should be managed, rather than seek help to – I guess help with that situation."

ALAN: "Yeah – he responded so quickly to the taunting. The whole thing for me has been about 'in the moment' – in that that's where you were in the moment, he was in the moment, everyone was in the moment – and it blew up so quickly."

MARGERY: "I guess situations like this provide that opportunity for learning for everyone. How was the rest of the class?"

JACK: "They were really quiet. They noticed what was happening first and said – "Hey Sir"… … But this afternoon a lot of the kids have asked me if I'm OK – because they saw that I'd got hit. I don't think they know what to make of it either so I'm wondering what to do next to check they're OK."

MARGERY: "One incident I had when I was sharing that class with Peter – I remember going home that night and I couldn't even sleep because I hadn't had anything that bad for a while. So we spent the whole of the next lesson talking it through with the kids – reflecting on how this could have worked differently for a different outcome. Some of them had some really good ideas – they have plenty to say and plenty of knowledge to impart when they've got the opportunity. We asked questions like "I wonder how you could help each other out in situations like this – are there things they

could do?" I don't know – because quite often it's a bit hard managing yourself – often we need someone else to sit alongside and say "yeah yeah you're doing all right."

ALAN: "It's really interesting. You know Xavier needed help to write down his statement of what happened – so I was sitting with him – and he wouldn't let me write down some of the things that he'd called Barney because he wasn't happy with what he'd actually said – and he said "And you can't hear that" – which was interesting - he was very socially aware that it wasn't … appropriate. So there's learning there for him. And I remember another time Barney had come to the defence of some girls he'd thought were going to be hit – and then he'd got hit himself."

JACK: " Oh yes – I was in the RJ room when he came in that time. He was so upset - we spent a lot of time doing a jigsaw – till he was calm enough to open up about what had happened."

ALAN: "Yeah – it's about having that space sometimes. You know – things are possibly going to go in a way we don't want them to, but just think of all the times they go the way we do want them to go – and they far outnumber the hiccups I would think … … … I always tell the kids "We're a community within a community – and so you know – this space is all of our space – like the whole school – our classroom is a shared space - and so we have to accept each other – the way people are."

MARGERY: "It's like negotiating your way through isn't it"

JACK: "That's a good way of putting it – negotiating your way through … … …"

Appendix P: Session 3 June Returning materials letter

Kia ora koutou,

At our last group meeting on 21 June, I started off by asking the question "How are we going with these meetings?" Behind that question was the concern that in this 'different to usual' inquiry process, just as I am gathering rich material for my research project, I hope that you are also experiencing new/different/enhanced ways to think about and appreciate your teaching practice.

You said that you are appreciating connecting to the stories in ways that have raised awareness and alertness to the wider 'life' learning that is often unacknowledged in our credit driven system. To paraphrase one comment, we are noticing, naming and contextualising learning that is often taken-for-granted and might otherwise go unnoticed.

However, when it comes to reporting back to your departments — you said it has been difficult to find ways to describe the work we have been doing. So — this month I have written the 'returning material to you' in such a way that you are welcome to share it with your department if you'd like to.

I'm looking forward to another rich discussion next week.

Ka kite
Judith

Appendix Q: Session 3 June Returning materials notes

"Field work"
A story of 'meeting' a student

> Out beyond ideas of wron-going and rightdoing,
> there is a field.
> I'll meet you there.
>
> *Rumi (13th century Sufi poet)*

At our PLG on 21 June, we heard a story of practice that centred around one student. In this story, the teacher responded to the student's difficulty in making progress in her work by sitting with her to plan and prioritise her schoolwork for the year within the context of her other life commitments. For me, this was a story of a teacher responding to and meeting a student 'where she was at'. Her apparent learning need in that moment wasn't related to a formal learning assessment, it was about building her capacity to cope with stress, to plan and prepare, and so take action on her own behalf in a tangible and practical way. This intervention by the teacher helped the student learn how to create a timetable structure to support her academic progress when her life in other areas was spiralling and chaotic. As we talked, others also commented on their experiences with this student and their frustrations and difficulties as the intensity of stress threatens at times to overwhelm her. We also heard of this student's remarkable insight into her struggles, and how she had taken her new learning, written about it as something she plans to take forward in her life, and also shared it with other students.

Hearing this story invited us to think further about how student's lives are so much bigger than what happens at school, and that notions such as 'managing self' actually blur the school/life boundary. We talked about

knowing students and responding to them within the context of relationship – that we sometimes just know if something's not right for the student – and how that can take a toll on us too. Alongside that was also the pleasure – the 'wahoo' moment we get when we see students moving and growing - being uplifted by something we (or they) have done.

As we move on in this research, I'd like us to explore further how capabilities and competencies are performed within the reciprocity of the 'ako' relationship. As an example, let's look at some of the competencies that teachers were calling on as they responded to this student when she was in moments of distress. Despite actions that were "doing my bloody head in" – teachers were holding their own frustration *[self regulation]* and reaching beyond that to respond with innovation, calmness and patience*.* In the story, teacher frustration was the clue that a new response to the student was called for. Another teacher talked about needing to allow this student time to calm herself before re-tackling an academic problem. And another teacher spoke of having to calmly repeat herself until the student understood. This nuanced reading *[language, symbols, text; relating to others]* of not only the student's emotional state, but also the teachers' own response *[self knowledge]*, requires a fine level of attunement and awareness *[thinking].* In carefully responding to the student in this calm, steady – we used the word 'solid' – way, the teachers were holding open a respectful learning space for this student as she continues to develop her own capacity to manage stress within the context of participating in formal subject learning.

The NZ Curriculum states (p. 12) that "people adopt and adapt practices that they see used and valued by those closest to them, and they make these practices part of their own identity and expertise". So exploring our own practices is another way to notice, name and contextualise those actions that lead to student learning.

Appendix R: Session 4 early August plan

notes for plan for next week … … …

I got the sense that we are ready for a little more 'meaty' analysis in our group meetings – so I'm planning to structure our next meeting slightly differently

The NZ Curriculum (page 12) notes that competencies are "more complex than skills" and "draw also on knowledge, attitudes, and values in ways that lead to action". It goes on to say "Opportunities to develop the competencies occur in social contexts. People adopt and adapt practices that they see used and valued by those closest to them, and they make these practices part of their own identity and expertise." So as we think about how we might foster competence development within students we may also consider the skills, knowledge, attitudes and values that we bring to the ako relationship and which contribute to our own actions within these moments.

Plan:

1. Hear story of practice – as usual
2. While listening to story – Judith to ask questions that draw out knowledge, attitudes and values as well as skills
3. Participants listen and note resonances to their own practice – this may be a similar moment, an attitude, knowledge etc
4. In pairs – participants interview each other - particularly noticing the flow of affect and the call and response of 'ako'
   a. What in this story resonated strongly for you?
   b. Where did it take you in terms of your own practice – what did it bring to mind?
   c. How did the participants in the 'moment' – teacher/students/others respond to and contribute to the moment as it unfolded?
   d. What did you notice about the responses of each 'actor' in the story?
   e. Did you notice any 'micro-moment' where a 'shift' occurred – or where actions could have gone in a number of directions?
   f. What skills, knowledges, attitudes and values contributed to the action that did happen in that moment?
5. Participants report back to the group
   – a brief précis of 'the moment' and key findings from their discussion.

Appendix S: Session 4: early August form

Key Competency Inquiry	Name:	Date:
What am I noticing?	Retell an interaction that relates KC/s	
Set out your understanding of the learner in relation to KC/s in that moment.		
Is there other data in support of my observation? Anecdotal? Written? Kamar?		
Respond to teacher learning needs to establish an action PLG work, professional development, reading etc		
Develop a feasible intervention Prepare explicit acts of teaching/interactions Do I need co-construction, support and feedback?		
Implement of acts of relational practice explicit to the inquiry over a period of time.		
Gather evidence of improvement and impact		
Evaluation and identification of next steps		

Appendix T: Session 5 late August Returning notes

Notes from PLG meeting 31 August 2016

I've looked through my transcript of our PLG meeting on 31 August and noted the following key points that were raised in the discussion. Hopefully this will be helpful to the group when thinking about the on-going purpose and direction of the group.

1. The most pressing problem is how to use the remaining two meetings of the year. "On the horns of a dilemma"

    a. the need for the group to provide leadership and guidance in the school on Teaching as Inquiry

    b. the group continuing (for the last two meetings scheduled for 2016) to provide research material by having collaborative conversations around Key competencies in incidental moments.

2. What 'being leaders in the school' in Teaching as Inquiry might mean – and wanting to develop leadership collaboratively.
    a. To develop teachers as having an inquiring disposition – which brings with it the need to acknowledge their status as learners too.
    b. Having an inquiring disposition means being open to think about and see things differently.
    c. In the future – Inquiry will underpin teacher practice and planning.
    d. Questions to explore this further were asked:
        i. What does an inquiring teacher look/sound like?
        ii. What promotes an inquiring disposition?
        iii. What are the barriers? e.g.:
            1. overload of work
            2. overload of information
            3. pressure of accountability
            4. on-going measurement of both students and teachers

3. The need for practical, results driven Inquiries
        i. group members have fielded requests from Dept members for practical help in their Inquiries. There is an expectation in the school that PLG members will

be able to provide support for practical, results driven Inquiries.

      ii. Teachers are under considerable pressure to be accountable for their work, and Inquiries provide evidence for PTCs.

4. The need to tease out where the role of the PLG and the role of the HOD converge and differ.
   a. What falls with HODs and Departments and how does the work of the PLG feed into this.
   b. Some thoughts were that the work of this group goes beyond the practical process of inquiries to developing the Inquiring Disposition – as in the leadership notes above. eg:
      i. Why are we doing this?
      ii. Where are we going with it?
      iii. How is it going to look/feel?
      iv. Why are these things happening?
      v. What's the significance?

5. Our work this year on the Key Competencies
      i. PLG group members commented on how they have been engaging with and using Key Competencies more – both in their own Inquiries and in teaching practice
      ii. Judith would like to be able to continue to collect stories/material to the end of the year with interested group members – inquiring further into the attitudes, values and beliefs that lead to the actions we call Key Competencies.

Appendix U: Session 6 November 1 handout A

Notes for PLG meeting 1 November 2016

In this research, we are making visible or 'colouring in' a significant portion of teacher's work. We are doing this by exploring moments that previously might have been taken-for-granted or dismissed as everyday 'bread and butter' intra-actions.

Our lives and the lives of our students are shaped by the actions we take, and so as we know more about what might be at play in the performance of the KCs, a rich resource of responses and initiatives becomes available to us.

The NZ Curriculum (page 12) notes that competencies are "more complex than skills" and "draw also on knowledge, attitudes, and values in ways that lead to action". I wonder if it may be useful to us to think of the KCs as 'categories or areas of action' – just as there are the different learning areas of the curriculum – rather than as 'things' in themselves. In this way, as we inquire deeply into the skills, knowledges, attitudes and values that contribute to the performance of particular actions, our understanding of what produces those actions we know by the broad categories of Key competencies is enriched.

So – we have been telling stories in which we have identified actions occurring that fit into the Key Competency categories. Our next step is to continue to develop our inquiry by making visible knowledges, skills, attitudes and values that are brought into the 'ako' student-teacher relational moment as they lead to action.

As an example of how we might do this I have taken a part of the transcript of the story that was told to us on 21 June – and added questions we might ask the teacher which further extend our understanding of what was contributing to the actions taken.

Appendix V: Session 6 November 1 handout B

Teaching Alison

Teacher: ... Teaching Alison – she will go 100%, but if something else gets in the way she can't focus on what she's doing.

- *When you notice that Alison is 100% - what does this tell you about what is important to her in her school life?*
- *Can you think of an example of when she was working 100% - what was happening for her in the classroom?*
- *How would you say/guess she was thinking of herself as a 'student'?*

Stuff went down at home ... … Alison was struggling. She's a smart cookie and she should be getting excellences but she was not completing things - just moving on to something else - and she was all over the place. She was losing heart because she wasn't seeing she was making any progress.

- *When you saw Alison 'losing heart' how were you affected?*
- *What approaches have you used to help students who are living with complex struggles?*

I helped her through that, purely from my own subject area. - Then the following week the same kind of issues cropped up again. This happened three times on the trot. I was beginning to think "This is doing my bloody head in!" In the end I thought "hang on a minute - I haven't actually stopped and shown her how to juggle these things together, how to prioritise, prioritise by time, prioritise by resource - all these different other facets. I asked her if she wanted to come back after school and we'd go through it.

- *You were noticing both what was happening for Alison and also what was happening to yourself (in that it was 'doing your head in') at the same time. What possibilities did holding these two knowledges about the 'ako' relationship open up?*
- *In inviting Alison to come back after school, what does that tell a student about the value you place on her and her education?*

So she did. I set about doing a time-plan for her spread out over the whole year. We looked at variables, when deadlines were - fed them into this huge time-plan,

worked out how long certain tasks take - even had to explain to her that the plans she first came up with were brilliant but didn't allow for any socialisation time. She went ahead and did it all - and it got her on track. And she came back a week later - really chuffed. She felt much more in control across the spectrum. She'd taken some ownership in planning and organising herself with every other subject. And then - Billy McKillop and Snow Emmerson and a few others all started coming along cos Alison had shown them what she'd done - so you're getting this tuakana-teina thing taking place ...

- *How might holding hope like this for a student influence your practice?*

I was chuffed because it meant **she'd** got it - and she'd make success of it - so it was like success breeds success. So – yeah - I did feel good about it but not in a way that I felt like "Oh I'm amazing" it was just like - you know that teachers get the penny-drop factor when the kid finally understands what you're on about ...

- *How did Alison bringing the boys in affect your sense of yourself as a teacher? Thinking back on it now - are you noticing the same sense – or does remembering and talking about what happened bring a different sense? If so – what differences are you noticing now?*
- *If you look into the future - how might this series of learning and teaching experiences contribute to your on-going commitment to your work with other students?*
- *How might the pleasures of this kind of learning story contribute to your on-going work as a teacher?*
- *If you take a look into the future - in what ways might this experience with Alison and the boys influence your practice?*

Appendix W: Session 6 November 1 handout C

Gathering research material in pairs/small groups
(record discussion if possible)

Storying and interviewing (10-12 minutes)

In three's or small groups - one person tells a short story of practice – an informal/unplanned moment in which you have supported a small development of a Key Competency.

The second person asks questions to enquire about the skills, knowledge, attitudes and values that were operating in that moment (see possible questions sheet).

Witnessing (3-5 minutes)

The third person (and any others) listens and notes resonances in your own practice – this may be a similar moment, an attitude, knowledge, skill or value.
- What in the story resonated with you?
- What did it bring to mind? How does hearing the story support you in your teaching and relational practice?
- What would you like to take forward into your practice from this story?

The witness(s) respond to the small group (3-5 minutes)

Feedback to the large group

Feedback to the group:
- noticings from and responses to the discussion
- the effect of the interviewer asking these questions
- the kind of questions asked
- is there anything you'd like to take forward from today's discussion

Appendix X: Session 6: November 1 handout D

Possible Questions:

- Who were the actors?
- What did they do?
- Where did the story take place?
- What particular knowledge did you draw on that informed your response in that moment?
- What beliefs have you found helpful when negotiating difficult moments?
- What values do you call on when faced with difficult moments with students?
- Do you have a 'mantra', whakatauki or saying that helps guide you in difficult moments?
- What might this particular story tell you about the values that you hold?
- What might the student/s have learned about what is important to you in that moment?
- What did you learn about that student in the moment?
- What is your guess about what that student is aspiring for?
- What are your hopes and dreams for this student?
- How might your hopes and dreams for this student have influenced you in this moment?
- What might the student's have noticed about you in that moment, or at different moments in this event?
- What does it tell you about the pleasure or satisfaction you might experience in your work with students?
- What does it tell you that you bring into your teaching that delights you?
- What does that tell you about what is important to you in your work?
- What particular competencies/capabilities did you notice the student using or developing in that moment?
- What from this moment would you like to bring forward into your teaching practice? Why?

Appendix Y: Session 6 November 1 Returning material

Returning to the class: Matthew

Matthew has not been coming to school for nearly three weeks. He had a falling out with close friends and mean things were said. Today is his first day back in the class.

Teacher: Matthew's very fragile so I'm not even sure I'm doing the right thing … I sat him near Rory – I suggested he sit next to him and he sat as close as he obviously felt comfortable.

- *Even though you were feeling so unsure - what knowledge or experience led you to suggesting Matthew sit next to Rory?*
- *What did you know about Rory that led you to place Matthew beside him?*
- *What were you noticing about how Rory was caring for Matthew?*

And everytime Matthew put up his hand I made sure I was there straight away. I guess that was the difference in what I was doing today.

- *When you saw how Matthew was struggling – what went through your mind?*

And also everytime I went there I said to Rory "Are you happy to help him with that?" And he was happy, but Matthew didn't actually ask him for anything – but I guess the thing is you're putting it out there aren't you.

- *What were you demonstrating by asking Rory if he was happy? Respect? Care? Providing options?*
- *What do you think Rory learned about your respect – care – providing options when you checked in with him?*

The boy who was Tagging: Hone

The teacher had found Hone tagging a building. As the group asked more questions about what had happened the teacher was able to put some relational context around the story.

Teacher: I've only had one other talk with Hone before – one on one that is. I'd heard Sally say she'd struggled with him in her class and so I had a little talk with him.

- *When you heard Sally say she had struggled, how did that influence how you approached him?*
- *What skills did you draw on to initiate a conversation with Hone?*
- *What might Hone have learned about what you value about him and his learning?*

You know "Who are you Hone", "What makes Hone up?" sort of talk. And he did – he talked about himself. I guess I just tried to build a little bit of relationship with him just to see who he was as a person.

- *What did you learn about Hone when you talked with him in this way?*
- *What did he learn about himself in that interaction?*
- *When you talked to Hone in this way – what do you think he was learning about relating to people?*

Appendix Z: Session 7 late November plan

Plan for Group 29 November

1. Go over again thinking of the KCs as a complex weaving of skills, knowledge, values and attitudes that produce action in a 'moment'.

2. Give out to everyone the written piece on this – "notes for PLG meeting 31 August/1November".

3. Remind how last time we started experimenting with questions that explored the 'skills/knowledge/values/attitudes' that might have been at play in the 'story of practice' that was talked about'. Remind that this is making visible practice that is often taken-for-granted.

4. Read together the returning materials examples.

5. Ask participants to take 2 minutes to read through the possible questions – and internally think about any that might have been interesting to ask when you were talking in groups last month.

6. There are three parts of the group process I'm interested in today – the first two will happen in the small group and the third as a larger group reflection:

   a. the story and questions used to explore the story in fine detail,
   b. the response of listeners as they connect to the story – its effect on your sense of professional identity – how hearing the story might effect you and your practice (the I C U connection),
   c. and what you notice is the effect of asking questions in fine detail – are there any changes in how you think about yourself, the student, your practice, someone else's practice?

7. Choosing the story to tell. I noticed with the tiredness last month that it was harder to come up with a 'story' of practice – and there was some concern about what might be a 'right' or 'good enough' story. This research is about the ordinary, incidental moments that happen every minute of every day in your practice. So to de-emphasise the importance of choosing the 'right' story I invite you each to think back over the day you've had today and the interactions you've had with students. How did it go for you? What was happening? Were there highs or lows or was it a regular 'run of the mill' day? What sort of feeling tone do you get when you think about the day? What's popping up for you right now? … These are

the ordinary moments we can explore more deeply/slowly/ in more detail.

8. Break into 3 groups. Give out guidelines for today's discussion. Each group to have a recording device: phone, digital recorder, computer (use QuickTime) – and follow plan as much as possible. Please be intentional in use of questions.

9. Feedback in large group:

    a. What is popping up for you now about the process of having a conversation like this? What has been the effect for you of asking questions in fine detail?
    b. What do you notice about your own responses to the conversation?
    c. What do you notice about the effect of the questions on the way the conversation went?
    d. For the person who told the story - as a result of the conversation – has there been any change in how you now think about what happened? about yourself and your practice? about the student?
    e. For those who listened to the story and asked questions – as a result of the conversation – has there been any change in how you think about yourself and your practice? about the student? about your colleague? about teaching?
    f. Is there anything else that you are now thinking about regarding how Key competencies are enacted?

10. As a follow-up to your participation in this research group, I'm going to send out a Word document attached to an email (tonight) with just a few questions on it about our work this year. I'd appreciate you completing this as it will make a significant contribution to my study but of course it is voluntary. You can either write on the document, save and return to me by email, or print it out and write on it the old fashioned way and return it to me confidentially.

possible questions

group instructions

theory notes for Aug/Nov 1st

returning materials

Appendix AA: Session 7 late November handout A

Gathering research material in small groups
(please record your discussion)

Part One: Storying and interviewing (25 minutes)

In threes or small groups - one person tells a short story of practice – an informal/unplanned moment.

The other participants listen and ask questions to enquire about the skills, knowledge, attitudes and values that were operating in that moment (see possible questions sheet).

Part Two: "I see you/me" reflection (5-10 minutes)

Those who listened, take a moment to pause and reflect on your own response to the story and how it may have resonated with you. You may have experienced a similar moment, an attitude, knowledge, skill or value.

- o What in the story resonated with you?
- o What did it bring to mind? How does hearing the story support you in your teaching and relational practice?
- o What would you like to take forward into your practice from this story?

Listeners respond in the small group

Part Three: Feedback to the large group (15-20 minutes)

Feedback to the group:

- noticings from and responses to the small group discussion
- the effect of asking these questions
- the kind of questions asked
- is there anything you'd like to take forward from today's discussion

Appendix BB: Reflections on research

How teachers foster the development of the Key Competencies in Incidental and Unplanned moments

Thank you very much for participating in my research project this year. To complete this stage of the work, I'd appreciate your responses to the following questions.

Please write as much or as little as you wish. Anything you have to offer will be valuable.

As a result of participating in this project:

1.   Has there been any change – however small – in how you think about and understand the working of Key Competencies in everyday incidental moments? If so, what have you noticed?

2.   Has there been any change in how you think about and value the skills, knowledge, values and attitudes that you bring to your work? Again – if so, what have you noticed?

3.   What (if any) aspects of the conversations we have been having in the PLG might be worth thinking about further?

4.   What (if any) aspects of the work we have been doing do you think might be helpful for other classroom teachers to recognise in their everyday encounters with students?

5.   Is there anything else you'd like to say?

Name: ………………………………………….

Date: …………………………..

Appendix CC: Evidence of ethical approval

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THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

MEMORANDUM

To: **Judith Graham**

cc: Associate Professor Kathie Crocket
Dr Elmarie Kotzé

From: **Associate Professor Garry Falloon**
Chairperson, Research Ethics Committee

Date: 27 August 2014

Subject: Supervised Postgraduate Research – Application for Ethical Approval (EDU066/14)

Thank you for submitting the amendments to your application for ethical approval for the research project:

> **An inquiry into how secondary school teachers foster the development of Key Competencies in incidental and unplanned moments**

I am pleased to advise that your application has received ethical approval.

Please note that researchers are asked to consult with the Faculty's Research Ethics Committee in the first instance if any changes to the approved research design are proposed.

The Committee wishes you all the best with your research.

Associate Professor Garry Falloon
Chairperson
Research Ethics Committee

Appendix DD: Bridging Play performance script

This performance will be produced in movie format—although audio and still images may be a part of the final production.

Title frame: Everyday Moments and the Key Competencies

And then a frame of this text:

> Welcome to a slice of the project researching "How Secondary School Teachers Foster the Development of the Key Competencies in Incidental and Unplanned Moments."
>
> This production brings together the voices of teachers and researchers. While the words spoken by the teachers in this presentation are taken directly from research interviews, creative license has been used to preserve participant's anonymity.

All actors are seated in a semi-circle in conversation together.

Judith: *speaking directly to the camera*

Today, we're meeting with four people. Jo, Tai and Ana are secondary school teachers, and Ruby is a researcher who contributed to the development of the Key competencies in the New Zealand Curriculum.
Ruby, if we could start with you, I wonder if you can give us some background into the development of the Key Competencies.

Ruby: Thank you Judith. You know we didn't stop when the Curriculum was produced in 2007. We've kept going researching its implementation … … and I'd just like to give a little plug here for this book *(holding up the KC for the Future book)* - "Key competencies for the Future". It was published in 2014 and gives some of the latest thinking about and practice around the competencies.
Behind the development of the curriculum we were thinking about how complex and rapidly changing the world is now – and what young people

might need to learn to be equipped to respond to complexity, not only now but in the future.

What will they need to be capable of doing and being?"

In the late 1990s the OECD had a go at identifying the competencies people need – and I quote - "to live a successful life in a well-functioning society" - unquote. So we used that work and adapted it to suit New Zealand.

Judith: If I can just find it here - this is what the Curriculum says on page 12. *(holding up the Curriculum document)* The key competencies have been identified as capabilities for living and lifelong learning, those areas of learning that allow people to "live, learn, work, and contribute as active members of their communities".

And these areas have been categorised as: thinking; using language, symbols and texts; managing self; relating to others; and participating and contributing.

Ruby: Yes. "Capabilities for living and lifelong learning" is right up there in the heading box.

(Puzzlement? Gentle frustration). Yet it has often been our experience though, that people can't immediately recall this definition when asked … not only that, our studies have shown that many schools have been slow, or have stalled in weaving the key competencies into student learning in any depth.

Judith: Well Ruby – I wonder how teachers actually think about the competencies, if they even think about them very much at all.

When I was starting this project I met a teacher - **not** someone at **our** school - who said: "Honestly Judith – why are you researching that! It's so dry and boring. Couldn't you think of anything more interesting?"

So I'm wondering – Jo, Tai and Ana - what you think this slow uptake or lack of momentum might be about?

Jo: *(A bit rushed – pressured)* Well-you-know – I don't have a lot of time. There's always something that needs to be done – it's a luxury to take time-out to sit and think about what I do.

Ana: And not only that - there are such strong demands with the curriculum to teach – you know – to teach and assess – teach and assess – teach and assess …
It's like a never-ending merry-go-round. Our performance as a school is judged in the community by the results we get.

Tai: *(justifying – as if speaking to a panel investigating teacher stress)* It's hard work! I've never met a secondary teacher who wasn't stressed.
Sometimes the tension tires us down – and a lot of time you just haven't got the energy – the emotional reserves that you need.
(explaining – looking at other teachers for agreement) I think a lot of it is the workload eh.

Ruby: If I can interrupt here *(conversational tone).* Hindsight is a wonderful thing, and when I look back after nearly a decade I can see that maybe the names developed for the Curriculum don't necessarily convey the full richness of each competency. I think possibly, our decision to describe the competencies quite simply, may have drawn a more surface level response than we intended.

Judith: And Rose, I wonder if perhaps the key competencies have been experienced as yet another imposition – another thing teachers 'have' to do – when they're busy enough already.
What I'd like to do is look at what happens in schools in another way – from the inside out? *(pause)* I'm sure there's a lot of competency development that happens in incidental relational moments – in everyday interactions with students.
I'd like to see what teachers actually do – and what they think about what they do when they have the time and space to reflect.

Jo: *(thoughtful)* Well Judith, I think my ideas might have changed in some ways. Like – I think – and maybe it was a combination of talking about this with you as well, but the idea of those competencies being a conscious part of our practice is kind of essential – you know what I mean – and it's kind of – it's as much about those things than anything else actually.
Looking to Ana and Tai

Ana: I think the key competencies are at the heart of it really for kids … … And I think teachers are curriculum driven – this **is** part of the curriculum I know *(gesture as if indicating 'other')* – but yeah 'that's' part of the curriculum but now what do I have to teach? *(slight increase in pace to indicate pressure of time)* I haven't got much time – I haven't got time to talk about that stuff … … … *(slow speech down for emphasis)* But **it's the heart** of it.

Tai: *(explaining)* Yeah that's right – we're all subject specialists – but wider *(hands out gesturing wider)* than that we're educators and our job is to equip the students with the skills they need to – hopefully – follow any number of given pathways.
In the end – we're preparing students for life … … they need to be able to leave here equipped for the next stage in their learning. They need a desire to learn, and the relationship skills to get on with people in their workplace or learning institution. If they haven't learnt some of those skills, or they don't know how to treat people – to relate to people – they're not going to find people very receptive back to them. So yeah – they need to see they're part of a community and they have to work in with other people and know how to build good relationships.

Jo: You talked about incidental interactions before – most of my stuff feels like incidental interactions – they're not planned conversations – they just happen through talking to a kid about where they're at with their work, where they're at with anything and everything.

Judith: *(interview style – more formal - turning to Ruby)* Ruby you've said you'd like to see ideas around the key competencies pushed further. I know you've done a lot of work supporting the development of exemplars of classroom lessons that demonstrate competency development in practice.

And like you said: "Just like the key competencies themselves, rich practice examples can be ideas to think with, not just models to follow."

So in this research we're expanding thinking around teaching and learning practice to include other moments that happen in schools.

(looking at teachers) I'd like to hear some your stories of everyday moments with students.

Tai: *(conversational tone)* I wouldn't walk from the staffroom to my class any morning without talking in some way to at least three or four students – and sometimes a lot more – just little conversations about all sorts of stuff.

Ana: *(conversational tone)* Yeah – and sometimes you're just walking round the school going about your business – thinking about what your going to do next - and you see something that you have to stop and deal with. Like – here's an example - I was walking across the field going out of school one morning during senior exam time, and by the gateway I saw three students I didn't know. There was a boy standing on the wall and two girls talking to him. As I got closer I saw smoke rising from the boy – well, you know that feeling - my heart dropped. But, the other students were watching and there was a young family walking past so I couldn't just leave it and pretend I hadn't seen it.

So I said to him "Not such a good idea mate" and he said: "I'm not at school Miss".

Then I said "Well – you're in school uniform and you're standing at the gate so it kind of looks like you are. Can you put the cigarette out please."

And he said "Just a minute Miss", and then he took two long drags like this – *(sucking sounds with hand up to mouth as though cupping a 'roll your*

own' - "shiiisch .. . … shiisch") and when he'd done that - then he let the cigarette drop to the ground before he looked back at me.

And I thought, "That's cool – he doesn't know me, and he's done what I asked" so I said "Thanks mate" and kept going on my way.

Judith: *(interviewing)* Wow. Yeah - that could have been quite confrontational. So having to think about your response right there in the moment – what would you say is guiding you

Ana: Yeah – well - I guess I've learned from a few run-ins over the years.

Tai: *(informal – storytelling – as if to some mates)* I had a similar thing happen the other day – right out there too on the other side of the field *(turning to the other teachers)* Do you know Brixton? *(back to Judith).* Yeah - well he was being difficult out at the buses the other day – and I approached him in the wrong way cause I was annoyed to see him climbing up the trees at 20 to 3 when he'd already been kicked out of our school – 48 hours later he's back climbing up trees at 20 to 3 causing a scene – and I just approached him – I could have handled it better – I just went at him basically – as you do sometimes.

And he sort of went back – he had a go – and I realised I was getting angry and had to stop and step back and essentially let him run his mouth off. And I had these other kids looking at me thinking "What's he going to do? Is he going to do anything about that?" and I just had to take it – I had to manage myself – handle it – cause I knew I was annoyed … … Went home – felt terrible – thought "Ohh – dummy – if you'd only said this – you'd only said that – it might have been different" – because although Brixton's Brixton – I can't control Brixton – I can only control myself – and I didn't think I'd done very well.

Anyway – I was walking back from the War Memorial Hall period 5 the next day – coming through the main entrance across the field there – and then I see Brixton there again – and his girlfriend. And I think "Oh shit. Here we go again – OK – brace yourself!" And he walked up to me and

said "Sir, I've come down especially to say sorry." … And it totally disarmed me sort of thing – it's like "Ooh OK". "What's up?" and he just said – "Oh I shouldn't of spoken to you like that yesterday – you were just trying to talk to me and I was a dick about it. I've just come down here today just to say that to you." And I was just like – "ooh – thank you mate – that means the world" … … … cause you know – kids don't realise sometimes you go home and feel bad about these things and think about these things. To get that was really nice.

Jo: Yeah – that would have been nice. It's hard sometimes isn't it – but we can build our own capacity with regard to the key competencies … as practitioners and as people - as well as teach it. Cos they watch how we react and they learn from that. I mean – you know - we have it as a core value of our school – relating to others – so we need to model good relationships as much as we can.

(pause - reflecting)… … … You know - the neat thing about being a teacher for me is that I get to express kind of who I am within the parameters of my job - and it's OK. It's not a business. Schools are different. We're dealing with young people. We're dealing with ... … with potential ... with people - and those relationships are key to everything that occurs.

So yeah when I think about it – that's what I try to use to guide me - relationships are number one to me - and if I have to sum it - narrow it all down to the most basic - "It is people. It is people. It is people".

Tai: *(speaking with passion)*

Ae – He aha te mea nui o te ao. He tangata, he tangata, he tangata.

You know that's right – that's what I bring to my job.

And I also bring the hopes and aspirations of the people of where I'm from.

Those hills *(looking out as if towards the hills)*… … … that whenua … is where I come from … … …

I'm connected to that … … …

I'll get buried in the hole up on our urupa at our marae when it's all said and done

Ana: *(upbeat)* Yeah … so when you meet the kids at the beginning of the year - the first thing you do is make yourself known *(expansive/inclusive gestures)*

- who you are
- where you come from
- what you do
- where you've been

And then out comes their mihimihi

- where they've been
- who they are

(looking back at Tai)

Tai: *(still reflective)* Yeah - I'll get buried in the hole up on our urupa at our marae when it's all said and done

(slowly) And the young ones now at the marae – some of them who come to this school – will be the ones who dig my hole and some of them will cook the hangi so everyone who comes and says goodbye to Tai can have a feed.

So that's how connected I am to this place

So – yeah – how does that guide me? How do I bring that in here?

I bring the hopes and aspirations of the people where I'm from.

I represent that

I try and advocate for that

Ana: *(looking from Tai back to Judith. Genial – more upbeat)* Yeah - It's about connection isn't it. It's why I enjoy teaching. It's plain and simple. You get to connect with people. That's it … in teaching people are generally involved in it because they want to – to contribute, because they want to connect with people, and they want the best - that's what it comes down to.

So I'm here to help the young ones – it's that simple. I'm here to help the kids.

It's basically about the opportunity to connect – that's it in a nutshell – because actually making a connection with someone is a good thing to do.

Ruby: *(responding - informing)* Mmm - Yes – we've written - that if learning is to connect meaningfully to students' lives, and the curriculum says it should, the bigger purpose that the teacher has in mind will need to be deliberately developed. The learning will almost certainly encompass something more than traditional content acquisition for its own sake.

Jo: You're right. What we all bring together to the learning is bigger than what we see in any textbook.

In my classes I like to bring out the students' knowledge about where they're from - we start getting in to things like that – and so they know that's what it is – what the connections are – so they can connect to the learning material …

(pause as if thinking deeper)

…*(significance of students)* Because you're talking about where **they** come from …

Yeah – I'm making the link with them – because you have to because then they get an idea of what it is because they've experienced that idea.

And you know – I was talking to some kids about where I was going for the weekend and I said I was heading South – and they said "Where's South, Miss?" So I drew a compass - North, South, East and West and showed them it was directions – like ways to go - not a place or a destination. And then I drew a quick sketch of the North Island and I said – "You know if you're going to Auckland the direction you go is North West. And if you're going to Wellington, then that's going South." And one of them said "My mother lives in Wellington. I'm going there in the holidays". So I said – "well, you'll be heading South too then."

Because you're talking about what they know.

And you **want** them to come into this conversation

You **want** them to **add** to this conversation

Because they've got the knowledge of where they come from

Knowledge that we don't know

And I want them to share this knowledge with the school.

Ruby: *(conversational – explaining)* Something we've come to realise is that the key competencies all cross-cut each other. We pull them apart to understand their individual character, but it's also important to stitch them back together when we put them to work in real contexts.

Jo: When I think of the key competencies it speaks to me in terms of the level of care we bring to our job. Operating from a Key Competency perspective requires care. A whole lot of care.

Tai: *(earnest)* The key thing for me in terms of the things you most want to see in your students … I think it's kindness.
I'll give you an example.
(storytelling) What I've started doing – purely randomly- is whenever I go to the canteen … because teachers get to go to the front of the line … so whenever I push in front of someone I just buy them a 50c ice-block and say

"Choice man. Thanks for letting me in – and here's your reward."
And a real cool thing happened the other day – right in front of me this boy let another boy go in first – and he got what he wanted and then he went. And I said to the first boy

"I'm going to push in front of you and this is what I do when I push in front of someone – I buy something"
And then I took the time to say

"Look – think about it – if you hadn't been nice to that other guy you wouldn't now have this opportunity – so it's a choice thing you did and you get an instant reward for it."
It seemed to me like a real effective way – a real tangible example that was more effective than just saying to him

"Hey look this is a good thing to do"
Because it was an opportunity to reinforce what he had done naturally.

Ana: *(warm conversation)* Yeah – and – a lot of the conversations I have with kids are about what they're doing in their lives - what their plans are. One kid I sat down for ages with is a young guy who's really keen on the

environment – so I asked him – just cause I was interested really – about the project he was working on. It's stuff that they're interested in eh – so I'm sure they get a kick out of it as well.

Tai: *(warmth)* Building relationships with kids is about knowing each other – that reciprocal teaching thing.
Because that's what mihimihi is – letting them know about you
And those connections are making them feel part of the school – belonging them to our community.

Ana: *(light tone – but important point – conversational)* It works both ways eh – good relationships are good for us too. Like – I overheard another teacher say to a student the other day "You know – before I came here I was in a bad mood and I'd had a really upsetting day – but the time I've spent with you has made me feel a whole lot better."

Jo: *(passionately)* I think the key competencies are at – or should be at – the core of what we are teaching as educators.
But you know - when it comes down to it - staff are the most important resource we've got … … …
We know people get worn down – so – just like with the students -
    Staff need to be supported
    they need to be valued to remain resilient
so they can remain or become open to being inspired
because they're bringing themselves to the work.

Ruby: *(slow – thoughtful)* Yes – I see – if we think deeper about what the key competencies might mean in practice – we all need to be **learning together** on this.

Tai: *(explaining)* I think we have a responsibility to teach them to be able to support community activities, to expose them to that so that in the future they'll be participants as well …

In Te Aka Matua we have to fulfil a role in the school and in the community … …

We've had a lot of people that contribute to our school, and if they pass away or their family – we take our students there and participate in those cultural practices to show that support back.

And so by learning the songs and learning karakia that's just an extension of who they are, so that hopefully as they grow older they'll say

"Well – I'm going to the tangi – I'm going to support"

And that becomes part of their make-up and who they are and what they do.

Jo: *(strong – definite emphasis on whanau – slower)* Whanau – that's about care isn't it … …

(speed up a bit) And you know - care takes a lot of forms – it doesn't have to be soft … …

Ana: *(thoughtful)* And just to see for myself that you get way more back than what you have put out –

because it really is … that is … the key to life really is about building as many of those connections and experiences between people … …

I think that's actually the best way you can use your time on earth.

Ruby: *(formal but also conversational as if explaining to a small group)* You know – what I'd like to get out there is that key competencies are essentially a curriculum **idea** *(emphasis)* – they are not specific things. They can't be treated like a prescription that's been set out for people to decode and then just follow (like say, a traditional list of curriculum content to be learned).

What I've learned over the years is that the key competencies actually require some deeper thinking, and careful interpretation by everyone who uses them.

And what I've been saying is that because communities, schools, teachers, and students are so diverse, this dynamic process of interpreting needs to happen as close as possible to the teaching and learning action. So thank you – that makes what you've been telling me today so special – you're describing what happens in your school … what's important in your community – and that's the essence of building a local curriculum. And the payoff is likely to be learning that will engage - not just the students – but everyone involved – and it'll be learning that will help students to live well in the future.

Judith: So - how do we in this school know the key competencies?

What I've learned from speaking with teachers is that

Relating is at the heart of each competency –

whether it's Relating to Self,

Relating to Others,

Relating to the community,

Relating to the Language, symbols and texts around us,

or relating to our own thinking and the ideas that others offer us.

And in that – relational space becomes pedagogical space as the competencies – however we might know them – are at the heart of learning.

Thank you Jo, Ana, Tai and Ruby for coming together today, and to those of you viewing this presentation – thank you for giving up your time to listen.

Ka kite.