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Research supervision practices in New Zealand postgraduate geography: capacity-capability potentialities

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Abstract

Little is known about how disciplines have developed in the late 20th and early 21st century within rapidly changing and sometimes contradictory institutional, national and global contexts. These include influences of the: rise in globalising higher education; privileging of research as the distinguishing activity of universities; calls for interdisciplinarity to address complex issues; national efforts to assess research performance, especially in disciplinary terms; and pressures to 'grow' the postgraduate research numbers. In contributing to better understandings of contemporary geography and postgraduate education, this thesis interrogates the emergence of postgraduate research supervision practices in NZ university geography in the period 1993-2008.

The point of entry to this thesis is Harvey's (2000) call on geographers to focus on what it might mean to 'think like a geographer' to ensure the discipline's future. I proceed further to explore both 'thinking and doing like a geographer' and 'thinking and doing geographies' in postgraduate geography education. My research transcends strictly representational approaches, incorporating the 'practice' turn in geography, to draw on and articulate a blend of representational and performative geographies through a post-structural political economy lens. The thesis interrogates NZ's postgraduate geography knowledge production enterprise against a discussion of the changing NZ higher education context and NZ geography's trajectory as a globalising/localising set of knowledges and practices.

In the study period a total of 1208 masters and doctoral geography theses were completed, involving 230 supervisors. The thesis conceptualised research supervision initially as a supervisor-student relation to inform methodological development. First, a broad description of topic emphasis, thesis completions and profile of supervisory involvement was undertaken using government, university and departmental data sources. Second, the performance of supervision relationships was then explored by constituting new data about supervision practices from (1) abstracts and acknowledgements of the theses and (2) interviews of students and supervisors relating to practices they encountered when supervised or when used in the course of supervision. These methodologies allowed

supervisor-student relations to be examined as a gradually emerging assemblage of identified, grounded and critiqued practices. The approaches revealed a gradual move away from more disciplinary-centric research practices to more outward-oriented, border-crossing engagements. Third, a review of 'good' supervisory practices identified in the burgeoning international education literature in the late 2000s identified new understandings about the supervisor-student relation. A re-framing of supervision as pedagogy makes the object of inquiry the student-supervisor-knowledge relation. Reading away from the empirical evidence, and informed by the new international understandings from the educational literature, NZ postgraduate geography research supervision practices were revisited. Voices of supervisors and students elucidate co-learning, co-production and other distinctive practices that sustained the postgraduate geography enterprise through changing contexts. Assemblage of these practices, dependent on effective communication, enabled generative work to be done in and from the steadily transforming disciplinary knowledge space in NZ.

The thesis argues that supervision as pedagogy, with its framing of the triad of student-supervisor-knowledge, demands attention to research capacities and capabilities to enable new lines of knowledge production to be performed. The insights from NZ's postgraduate research supervision trajectory inform framings and guiding questions for explicitly considering how research capacity-capability might be built. It is concluded that working simultaneously with representational and performative approaches will nurture geography's future as a generative discipline.

Key words

borders, capability, capacity, co-learning, distinctive, geography, knowledge spaces, pedagogy, performativity, postgraduate, post-structural political economy, practices, supervision, supervisor-student-knowledge relations

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Glossary

AAG	Association of American Geographers
AGM	Annual General Meeting
APV	Asia Pacific Viewpoint
ARWU	Academic Ranking of World Universities
AUT	Auckland University of Technology
BRCSS	Building Research Capability in the Social Sciences
CETLs	Centres of Excellence in Teaching and Learning
CoP	Communities of Practice
CoREs	National Centres of Research Excellence
CRI	Crown Research Institute
CUAP	Committee on University Academic Programmes
EDGE	Enhancing Departments and Graduate Education
EFTS	Equivalent Full-Time Students
GeoEd	Geography Education
IAG	Institute of Australian Geographers
IBG	Institute of British Geographers
IGU	International Geographic Union
INLT	International Network of Learning and Teaching Geography in Higher Education
IRGEE	International Research in Geographical and Environmental Education
JGHE	Journal of Geography in Higher Education
MoRST	Ministry of Research, Science and Technology
NZ	New Zealand
NZG	New Zealand Geographer
NZIDRS	New Zealand International Doctoral Research Scholarships
NZJG	New Zealand Journal of Geography

NZGS	New Zealand Geographical Society
PBRF	Performance Based Research Fund
PIS	Participant Information Sheet
PreSS	Postgraduate Research Student Support
PSPE	Post-Structural Political Economy
RGS	Royal Geographical Society
RIGEO	Review of International Geographical Education Online
RMA	Resource Management Act
TEC	Tertiary Education Commission
ToW	Treaty of Waitangi
UK	United Kingdom
US	United States

Chapter 1. Moving beyond a representational to a more performative geography

[N]ow seems the moment when geographers are superbly placed to be in a central guiding force within the networks of knowledge being created by widespread appeal to analogical reason throughout all spheres of academic activity. But for geographers to take advantage of this positionality, it is necessary to abandon essentialist attitudes... There is, I insist, no "nature" of geography to be found. The search for such an essence is profoundly misplaced if not counterproductive... But "thinking like a geographer" is everywhere. Learning to think "soundly" and "properly" as a geographer is a profoundly important attribute in today's world. This is where the unified methodological field of geography is to be found at work. (Harvey, 2000, p. 11)

1.1. 'Thinking like a geographer'

Professor David Harvey (2000) presented pivotal thoughts concerning the existence of *geographical knowledges* and on what geography needs to focus to remain a successful, coherent discipline. Harvey called for a shift away from dead-end representational efforts to summarise the multiplicity of 'what' geographical knowledges exist as a meaningful *definition* of geography. He viewed claims to hybridity, exceptionalism or models of higher order synthesis as unhelpful to the discipline's cause. To Harvey "'(t)hinking like a geographer"...entails...understanding...how the four structural pillars¹ of geographical knowledges can be worked and woven together in specific instances and settings to produce profounder insights into socio-ecological conditions and processes of change. There are some deep commonalities and unities in how seemingly disparate geographical knowledges are structured and it is surely worthwhile *examining more carefully how such structures work* (emphasis added)" (p. 10). Harvey proposed a focus on the performative - developing distinctive geographical *methodological frameworks* (or *practices*) that encapsulate 'how', 'where', 'when', 'why' and 'by whom' geographic knowledges are created. He recognised multiple geographic knowledges produced at multiple sites within and beyond the academy.

¹ Harvey (2000) identified four common structural elements of geographical knowledges: 'Cartographic Identifications', 'The Measure of Space-Time', 'Place/Region/Territory' and 'Environmental Qualities and the Relation to Nature'.

1.2. Research capitalising on geography's distinctive strengths

As an internationally aware geography student and university educator² I claim at least three positive characteristics of geography. I provide here an initial overview which indicates why I felt committing to an investigation of geography was a worthwhile educational objective. My motivation was undeniably influenced by my positive and stimulating experiences in geography. To my mind one strength of geography is that there is something distinctive about many of geography's practices. Anecdotal evidence from undertaking university education in NZ since 1991³ suggested to me that a geography education offered: academic and applied research-based learning experiences through significant engagement in field and laboratory work; co-learning opportunities; reflexive and self-critical understandings; inherent inter-disciplinarity bridging the physical and human worlds; and a holistic approach to researching human–environment relations through being at the interface of many other disciplines. These were not strong features of other disciplines in the 1990s.

The literature supported my observations. Geography is traditionally a strong research-based discipline with a long history of heavily research-informed teaching and learning practices (Clark, 1997; Jenkins, 2000; Sauer, 1956). Cooke and Gardiner (2004) acknowledged the ways geography contributes to “interdisciplinary understanding of the way the world works, which requires interaction between the sciences and between science, social science and the humanities” (p. x).

Within the globalising knowledge economy there has been increased desire for knowledge to make theoretical and practical contributions, within and beyond the academy. This prompted a move from pure, academic, investigator-initiated and discipline-centred (Mode one) research; to applied, context-driven, problem-focused and inter- or trans-disciplinary knowledge production, involving academic and non-academic/applied contributions (Mode

² I use my experiences as a university geography student over two decades, combined with my thirteen years' experience as a cross-disciplinary educator to justify the explicit inclusion of my own experiences in this thesis.

³ I completed my bachelor and master degrees at the University of Auckland. Undertaking a master's thesis topic positioned within a district council and crown research institute (CRI) project, I collaborated with academics and postgraduate students from other geography departments in NZ. My experience was not typical of postgraduate students at the time.

two) (Gibbons, Limoges, Nowotny, Schwartzman, Scott & Trow, 1994). Later Giddens (1998) termed this transition ‘third wayism’, Bereiter (2002) coined this ‘knowledge building’, then Gilbert (2005) described it as a ‘third way’ comprising ‘real-research’. Geography’s long-standing focus on such forms of knowledge production has given the discipline a competitive advantage in this globalising knowledge economy.

A second strength is that geographers’ strong interest in pedagogy has clarified, reinforced and further developed research practices, inside geography, often with a view to engaging outside geography (Chalmers & Keown, 2003). Evidence of geography’s focus on pedagogy includes the contents of the *Journal of Geography in Higher Education (JGHE)*⁴ and the *International Research in Geographical and Environmental Education (IRGEE)* journal⁵; formation of the International Network of Learning and Teaching (INLT)⁶ Geography in Higher Education in 1999 in Hawaii, USA⁷; contributions of the Association of American Geographers (AAG) to pedagogical research and development of teaching, learning and research resources⁸; geography’s strong involvement in four of the Centres of Excellence in Teaching and Learning (CETLs) commissioned in 2005 in the UK (Chalkley, 2006); and several geography academics who devoted significant energy to reflecting on teaching, learning and research practices within and beyond geography.

A third strength of geography since the late 1990s is the ‘spatial turn’, evident across many sciences and social sciences. This turn highlighted the relevance of geography to contemporary research endeavours within other disciplines, involving the introduction of geographic thought, methodology and terminology such as “(p)lace and space, territory and topography, cartography and scale, borders and boundaries” (Finnegan, 2008, p. 369) to other disciplinary contexts (Gieryn, 2000; Gunn, 2001; Yanni, 2005). Academic activities

⁴ The *JGHE* emerged in 1977. Geography is one of few disciplines to have journals devoted to higher education pedagogy. In 2009 the *JGHE* had an impact factor of 1.125 and was ranked 31st out of 51 geography journals and 26th out of 125 education and educational research journals on the Social Sciences Citation Index (SSCI).

⁵ The IRGEE was first published in 1992.

⁶ For detail regarding the INLT refer to section 2.1.5 in chapter two.

⁷ The INLT was founded under the guidance of Mick Healey, Ken Foote and Iain Hay (Healey, Foote, & Hay, 2000).

⁸ For further information on the AAG’s pedagogical contributions visit: www.aag.org.

including masterate and doctoral research processes and theses are littered with spatial language, metaphors and practices. A critique of my publications and teaching resources shows that my cross-disciplinary work has been enriched by such geographical/spatial metaphors as ‘journey’, ‘transition’, ‘map’, ‘road map’, ‘sign posts’, ‘place’ and ‘destination’.

Geography’s distinctive positive attributes positioned it well in neo-liberalising conditions and a globalising knowledge economy, both characterised by increased and often conflicting accountability and efficiency pressures around research, teaching, learning and service activities. Nevertheless, geography had its fair share of challenges, evident in the literature and through my experiences of school and university geography in NZ.

The geography literature raised and responded to difficult questions around geography as a discipline. These related to geography’s future as a discipline, an identity crisis, popularised misconceptions and misrepresentations of the discipline, and its diverse and divided nature (Bonnett, 2003). Contemporary academic geography like many disciplines (Fahy, Hurley, Hooley, & DeLuca, 2009) faced increasing competition for students, research funding and other resources. Geography’s positive attributes and challenges justify undertaking research that elucidates geography’s identity and increases its visibility.

1.3. Research topic development

At the outset of this research I had five years’ experience as a cross-disciplinary educator after completing a Bachelor then Master of Science in geography. I attributed my ability to advise students on a diversity of topics, from academic writing to quantitative data analysis, to my education in human and physical geography. I was keen to complete a PhD that combined my passions for both geography and pedagogy in higher education.

In August 2003 I commenced a PhD drawing on what I deemed the pedagogical, content knowledge production and graduate profile⁹ strengths of geography (already outlined in section 1.2). I extended Harvey’s (2000) challenge of “thinking like a geographer” (p. 11)

⁹ Graduate profiles incorporate the content knowledges, learning, research and transferable skills, attitudes, values and beliefs students are expected to exhibit upon completing undergraduate, masterate or doctoral degrees.

to ‘thinking and doing like a geographer’. Upon first meeting with my supervisor, also passionate about geography and pedagogy, I proposed a longitudinal study of geography students over their undergraduate degree. Initially, I posed the questions: ‘What distinctive knowledges, transferable skills, values, attitudes and beliefs could be attributed to a university geography education that produces graduates who are successful and in high demand across a diversity of professions?’; ‘What might it mean, and what distinctive insights might emerge, by thinking geographically about higher education?’; and ‘How might these distinctive insights be used by geographers to gain greater prominence in terms of the contributions that they make and can make to both academic and policy discussions and agenda?’

From August 2003 to 2004, I reviewed the geography and higher education literatures and in July 2004 I participated in the International Geographic Union (IGU)¹⁰ conference and INLT workshop in Glasgow. These activities showed that much empirical and theoretical work had been undertaken and published internationally regarding ‘thinking and doing geography *in* higher education’ and ‘thinking geographically *about* higher education’. This work was mostly concerned with the teaching and learning of undergraduate geography, with some on masters’ taught courses. Additionally, there was an emerging body of work concerned with the links between geography and higher education reforms. I saw potential for my doctorate to focus on postgraduate geography education. I was particularly inspired by my supervisor’s IGU conference presentation concerning geography postgraduates.

This limited focus on master’s and doctoral education in geography was problematic given that research was becoming key on political agenda and closely scrutinised at international, nation-state and university levels (Boud & Lee, 2009). It was an era when the higher education field was taking new and renewed interest in research and research education, particularly doctoral studies (Walker & Thomson, 2010c).

I was pleased to see within the Higher Education field the publication of two companion edited books: *The Routledge Doctoral Supervisor’s Companion: Supporting effective*

¹⁰ For more information on the IGU see <http://www.igu-net.org/uk/igu.html>.

research in Education and the Social Sciences (Walker & Thomson, 2010b) and *The Routledge Doctoral Student's Companion: Getting to grips with Research in Education and the Social Sciences* (Thomson & Walker, 2010). These two companions aimed to bring new insights to the supervision of doctorates. Nevertheless, as a higher education practitioner who sees the potential in the collaborative roles, responsibilities and understandings of supervisors and students within postgraduate research pedagogical practices, I would have preferred both volumes to be intended for supervisor and student readership.

Two distinct gaps in geography and higher education literatures were significant in developing my research topic. The first was the *lack of investigation of geography masterate and doctoral research education*. The second was that *supervision relations were still not well understood*, despite an emerging body of literature concerned with postgraduate research education. Thus my thesis uncovers evidence of distinctive practices of postgraduate geography education in NZ.

1.4. Overall aim of thesis

I consequently focused on answering the question ‘what distinctive insights might emerge from ‘thinking and doing like a geographer’ through exploring postgraduate geography supervision practices in NZ?’ In other words: ‘What are the distinctive and generative supervision practices that postgraduate geography students, supervisors and other stakeholders in NZ have performed?’ This thesis aims to make the distinctive and generative supervision practices (Le Heron, 2010) of postgraduate geography education in NZ more visible. A broader aspiration is to help further shape NZ geography’s identity. My research has the potential to contribute to postgraduate geography research and NZ geography generally, as well as broader political agenda of universities, nation-states and internationally.

1.5. Contributions of the research

Here I provide justifications for exploring postgraduate geography supervision practices and their research capacity and capability building potentialities within NZ since 1993.

Each sub-section illuminates any original arguments and contribution(s) made within each chapter.

1.5.1. Moving from core-periphery to globalising geographies

I argue the importance of moving from ‘core-periphery’ conceptions of geography to a ‘globalising geography’ framework to help reveal the distinctive geographies of geographical practices of different nations.

Consideration of globalising geographical research practices and knowledge spaces is comparatively limited. Aalbers and Rossi (2006) proposed the formation of European geography writing and publication space, while Le Heron and Lewis (2007) examined “*Globalizing economic geographies in the context of globalizing higher education*” (p. 5) from a NZ perspective. *I extend Le Heron and Lewis’s work by elucidating NZ’s globalising geographies in the context of NZ’s globalising higher education.*

In chapter two I provide the contextual frameworks for my research in relation to the geography discipline first at the ‘international cores’, and then within the NZ ‘periphery’. There are several key contexts that I focus on including: the long-standing human-physical geography divide; the different geographic knowledges existing at multiple sites, within and beyond the academy; and the devotion of many geographers to pedagogical matters.

Space and place matter for knowledge production (Monk, 1994). NZ and NZ geography are unique. Although NZ’s land area is fairly equivalent to that of the UK, the population is significantly less: about 4.5 million people. *NZ’s small population and limited number of universities,¹¹ make it a valuable case study to explore postgraduate geography education practices and knowledge spaces at the national scale.*

Despite physical isolation, NZ geographers have developed strong international awareness and connectedness into international research communities through which the discipline contributes to the country’s globalising research endeavours. The nation’s geography has moved from being overwhelmingly influenced by overseas developments and literature, to

¹¹ NZ has eight universities, seven that offer geography as a field of study and six that house geography programmes.

having a marked presence within, and influence on globalising geography. I discuss globalising higher education and geography from a NZ perspective. Globalising geography is an outcome of globalising higher education. Simultaneously, geography has impacted on globalising higher education and more broadly globalising knowledge economies. I argue that *academic geography rather than just catering to market forces is a catalyst for change in a globalising knowledge economy.*

In chapter two I reveal how NZ geography as a relatively diverse community has researched and periodically worked on and rethought itself, without strategic and systematic co-ordination. This has been facilitated by conferences and other bursts of activities by academics, resulting in formative and generative developments.

Rather than preparation for ‘professional roles’ per se, postgraduate geography education in NZ focused on research training then research capacity-capability building. Anecdotal evidence suggested that geography masterate or PhD graduates were recruited to diverse roles within NZ and the global market place, mostly outside academia. Many graduates were rewarded with high remuneration packages and promising career trajectories.

The above arguments provided prominent foundational justifications for investigating distinctive generative practices associated with postgraduate geography education in NZ. Further, Peter Jackson¹² in his 2009 address at The University of Auckland (cited in Le Heron & Lewis, 2011) challenged NZ geography academics and postgraduates to identify geography’s distinctive expertise, requiring a focus on the practices of ‘doing’ geography.

1.5.2. Situating NZ geography in neo-liberalising and globalising higher education

I demonstrate that NZ’s geographical knowledges are situated (Le Heron, in press): dependent on and closely linked to, the immediate political, economic, social and physical environment. Chapter three provides a NZ higher education contextual framework. Higher education reforms dating from 1989, moved through two of NZ’s three distinct neo-liberal reform ‘phases’, followed by an after-neoliberal phase (Curtis, 2008; Curtis &

¹² In 2009 Peter Jackson was Professor of Geography, University of Sheffield, UK.

Mathewman, 2005; Larner & Le Heron, 2005). In the early 1990s the university system became increasingly user pays. Government funding was based on equivalent full – time student (EFTS) enrolments with more funding for postgraduates than undergraduates. From 2004, government funding was contingent on qualification completions.

Disciplines and universities took strategic measures to survive these radical neo-liberal reforms to which geography was not immune. I analyse the relationship between NZ higher education reforms and geography knowledges and pedagogy. Reforms prompted both proactive initiatives and reactive responses in geography departments, and became a research focus of some geography academics and postgraduate students.

My research explores postgraduate geography education since 1993 for three reasons. First, I extend Hammond's (1992) historical account of the institutionalisation of geography in NZ. Second, NZ's higher education reform commenced with the second and third phases of neo-liberalism from 1993. Third, NZ's Resource Management Act (RMA) 1991¹³ substantially increased postgraduate geography education and employment opportunities from 1993.

Geography is part of NZ's research apparatus. Drives by government and universities to compete in, and maximise their contributions to, the globalising knowledge economy and credential inflation, resulted in massification: equal and expanding higher education opportunities for all. Focus on knowledge production saw strategic primacy given to research activities including postgraduate education. Within universities, this led to increased time and other resource conflicts and pressures among teaching, research and service duties.

¹³ The Resource Management Act is NZ's main legislation setting out how the nation's environment should be managed.

1.5.3. Performativity of postgraduate geography with a post-structural political economy lens

In this thesis I draw on Thrift's (1996, 1997, 1999) non-representational theory approach through Le Heron's (2007, 2009), Lewis' (2009) and Lewis, Le Heron and Le Heron's (draft only) post-structural political economy (PSPE) lens, to explore the performativity of postgraduate geography education practices in NZ. Thrift supported a movement to the description of how geographic knowledges are produced rather than simply the production of explanations as geographical knowledges. The PSPE project emphasises the awareness of at least four things: how disciplines perform their practices; how they mobilise their knowledge production politically; how disciplines are implicated in the enactment of new realities; and how they seek to make relevance through practices that are generative of effects and affects. The situatedness of postgraduate geography knowledges and pedagogical practices emerge from drawing on PSPE approaches, in their focus on social relations and contexts. Non-representational theories, PSPE and situated knowledges are each framed in relation to my research in section 4.8 of chapter four.

Trajectories, positionalities and reflexivity were key to my investigation of postgraduate supervision practices. Since the early 1990s, feminist and other critical geographers highlighted the importance of reflecting critically upon the multiple positionalities of the researcher, in relation to other researchers, the research and the researched. These geographers view thinking through the ways in which various identities may influence and shape research encounters, processes and outcomes as critical. Human geographers have been called on to recognise their positionality (Jackson, 1993), to explore the "politics of position" (Smith, 1993, p. 305), and to examine these reflexively (Rose, 1997).

Gilbert (2005) stressed the importance of developing capacities and capabilities of knowing. She argued the "need to see understanding not as mastering or taking in something, not getting the right answer, *but as a process of developing relationships with whatever is to be understood*. We need to pay attention to processes and relationships. We need to attend to the spaces between objects and individuals rather than to the objects and individuals themselves" (p. 91) (emphasis added).

Gilbert (2005) pointed to “evidence that we are in the midst of...a major social and intellectual revolution...that we cannot understand from within our usual frames of reference. We need to think in new ways, but before we can do this, we need to dig down below the surface to our old ways of thinking – to see how they work and how they could be different” (p. 9). Gilbert argued that NZ’s education system should “emphasise multiplicity, diversity, and connectivity, not linearity, uniformity, and autonomy. We need an education system that develops people’s ability to connect with one another, work together across their differences, and add value to each other” (p. 68).

In chapter four the above concepts from geography and broader social science literatures are built on to develop a methodology for exploring postgraduate geography pedagogical practices in NZ since 1993, with the aim to explore the potentiality of cross-referencing multiple sources of empirical data. The methodology involved five phases, where the outcomes of each phase informed the direction of the subsequent phase. This chapter also outlines important aspects of the multiple positionalities and trajectories of my primary supervisor and I, leading up to and through this thesis.

1.5.4. The postgraduate geography knowledge production enterprise in NZ

I perceived that a significant number of geography masters and PhD theses had been completed in NZ¹⁴. However, there was no empirical evidence to support this supposition. Thus, the first empirical data was collected to establish the extent of the ‘*postgraduate geography knowledge production enterprise in NZ*’. I developed a *comprehensive database of geography’s postgraduate research activities across a nation over sixteen years*. The database is based on numbers of theses deposited in the six university libraries where postgraduate geography is a distinct discipline.

Chapter five maps the extent of NZ postgraduate geography and provides information regarding my research population of interest. Since 1993, postgraduate geography has been a significant contributor to the broader postgraduate knowledge production enterprise in NZ and the global and globalising geography knowledge production enterprises. *Between*

¹⁴ My primary supervisor had by 2005 supervised over 75 masterate or doctoral theses.

1993 and 2008, 1208 geography theses were completed in NZ: 1089 masters and 119 doctoral. This represents three to four percent of all theses produced in NZ during that period. These theses were supervised by 228 academics. Supervision loads were unbalanced - around 75 percent of theses were supervised by approximately 25 percent of supervisors. Based on inputs from students and supervisors and outputs of graduates, theses and publications, postgraduate geography represented a serious quantum of knowledge production in NZ.

This substantial knowledge production enterprise has persisted although geography is a non-professional discipline that often has low visibility within universities and is frequently misrepresented through popularised notions of the subject. Moreover, these knowledge production activities continued through, and perhaps despite a plethora of changing contemporary university, broader nation-state political agenda contexts, and planetary pressures, not least of which were the ongoing seismic shifts in NZ's higher education landscape.

1.5.5. Moving to postgraduate pedagogy as an object of study

Cryer (1998) and Humphrey and McCarthy (1999) recognised the trend towards increasing postgraduate student numbers. However, at that time knowledge about postgraduate activities was anecdotal, sporadic and not well recorded (Boud & Lee, 2009). In the 1990s, postgraduate research in most disciplines – although I propose not in geography - focused on the production of academic research outputs: a thesis and perhaps the odd publication (Boud & Lee).

Since 2000, the higher education literature concerned with postgraduate education, particularly doctoral, burgeoned. This reflected postgraduate education becoming a key agenda at nation state and university scales, with substantial funding for research and research capacity and capability building projects, which resulted in significant increases in postgraduate student numbers. This focus on postgraduate research education coincided with an expansion in related conferences, organisations and journals. Universities also placed an increased emphasis on supporting higher degree research students. This included

the formation of graduate schools and deans of graduate studies, plus an increase in scholarships and other sources of funding.

Thinking progressed from traditional notions of postgraduate research to those of postgraduate education. Postgraduate education is concerned with the practices involved in completing postgraduate work and producing graduates for careers within and beyond the academy (Boud & Lee, 2009), and very recently with capability building (Walker, 2010). In chapter six I re-frame the restrictive, dyadic postgraduate geography supervision relation between supervisor and student. I extend the more progressive, triadic postgraduate pedagogy comprising student, supervisor and knowledge agents to consider contextual influences.

Some studies since 1990 (Cumming, 2009; Lee & Green, 1998; Lee & McKenzie, 2008; Pearson, Cowan, & Liston, 2009; Wisker, Robinson, & Shacham, 2007) described and critically examined masterate or doctoral education practices¹⁵, although none focused extensively on postgraduate pedagogical practices across a discipline at the national scale. Boud and Lee (2009) reiterated the need for systematic accounts of postgraduate research and education practices – a contribution this thesis makes. The comprehensive Routledge Doctoral Supervisors companions for supervisors and students respectively, both edited by Pat Thomson and Melanie Walker in 2010, that included dialogues around some capacity-capability building practices (see for example, Walker, 2010), only emerged near the end of this thesis. Very few studies have examined research practices in geography, particularly postgraduate geography pedagogical practices (Le Heron, Trafford, Le Heron & Kearns, 2010).

Chapter six revisits the higher education literature with more specific questions in mind, to establish a set of ‘good’ supervision practices. These practices are then related to the practices described by geography supervisors and students in my research to determine geography’s distinctive and generative practices, one of which is co-learning.

¹⁵ A plethora of advice books exist for masterate and doctoral students (including one co-authored by me). Somewhat fewer books guide supervisors of such research projects.

1.5.6. Revealing co-learning and co-production as generative pedagogical practices

Since around 2000, co-learning (Le Heron, Baker, & McEwen, 2006) and co-production (Lee & Green, 2004) have been considered effective practices for postgraduate knowledge production. Both co-learning and co-production involved supervisors and students working and learning together. In chapter six I reveal co-learning co-production as a generative pedagogical practice within postgraduate geography in NZ.

In the higher education literature co-learning appears to encompass and supersede co-production, as the former considers supervisor(s), student(s), process(es) and product(s), whereas the latter focuses only on product(s). This notion of the relation between co-learning and co-production does not align with postgraduate pedagogy comprising relations among supervisors, students, knowledges, spaces and time. Therefore in this thesis I adopt the view espoused by Le Heron, E., Le Heron and Lewis (2011) that co-production is contingent on co-learning. Co-learning involves the effective blurring of boundaries and occupation of spaces among teaching, learning, research, and even service activities. For co-learning, supervisors and students must work together to assemble generative practices. I demonstrate the successes and challenges of co-learning within postgraduate geography education in NZ since 1993.

1.5.7. Re-framing - from communities of practice to generative knowledge spaces

Since the 1990s in the educational literature, disciplinary activities have often been framed as communities of practice (CoP): where learning of apprentices takes place in social contents (Lave & Wenger, 1991). Throughout the 1990s each NZ geography department exhibited many characteristics of CoP (chapter seven). Space, place, size of community and sense of belonging were significant for postgraduate pedagogical practices. By 2000 the CoP model was insufficient to comprehend postgraduate geography research activities. Generative, sometimes termed progressive (Le Heron, 2007; Massey, 2005), knowledge spaces better inform the milieu constituted by geography pedagogical practices since the turn of the century, emerging out of strong CoP foundations.

The heuristic knowledge spaces resonated closely with some ideas in the INLT Geography framework (Hay, Foote, & Healey, 2000). Knowledge spaces included the physical, relational, virtual and/or metaphorical spaces in which knowledge production takes place, existing at multiple scales from the global to individual supervision relations. The knowledge spaces idea is a way of thinking about the performativity of practices and processes. A knowledge space is an object concerned with social relations of knowledge. One outcome of globalising knowledge economies on higher education and research has been drives to create new knowledge spaces at a range of scales encompassing a range of actors.

Knowledge spaces are concerned with the assemblage of practices (Li, 2007): spaces in which knowledge is created/ produced, taught/ learned, disseminated/ shared. There is limited literature and sporadic research concerned with understanding in which spaces knowledge is produced and how knowledge is produced within such spaces. *My thesis is concerned with where and how knowledge is produced (knowledge spaces) and with what knowledge is produced.*

1.5.8. Realising potentialities from crossing disciplinary, academic-non academic and international borders

Chapter eight engages in a comprehensive discussion of border work and border crossing. Overall, my research reveals how NZ geographers have engaged with boundary relations of and around the academy, industry, science, policy, and the community. It focuses on how both the research and the supervisors and students engaged in this work occupy spaces between disciplines, across disciplines, among teaching research and learning, and across nations.

1.5.9. Distinctive, generative practices for research capacity and capability building

Gibson-Graham (2008) promoted performativity – a focus on and in practices – for research capacity-capability building. Research capacity and capability building have become key political agendas in many nations, as the globalising knowledge economy

evolves (Hall, 2002; Walker, 2010). Throughout the literature and in much political speak the terms ‘capacity’ and ‘capability’ are often used interchangeably as if they carry no significant differences in meaning. There are a few notable exceptions where distinctions are made. For example, Franks (1999) defined capability as “knowledge, skills and attitudes of the individuals, separately or as a group, and their competence to undertake the responsibilities assigned to them” (p. 52); and capacity as “the overall ability of the individual or group to actually perform the responsibilities” (p. 52). In this thesis I made some important distinctions between the two concepts. Here, research capacity, refers to “‘what is available and what can be grasped, given available understandings’ ” (Le Heron, E. et al., 2011, p. 1404), emphasising the potential to ask and address research questions. Research capability refers to the actual practice and fulfilment of that capacity, emphasising the learning-by-doing aspects of knowledge generation (Le Heron, E. et al., 2011). I perceive that research capability is contingent on research capacity, and that the two sit at opposing ends of the same continuum. Suggestions for how to build research capacities and capabilities, particularly with regard to doctoral education, have begun to emerge in the higher education literature as this thesis comes to a close (Walker, 2010; Walker & Thomson, 2010a).

Chapter nine brings the thesis to a close through a discussion and conclusion around broad strategic propositions about postgraduate geography’s distinctive practices and their capacity-capability potentialities. The significant contributions of this work, together with suggestions for possible further research, are outlined.

1.6. Thesis argument

Despite evidence of geography’s vigorous presence in the academy, little is known about the postgraduate training practices across NZ: the *what*, *how* and the *where* of postgraduate geography knowledge production. This thesis covers some crucial preliminary ground to situate geographic knowledge production spaces and research practices. This includes *an in depth description and discussion of the magnitude, disciplinary subject content, arrangements and contexts of postgraduate research activity in geography in NZ.*

This thesis asks 'How do we understand (postgraduate) geography and especially its research processes and programmes?' It is not simply concerned with what knowledge is produced, but also how, where, for whom and by whom knowledge is produced. This is viewed as a significant contribution because of the primacy awarded by contemporary higher educationalists to the performance of research practices.

The distinctive core of this thesis involves:

- Centering postgraduate pedagogy and associated practices;
- Examining the educational processes in which postgraduate pedagogy is embedded; and
- Embedding postgraduate pedagogy in other institutional processes.

The wider objective is to offer a set of claims about research practices around geography masters and PhDs. The aim of this thesis goes beyond exploring postgraduate geography pedagogical practices developed in the context of the neo-liberalising NZ university system. This thesis is not about geography changing in response to neo-liberalism. Nor does it attempt to reject neo-liberalism using the pedagogical practices associated with postgraduate geography in NZ to suggest that neo-liberalism never existed. The neo-liberal context should not be interpreted as my support for the neo-liberal reforms nor will I extensively discuss arguments for and against the implications of neo-liberal reform on higher education, although a discussion of the reforms for contextual purposes and framing of this thesis is included in chapter three.

This thesis focuses on postgraduate pedagogy as an object of interest. It seeks to provide preliminary answers the questions: what were geography's distinctive postgraduate pedagogical practices? How did these practices develop over time? How were the knowledge spaces that supervisors and postgraduate students inhabited created through day-to-day practices? How did practices enable work at knowledge frontiers and at and across traditional academic borders? And how might these practices build research capacity-capability?

The postgraduate geography knowledge production enterprise and its associated pedagogical practices are framed within different trajectories in chapter two. These include: (1) the relative independence of academic units; (2) the prioritisation of international networking; (3) the reduced collaboration over two decades within NZ geography, exemplified by the failure of the New Zealand Geographical Society (NZGS) conference structure; and (4) the emergence of collaborations of geographers with other social scientists and scientists, for example through the activities of the Building Research Capability in the Social Sciences (BRCSS) Network¹⁶.

I explore the view of practice developers: the supervisors and students engaged in postgraduate research. By addressing postgraduate pedagogical practices, this thesis: (1) establishes the nature of geography's research practices in NZ during the study period; (2) establishes what researchers identified as practices that postgraduate geography students need to experience in NZ geography; and (3) gives broader appreciation of what citizen identities and world views were acquired by NZ postgraduate geography research students.

In the conclusion I develop and relate understandings of postgraduate supervisor-student-knowledge relation practices to questions about research capacity and capability. This draws on recent PSPE developments at The University of Auckland that seek to re-enrich and re-enliven the direction of thinking about 'doing' geography. While this intervention looks to enabling geography's future, I argue it has broader significance to other disciplines.

1.7. Summary

I opened this chapter with an insightful and challenging quote from Harvey (2000) expressing the profound importance of "thinking like a geographer" (p. 11). From this I built my argument to focus on both 'thinking and doing geographies' and 'thinking and doing like a geographer'. Specifically I justified why I chose to explore geography

¹⁶ For more information on BRCSS visit: <http://www.brcss.net.nz/>. BRCSS is a virtual research community encompassing all eight NZ universities that aims to "...support capability building and the development of new research in the social sciences through collaborative networked initiatives..." (BRCSS, 2012, para. 1).

supervision relations as a set of postgraduate pedagogical practices comprising teaching, research, and learning for all involved. I revealed how the magnitude of NZ's postgraduate geography knowledge production enterprise renders it worthy of investigation. My broader intent is to contribute to increasing the visibility of geography generally, and in NZ specifically. I explained how this was an original piece of work, and detailed in turn each original contribution the thesis makes by positioning my research within the international geography and higher education literatures. I shared my personal interest in the topic, and my intellectual trajectories and multiple positionalities in relation to the research. I then introduced relevant theoretical and methodological concepts that together provide the intellectual trajectory for informing the research methodology: practices, knowledge spaces, situated knowledges, trajectories, post-structural political economy, and non- or beyond- representational theories.

Chapter two provides the contextual framework for this research in relation to the geography discipline moving from the international cores to the NZ periphery. There are several key contexts that I focus on. One is the long standing human-physical geography divide. A second is a discussion around how NZ geography is internationally connected and influenced by overseas developments and literature. I also consider geography in relation to other disciplines. I discuss globalising higher education and geography from a NZ perspective. Through the chapter I argue the importance of moving from core-periphery notions of international geography to globalising geography in making geography more visible and ensuring its future as a discipline.

Chapter 2. Localising-globalising geography knowledge spaces for 'thinking and doing geographies'

A big challenge for us as a community of either past or present teachers and scholars in the...geographical sciences is to...demonstrate the relevance of our teaching and knowledge production and take ownership of our destiny. This can be best achieved by leading the way in terms of identifying the big challenges we face as a nation and a planet with a burgeoning population and a myriad of associated pressures and demonstrating to our vast array of stakeholders the nature of our contributions to problem identification and resolution and the critical part we play in the knowledge and financial economy of the nation. (McGregor, 2010, p. 1)

2.1. Geography as a generative disciplinary knowledge space

McGregor (2010)¹⁷, above, pragmatically described the role geography could play in the future of universities and a nation's economy. He begins in representational terms – using the word 'demonstrate'; but ends hinting strongly of agenda setting and other targets. Framed in performative language, this is a claim that we *make* our relevance. He challenged geographers to take the lead in addressing NZ's environmental issues, joining my call to make what it means to 'think and do geographies' and 'think and do like a geographer' more visible to stakeholders. But, do geographers understand themselves and their practices sufficiently to realise such ambitions?

In beginning to address the question above, I first ask the more foundational question: what does it mean to 'think *and do* geographies' and 'think *and do* like a geographer'? In exploring possible answers to this question, this chapter focuses on *what, where, how* and *by whom* geography knowledges are produced and utilised. I move beyond simply considering representational approaches to geography, including attempts to provide 'a priori' definitions of geography (Johnston, 2004, 2009a, 2009b; Walford, 1996) and debates over geography's relevance (Johnston, 2003; Krause, 2003). I draw on the recent practice turn in geography (Jones & Murphy, 2010) to consider the performative of

¹⁷ In 2010 Professor Glenn McGregor was Director of the School of Environment at the University of Auckland.

geography knowledge production, and engage Harvey's (2000) call to establish a methodological framing, by identifying distinctive geographic practices (Le Heron & Lewis, 2011).

Kastner within Kastner, McCarthy, Thompson, and Weizman (2009) suggested that geography "might be most usefully understood... as an examination of relationships between spatial and discursive practices" (para. 5). According to Kastner et al.:

*The practice of geography is by its nature a ticklish, paradoxical enterprise. It is at once the study of objects and of subjects, of things and of behaviors, of the world around us as a phenomenon producing human activity and produced by it. A realization of the **generative** potential in such dichotomies—between the material and the symbolic, between places as conceived and places as experienced, between spatial and temporal models of existential understanding—has long influenced the academic discipline of geography. (para. 2) (emphasis added)*

2.1.1. Problematising academic geography's Anglo-American dominance

Continental Europe, the US and the UK are perceived as the global cores of geography (Gregory, 1994). More recent national geography activities, including those in NZ, have been referred to as 'peripheral' or 'antipodean'. Prominence of core geographies has arguably reduced the global visibility of significant peripheral geographies.

Geographic knowledges are situated. Despite international commonalities, geography in each nation has distinctive characteristics. So too, 'thinking and doing like a geographer' is different across space, including between the cores and peripheries. This chapter first provides a global geography contextual framework for situating NZ geography knowledge production. I outline 'core' academic geography influences on NZ geography. Secondly I discuss the history and evolution of NZ geography. Focusing on distinctive characteristics and trajectories in and of NZ geography increases the visibility of its activities.

I then demonstrate significant contributions of NZ geography to international geography activities. I show how, despite its peripheral (dis)position, contemporary NZ geography is internationally connected, influenced by overseas developments and literature (particularly from the US and UK cores) and visible on the global stage. I propose moving from 'core-peripheral geographies' to 'localising-globalising geographies' as a more appropriate

representational and performative frame for promoting the contributions of distinctive localising geographies to globalising geographies and the globalising knowledge economy.

The content of this chapter is embedded within a number of geographical trajectories that interact to influence postgraduate geography education knowledge spaces and their associated practices. These trajectories include: (1) international currents of significance; (2) re-framing much of the existing assessment of geography by geographers; (3) trajectories of, and in NZ geography; (4) specialisations in units e.g. feminist geography; and (5) specialisations across the subject such as coastal, economic geography and agro-foods.

2.1.2. Geography's inherent interdisciplinarity: tensions and expectations over the human-physical divide

Original understandings of geography have gradually been diversified through more precise sub-disciplinary pursuits and identities. Academic geography has also been influenced by how academic knowledges have been produced, altered, and transported within and between places, how knowledges increase and decrease in popularity, or are challenged and critiqued over time and across space.

Geographers have documented several individual examples of their research and teaching successes in sub-disciplinary practices. However, without coherent links among these efforts, seldom has the whole been seen as more than the sum of its parts (Clifford, 2002) in terms of university accountabilities. Optimistically, Withers and Mayhew (2002, p. 26) pointed out that:

plurality in geography's past...can surely encourage us to question the scope, purpose and intellectual affiliations of geography. It can, in short, generate new modes of self reflection, new forms of critical human geography, which expand our vistas about what the discipline can be by freeing us from misapprehensions concerning what the discipline has been about.

Academic geography, occupying the space and bridging the gap between the sciences and humanities, is inherently a physical and social science. Geography's most fundamental sub-

disciplinary division has distinguished between the physical and human realms. One influence on this division was the twentieth century fragmentation of science into the physical sciences and social sciences. Another was the emergence of different theories on the comparative statuses of humans and nature.

Persistence of this human-physical divide has established and defined the spaces in which most geographical practices, especially research practices, continue to occur (Gibson, 2009). Physical and human geographers are typically not “regularly engaged in thinking across the divide, in establishing intellectual common ground and shared concerns with colleagues from the other side of the discipline” (Iveson & Neave, 2010, p. 581).

Bridging the human-physical divide and presenting a coherent account of what geography does are necessary for the discipline’s survival (Harrison, Massey, Richards, Magilligan, Thrift, & Bender, 2004). Thrift (in Harrison et al., 2004) highlighted that “Vice-Chancellors are often very suspicious of geography because it does not produce a strong narrative of itself” (p. 439).

There are also sound ethical and intellectual reasons to bridge the human-physical divide. Many geographers believed such a unified geography discipline could potentially be at the frontier of addressing contemporary, national or global environmental issues (Cutter, Golledge, & Graf, 2002; Gibson, 2007; McGregor, 2010). Richards (in Harrison et al., 2004) believed that geographers have a moral obligation to ensure integration and unity of their discipline, given the threats related to human impact on the physical environment.

There have been several efforts to span the human-physical divide. Harrison et al. (2004) convened a meeting at the Royal Geographical Society (RGS) with the Institute of British Geographers (IBG) annual conference in London in 2003 that investigated and debated “some of the ways in which human and physical geography could (and should?) reopen a dialogue” (p. 435). They proposed “(a)t a time when so many 'issues' cross the divide between physical and human sciences, geography could (should) be playing a leading role” (p. 435).

Iveson and Neave (2010) taught across the human-physical divide. They integrated the human and physical realms within a first year undergraduate course. These geographers “were quite determined not to simply replace distinct ‘first-year human geography’ and ‘first-year physical geography’ courses with one course which had two separate halves, thereby replicating the divide within a shared unit rather than bridging it. Rather, ...[they]...sought ways to model a form of geographical inquiry that is unified, even as it maintains a healthy diversity of approaches and concerns” (p. 582).

Geography has been described as ‘inherently inter-disciplinary’ (Fitzsimmons, 2004; Schoenberger, 2001), with a largely unrealised potential to make significant contributions to relations between the social and physical sciences. Given claims for such inherent interdisciplinarity, Sauer (1956) warned geographers to ensure that their roles are not perceived to be limited to the synthesis of knowledge that has been produced by non-geographers. In 2010, Peter Jackson (cited in Le Heron & Lewis, 2011) highlighted that pressure from governments, funding agencies and universities for interdisciplinary research means that geography can no longer claim sole ownership of interdisciplinary spaces.

But Harvey (2000) warned that while universities generate much disciplinary-specific geographical information, geographical knowledges are applied throughout all research and educational contexts. Baerwald (2010) highlighted that many geographers argue that geography’s integrated yet outward looking approaches, from its occupation of an interdisciplinary space, remained the discipline’s competitive advantage.

My empirical research considers the anticipated realities of these inherently interdisciplinary spaces in postgraduate geography education in NZ. This includes considering *what practices can be said, or not said, actually constitute ‘thinking and doing geographies’ and ‘thinking and doing like a geographer’ across the human-physical divide.*

2.1.3. Re-framing away from defining geography

Defining geography has proved challenging and created much debate. Several geographers, (including Johnston, 2004 and Walford, 1996), addressed what geography is and described the diversity in geographies existing through time and across space. Most of these geographers expressed difficulty in providing a single definition and clear identity for geography. Nevertheless, I believe from the range of definitions offered that, in essence geography considers the relationships between, and interactions of, people to their environment through explorations of space and place (representations). I also take from the literature that geographers' traditional methods of inquiry have been representational approaches, asking three essential questions: 'WHAT are the phenomena of interest?' 'WHERE are the phenomena located?' and 'WHY are the phenomena located where they are?'¹⁸

Harvey's (2000) contention was that it is "dangerous to presume there is some settled way of understanding or a unified field of knowledge called "geography" even within the academy. A "discipline" that ranges from palaeo-ecology and desert morphologies to postmodernist and queer geography obviously has an identity problem" (p. 1). Harvey suggested it unrealistic to settle on a definition of geography that will satisfy all. I will not attempt to provide an all-encompassing definition of geography. Such *representational considerations over-simplify geographic inquiry and are not particularly helpful in enhancing the discipline's visibility*. Geographers are better to focus on distinctive and generative practices that serve to nurture geography as a discipline.

Harvey also urged geographers to find a methodological foundation, and argued for a practice-performance methodology. This methodological turn was picked up in the 2000s by Henry Yeung (for example 2001, 2003), Anderson and Harrison (2010) and others through practice and non-representational theory endeavours. I agree that such *non-representational inquiry – focused on the performative – enhances geography's visibility should be actively prioritised*.

¹⁸ One recent exception is a national understanding of the "Nature and extent of Geography" (Australian Learning and Teaching Council, 2010, p. 9) in Australia, in both representational and performative terms, agreed upon as part of a major academic standards project.

2.1.4. Multiple sites and multiple geographic knowledges

The IGU, an important collective international community of geography oriented scholars, promotes the production and dissemination of geographic knowledges among nations – globalising geographies. Each country also has national associations or societies, such as the AAG (US), the IBG and RGS (UK), the Institute of Australian Geographers (IAG) (Australia) and the NZGS (NZ) to promote the geographies of each nation – localising geographies.

Harvey (2000) highlighted that geographic knowledges are produced and employed differently at a range of sites and in diverse fields within and beyond the academy, due to their flexibility and transferability. This implies that geographic knowledges would be understood and their associated practices performed differently at each site. Therefore, Harvey (2000) called for “careful studies of how geography as a mode of understanding is formulated, used and applied in different institutional settings...(and)...to better understand the links between geographical discourses which emanate from particular institutions and the way geographical knowledges are created and taught both with and without the specific discipline of Geography” (p. 1). My investigation acknowledges that geographic knowledges are produced and/ or consumed at different sites both within and beyond the academy.

2.1.5. Placing and instating geography pedagogy

A review of the literature showed that much work had already been undertaken in terms of ‘thinking and doing geography’ in higher education and thinking geographically about higher education. This work was mostly concerned with teaching and learning undergraduate geography, less with masters taught courses, and masters/PhD research. Much literature came out of the UK and US, and was published in the *JGHE*, established in 1977. Geographers who have devoted significant time to pedagogical matters (listed here alphabetically by family name) include Professor Robert Bednarz (US), Professor Sarah Bednarz (US), Professor Kenneth Foote (US), Professor Iain Hay (Australia), Professor

Mick Healey (UK), Emeritus Professor Alan Jenkins (UK), Professor Pauline Kneale (UK), Professor Janice Monk (US) and Dr. Michael Solem (US).

There had been a piecemeal and specific approach in geography higher education pedagogy research endeavours: individual courses; specific teaching, learning and assessment methods; specific student groups; and factors affecting learning and/or teaching. Little of this research related directly to the NZ situation or other peripheral locations. A notable exception was the categorisation of first year geography students at The University of Auckland to Kolb's Experiential Learning Model (Milicich, Stringer, & Le Heron, 2003). Consequently, there were many gaps in the existing literature.

To glean more international perspectives on the teaching and learning of geography, the INLT geography in higher education was founded in 1999. Twenty eight geographers interested in pedagogical matters met in Honolulu. By November 2010 the INLT list-serve included 365 academics from several nations. The INLT was established:

To promote innovative, creative, and collaborative research as well as critical reflection on learning and teaching of geography

To facilitate the exchange of materials, ideas, and experiences about learning and teaching of geography and to stimulate international dialogue

To create an inclusive international community aimed at raising the profile and status of learning and teaching of geography. (INLT, n.d., para. 2)

Healey, Foote, and Hay (2000) and Healey (2006, pp. 71-72) highlighted five challenges that the INLT continued to face:

meeting the needs of participants;

promoting and increasing numbers of participants;

extending beyond its Anglo-American and Australasian origins;

raising finance and sponsorship to support projects; and

persuading volunteers to put in the time and effort needed to maintain and develop the INLT.

The INLT has held meetings or workshops annually or biannually since 1999. From ten meetings or workshops held until 2011, only one was in Australia, two were in the UK and

the remaining seven were in the US. The outcomes of some workshops included the publication of co-authored papers in the *JGHE* on topics deemed important to contemporary geography higher education. Most topics focused on undergraduate geography and a few on taught postgraduate courses – some of which became highly politicised and increasingly sophisticated. Some themes bore limited resemblance to the NZ situation. This led me to reflect on what an 'inclusive' international community actually meant for INLT, as also addressed in detail by Hay (2008). While claiming to be international, the network's workshops failed to attract participants from beyond the US, UK, Australia, NZ, Chile and Singapore. The AAG was similarly criticised by Le Heron and Lewis (2007) for not having sufficient global reach.

In 2010 the Review of International Geographical Education Online (RIGEO¹⁹) journal was formed. This journal provides open-access publications to enable greater global exchange of geographical education knowledge, but clearly presumes reliable and affordable internet access is available.

There is a distinct gap in the literature concerning postgraduate geography education. The few pieces of literature concerned with postgraduate geography research education since the late 1980s, presented here in chronological order of publication date, focused on:

- an interdisciplinary survey of postgraduate training (Page & Hill, 1986);
- a comparative guide of postgraduate geography departments in the UK (Royal Geographical Society, 1987);
- the value of postgraduate training programmes (Silk, 1987); the future of postgraduate education (Unwin, 1987);
- an example of multi-disciplinary doctoral programmes (Bradford, 1988);
- a comparison of postgraduate geography in North America and Britain (Nowell, 1988);
- changes in Britain's doctoral training programmes (Silk, 1988);
- a critique of the doctoral programme at the University of Edinburgh (Young, 1988);

¹⁹ The website for the RIGEO journal is <http://www.rigeo.org>.

- how restructuring of postgraduate education in the Netherlands and UK impacted on funding and other resource provisions (Verhoeff, 1998);
- the importance of quality supervision (Binns & Potter, 1989);
- transferable skills development of postgraduate students for employment (Cryer, 1998);
- dissertation and thesis writing (Delyser, 2003);
- issues pertaining to the success of the increasing numbers of international postgraduate students (Scheyvens, Wild, & Overton, 2003);
- experiences of completing interdisciplinary PhDs within geography, having undertaken masters degrees in English and ecology respectively (Lau & Pasquini, 2004), where geography provided a forum and language to communicate;
- supervision discourses within the social sciences in NZ including the critique of one geography masters research student/supervisor meeting (Grant, 2005); and
- the effectiveness of honours and masters coursework (McEwen, 2005).

Several publications have emerged from the AAG's Enhancing Departments and Graduate Education (EDGE) project²⁰ that commenced in 2005. In its first phase, until the end of 2009, the project explored: the outcomes of masters and doctoral education in geography; the extent that graduate students are prepared for careers in higher education, government, business, and non-profit organisations; and the factors shaping the experiences of graduate students in the discipline and their readiness for various professions. EDGE project publications directly related to postgraduate research included: Solem, Cheung, and Schlemper (2008); Solem and Foote (2009); and Solem, Lee, and Schlemper (2009).

Three recent articles focused on preparing postgraduate geography students for an academic career. Bärenholdt, Gregson, Everts, Granås, and Healey (2010) demonstrated "that master classes have the potential to further develop advanced-level PhD training, especially through their emphasis on reflexive engagement in the performance of key academic skills" (p. 283). Foote (2010) was concerned with creating a community of support for graduate students and early careers academics. Reid and McCormick (2010)

²⁰ For more information on the EDGE project visit: <http://www.aag.org/EDGE/index.cfm>.

reported on their “experiences of undertaking Economic and Social Research Council (ESRC) and Scottish Government (SG) collaborative PhD studentships in geography, a new studentship which trains doctoral students to be employable in both academe and government” (p. 529).

Oberle, Joseph, and May (2010) showed how geospatial technologies can enhance postgraduate geography education while promoting the value and visibility of geography scholarship across the university by building on the discipline’s inherent interdisciplinarity.

Academic geography has been performed at university through learning, teaching, research and service activities. These have often been perceived in performance reviews, tenure/continuation, promotion and the like as discrete activities that are not closely related to, or informed by, each other. Dwyer (2001), Healey, Bloomhof, and Thomas (2003), Jenkins (2000), and Le Heron et al. (2006) argued for a strong link between research and teaching/learning: research-led teaching and learning: teaching and research underpin learning. There has been an increasing requirement for learning, teaching and research to inform each other and continue to expand the existing knowledge base in a neo-liberalising context that demands efficiency and value for money within a globalising knowledge economy.

2.1.6. Persistence of ‘core’ geography world domination

Much debate has surrounded the increasing international hegemonic position that Anglo-American countries acquired in human geography (Aalbers, 2004; Berg & Kearns, 1998; Gregson, Simonsen, & Vaiou, 2003; Gutiérrez & López-Nieva, 2001; Kitchin, 2003; Moss, Berg, & Desbiens, 2002; Short, Boniche, Kim, & Li Li, 2001; Sidaway & McGregor, 2008; Simonsen, 2002). A strong geographical bias has historically affected the production of scientific knowledge in social sciences (Baber, 2003; Yeung, 2001). From a NZ perspective, I argue that this bias has hindered the building of a more globalising human geographical discipline. It is less clear if such a hegemonic position has existed within the realm of physical geography knowledge production.

Through critiquing high-ranking international geography journals, I discovered that their so-claimed international authorship and content dimensions did not equate to globalising geographies. Higgitt and Haigh (2006) critiqued the success of the *JGHE* in exemplifying effective teaching, learning and research practices in the international context. They warned that “the whole spectre of internationalization can be seen as an uncritical acceptance of the globalization project that threatens to overwhelm traditional approaches with a hegemonic discourse of Western ‘best practice’” (p. 3). These editors welcomed contributions from countries that were comparatively underrepresented, greater international collaboration, and more comparative perspectives. They stated that “the journal hopes to do more to explore and critique the pedagogic dimensions of the internationalization project” (p. 3).

Hay (2008) extended the critique of INLT’s role in geographical knowledge production. Patterns of leadership, membership, meeting and communication demonstrated that “as a global virtual group, INLT may be contributing inadvertently—and against the Network’s own ambitions—to educational and cultural colonization as well as to an intellectually limiting consolidation of Anglo-American and Australasian dominance” (Hay, p. 16). On-line and workshop communications in English and workshop venues limited to the UK, Australia and the US contributed to this trend.

Education, income, university status, language and cultural inequalities, have been proposed as limiting the prospects of globalising geography (Minca, 2000; Olds, 2001; Robinson, 2003). Despite these inequalities, these authors supported the need to increase dialogue and exchange of ideas at a world scale. This was not only a consequence of imperatives from governments and universities to broaden social science research, but also arose from a commitment of scholars and practitioners to build more cross-cultural, post-national spaces for geography research and debate to occur. Aalbers and Rossi (2006) proposed “the process of Europeanising human geography should be sustained ‘from the bottom-up’ by scholars mobilising around the goal of a more international and cohesive geographical research space at the European level” (p. 138). They called for “a more cross-cultural and post-national research and writing space in Europe” (p. 141). In my opinion

*such cross-cultural and post-national spaces require further extension to achieve a stronger presence of geography voices from both cores and peripheries – through localising and globalising geographies*²¹.

International conferences have a significant influence on how truly 'international' geographic knowledge production is, in terms of the venue, the key note speakers, the conference themes, who attends, who presents and what knowledge gets disseminated and critiqued. Le Heron (2009) highlighted the value of reflecting on the one-off experiences of 'rooms and moments' for future knowledge production.

Connell (2007) warned that "(t)he discourse of globalization, with its themes of boundarylessness, common fate and growing integration, constantly hovers on the edge of assertions of global homogeneity, especially in culture. We all use the same technology, we have common consumption styles, we follow the same best practice, and so on" (p. 57). The global reach of US and European imperialism through intellectual colonisation has given western modes of knowledge production the appearance of universal truth and rationality. This has led to collaborations where scholars from less dominant locations may be forced to re-frame and decentre their own knowledge traditions.

Conversely, Featherstone (1995) espoused that "(t)he process of globalization...does not seem to be producing cultural uniformity; rather it makes us aware of new levels of diversity" (pp.13-14). Knowledge production is situated. *Meaning is shaped by both place and time. Where knowledge is produced does matter.* The globalising knowledge economy involves glocalisation: the processes of simultaneously putting the global in the local and the local in the global: thinking globally and acting locally (Roudometof, 2005). This leads to diversity in the knowledges produced.

²¹ In this thesis I use the terms 'localising/globalising' rather than 'localisation/globalisation' or 'localised/globalised' to denote that I view this as an ongoing process.

2.2. External perceptions, positionings and performativities of geography: opportunities or threats

Much review work of geography as a discipline has been conducted in terms of survival strategies to give appropriate visibility to the significant work of the discipline. A large body of literature exists concerned with what academic geography may need to become, to survive and continue to make visible and valued contributions within and beyond neo-liberalisation and throughout global knowledge-based contexts. Several geography academics have addressed and debated rising concern about the future of geography as a unified academic discipline. Articles include: “*Dead geographies – and how to make them live*” (Thrift & Dewsbury, 2000, p. 411); “*Is geography history?*” (Gardner & Craig, 2001, p. 5); “*(Dis)spirited geography?*” (Kearns, 2001, p. 299); “*The future of geography*” (Thrift, 2002, p. 291); “*The future of geography: the debate continues*” (Lynch, 2002, p. 155); “*The future of geography: when the whole is less than the sum of its parts*” (Clifford, 2002, p. 431); and “*The exaggerated death of geography*” (Morgan, 2004, p. 3).

Keen interest in geography’s future has been influenced by declining student enrolment and retention in undergraduate courses, challenges confronting geography departments in terms of restructuring and resource allocation within universities, and issues around geography’s profile beyond the discipline and the academy (Fincher, 2004; Gibson, 2007; Johnston, 2006; Matthews & Herbert, 2004; Thrift, 2002).

Geography academics discussed various ways in which geography might be sustained into the future. Lynch (2002) proposed better communication between geographers and non-geographers to overcome disparities between views of what geography is. Geographers need to better understand their discipline’s practices to better communicate their work. In the opening quote to this chapter, McGregor (2010) emphasised that ‘*thinking and doing like a geographer*’ should be visible at the forefront of national agenda, and that geographers had a responsibility to ensure that this happened.

2.2.1. Secondary schools no longer foundations of academic geography

Neoliberal educational reforms caused a divide between secondary school and university geography (Goudie, 1993). This gap broadened with post-structuralism and the cultural turn (Jackson, 2000; Johnston, Gregory, & Smith, 2000) that influenced academic geography. In most nations, secondary school geography was no longer the foundation for academic geography. There was widespread concern that the divide between secondary school and university geography would lead to a decline in university students studying geography, and therefore threaten geography's future. Gardner and Craig (2001) described a decline in students studying geography at secondary school, particularly in the UK and US, and the likely subsequent decline in students studying geography in higher education. Bonnett (2003) and Chalmers, Keown, and Kent (2002) among others described the increasing pressures on geography's place in the secondary school curriculum and substantial disparities within many countries in the curriculum and teaching of secondary school and university geographies in the 21st century.

The above issues highlighted the need to increase or at least maintain numbers of students studying university geography, and to increase the number of secondary school geography teachers, so that secondary students develop a passion for geography and are therefore more likely to study the subject at university. These goals can be achieved through improving the perception of the value of geography.

2.2.2. Re-positioning geography within universities and the spatial turn

In many universities, geography departments have lost visibility through being merged with other academic departments, such as planning or environmental science (Le Heron & Lewis, 2007), for one of the former departments to remain economically viable. There has also been the breaking away of new subjects such as Development Studies and Environmental Science.

Geographers need to be visibly indispensable in their work, despite the spatial turn described in section 1.2 of chapter one. Harvey (2000) stated that "(i)f academic geography

does not or cannot meet these demands then someone else surely will” (p. 1). Further, Johnston (2004) concluded that “(g)eography will be done - with or without geographers, and whatever it is called!” (p. 14). An important activity for geographers to engage in is to make ‘thinking and doing like a geographer’ more visible.

2.2.3. Popular misconceptions of geography

Academic geography’s future has been threatened: (1) by popular understandings of geography being inconsistent with what geographers practise; and (2) through being insufficiently reflected in popular magazines that contain the words ‘geography’ or ‘geographic’ in their title (Johnston, 2004; 2009a). Johnston suggested that “perhaps what geography needs is both visibility and a clearer link to the popular imagination” (2004, p. 14). Johnston’s (2004, 2009a) argument requires better understanding of university and secondary school geography practices to improve consistency and identity. So, where do academic geographers start to determine what it means to ‘think and do geographies’ and ‘think and do like a geographer’ across the multiple sites of geographic knowledges: with the public, in secondary schools, in non-academic sites, or at home in the academy? I propose the answer is in the academy.

2.2.4. Promoting geography’s transferable skills for non-professional career trajectories

Geography has been a fountainhead of many disciplinary developments in the modernist project. However, the discipline has not mirrored the actions of many other disciplines in explicitly professionalising and institutionalising its expertise: the formalisation of a set of practices that contribute to an ethical code of professional behaviour has not occurred. Geography’s ability to maintain a strong identity and visibility is hindered by this absence of professional status of geographers outside the academy. Geography graduates have populated diverse fields, including professional arenas. For example, it is often heard in the geography community that 30 to 40 percent of those in jobs designated as policy or planning in NZ have one or more geography degrees. With more students completing

PhDs, and limited academic career trajectories, what positive attributes of a geography education need to be made more visible?

A university geography education gives students a diverse range of skills not necessarily acquired through other academic endeavours (Hall, 1999; Hanson, 2003). Many academics have acknowledged the value of geography and geographers to the academy, society and economy (Hanson, 2003; Kneale, 2002; Krause, 2003; Le Heron & Hathaway, 2000). This includes how undergraduate geography learning promotes lifelong learning; the diverse transferable knowledges and skills developed through geography; and that geography and geographers are employed in a wide range of fields both within and beyond the academy. There has been limited research, and none in NZ, on the impact that postgraduate geography research has on the promotion of lifelong learning, the development of transferable skills, the building of research capacities-capabilities or the development of citizenship.

2.3. Distinctive characteristics of NZ geography

So far this chapter has provided contexts and frames largely 'at the cores' from which I now extend to a discussion of NZ geography as a situated knowledge 'at the periphery'. My research considers what effect changing global geography disciplinary contexts have had on local postgraduate geography pedagogical practices in NZ. Simultaneously my locally generated knowledge informs globalising geography.

2.3.1. Emergence and visibility of academic geography in NZ

It may seem almost paradoxical to emphasise visibility for a discipline that has a prominent place in NZ's universities and secondary schools, both integral in the reproduction and redevelopment of NZ geography (Le Heron, 2010). Geography has been taught in NZ universities since 1904 (Gorrie, 1955). By the late 1930s geography was taught at Auckland, Victoria, Canterbury, and Otago university colleges, typically within the economics or geology departments, dependent on whether it aligned more to the human or physical sciences. The first geography department in NZ was established in 1937 at the

Canterbury University College in Christchurch, and the first postgraduate geography degree offered at Canterbury (and in NZ) in 1941 (Hammond, 1992; Johnston, 1981; Moran, 2000). Post World War Two demand for secondary school teachers, and the success of geography at Canterbury saw growth in geography in NZ.

Geography departments were established at Massey University and the University of Waikato in 1960 and 1964 respectively. Therefore, since 1964, academic geography has been practised at six NZ universities.

Throughout the remainder of the 1900s the discipline had a strong identity as an autonomous, independent entity performed within its own department at each university, with limited inter-disciplinary and inter-institutional collaboration, collegiality and engagement (Berg & Roche, 1997). At the University of Otago planning was introduced into the geography department in 1966. At the University of Waikato human and physical geography were separated in 1969 into two distinctly different 'arts' and 'science' schools and faculties, unlike the other five universities where geography has remained a unified discipline. At The University of Auckland, development studies, only available as a subject of study at the postgraduate level, is often taught and researched by academics who are geographers by qualification.

Of the eight NZ universities that existed by the early 2000s, seven had geography programmes, six of which were explicit beyond human geography and the undergraduate level. The exception where geography was not performed as an academic discipline in its own right was Auckland University of Technology, and Lincoln University employed only one lecturer in human geography.

Geography at each university, except the University of Waikato, has a long tradition of being 'pigeon-holed' into either an arts or science faculty. For instance, at The University of Auckland geography is located within the Faculty of Science; while geography at the University of Otago is positioned in the Arts Faculty. This arguably constraining fate is consequential of the traditionally hierarchical structure of NZ universities where all academic disciplines have to be positioned within a faculty.

Attempts to retain the economic viability of academic disciplines in a climate of increased competition for funding and with changing economic and political agenda, have resulted in geography being merged with other disciplines within the NZ university context. NZ geography has not been alone in facing what Sidaway and McGregor (2008) described as the “particular challenges – given the destabilization of disciplines...through years of restructurings” (p. 1). This has been a well-rehearsed theme in both other disciplines (including those that are forced to merge with geography) and for academic geography in other nations. For instance Gibson (2007) undertook a survey of the position of academic geography within Australian universities following restructuring, and of how geographers responded to the opportunities and challenges presented.

Le Heron, et al. (2010) established that over the first decade of the 21st Century, geography's academic units and their names at each university changed markedly. With the restructuring of departments into schools there was concern regarding geography's visibility and autonomy as a discipline. Smith (2006) and Crozier (2006) discussed the impacts of restructuring and 'name changes' on geography at The University of Auckland and Victoria University of Wellington respectively. The survival of geography as a distinct discipline at Auckland has been threatened since 2001 when geography merged with environmental and marine sciences to form the 'School of Geography and Environmental Science'. Geography and environmental science remained physically separated on different campuses. The positives for geography were that it accounted for the majority of staff, student and course numbers, and had foremost recognition in the new name. In 2006 the 'School of Geography and Environmental Science' merged with geology to form the 'School of Geography, Geology and Environmental Science'. At this time environmental science moved campus to relocate with geography. Geology remained in a separate building on the same campus. In 2009 the name was changed to the 'School of Environment', reflecting increased interest in the environment and related funding opportunities.

At Massey University, the name of the school in which geography is housed also no longer makes reference to geography. Geography became embedded first within the 'School of

Global Studies' that a year later was renamed the 'School of People, Environment and Planning'. School name changes typically reflected trends in which research areas attracted the most government or industry funding.

Table 2-1 depicts the historical development and changes in administrative entities from 1934 until 2011, of the geography departments at each of these universities.

Hammond's (1992) PhD interpreted the institutionalisation of NZ geography. Hammond argued that the process of geography becoming institutionalised is an evolving one of interactions between structures and agents. Referring to the situation up to the early 1990s, Hammond stated:

Geography in New Zealand grew to maturity, primarily through the six university departments. The activities of the agents working within the structural conditions of the university environment, reveal how the departments, individually and in concert, have been the sites of the more significant institutionalizing activities, including the contemporary debates relating to feminist approaches and a sensitivity to a Māori perspective in geography...Reinforcing theory with practice, by revisiting the conditions of the structure and agency relationship, is essential to understanding institutionalization which not only probes how geographical practice in New Zealand was initiated but how and why it has been continuously reproduced and transformed. Apprehending this process suggests that the agents within New Zealand geography may benefit from an institutional appraisal of their discipline. A theoretically informed view of the way the discipline evolved, provides clues about conduct of future geographical practice. (pp. xv-xvi)

My thesis builds on Hammond's (1992) work by considering the institutionalisation of geography in NZ throughout the final decade of the 20th century and the first decade of the 21st. Specifically I explore the influence of institutionalisation on geography's postgraduate pedagogical practices.

Unsuccessful attempts to professionalise geography in NZ (in 1995 led by Richard Le Heron at the NZGS conference and Annual General Meeting (AGM); and again in 1999 led by Jochen Albrecht at the NZGS AGM), drew on more than a decade of discussions focused on the professional activities of secondary school geography teachers, geography academics and geography in workplaces. Geography has instead emphasised its research capabilities, often being at the vanguard of inter- and trans-disciplinary initiatives and

intent on maintaining a science and arts identity. This directionality, towards a privileging of science and research professional agenda, is especially important in the NZ context. There has continued to be a focus on interdisciplinary research and teaching. NZ geography has in various ways at different times also contributed to the prerequisite 'intermediate' years or undergraduate qualifications for a number of professional disciplines, such as planning.

Despite restructuring and other contextual changes, many geography academics in NZ continue to argue that geography is a highly visible subject. These academics also claim that geographers are in a strong position to take a strategic role and undertake frontier research in the country. Harris, Lewis, and Le Heron (2010) alluded to the "policy-influencing, rigorously researched nature...[NZ geography]...is characterised by today" (p. 1). In considering this claim preliminary questions emerge:

- How is geography positioned within each university and how do the discipline's activities sit with the objectives of each university?
- Within which faculty is geography housed?
- With which other disciplines is geography housed?
- In what ways are changes in the title of these departments or schools significant?
- What is the disciplinary profile of the academics who teach and research in these 'new' geography places?
- What are the geography degree structures?
- With which other disciplines do geographers work closely?

The answers to these questions are likely to impact on the nature and visibility of practices that distinguish geography within each university.

Table 2-1: History of geography and changes in administrative entities involving geography, by NZ university

University of Auckland	University of Waikato	Massey University	Victoria University of Wellington	University of Canterbury	University of Otago
1946 – Department of Geography established	1964 – Department of Geography formed as fledgling of Auckland department	1960 – Department of Geography established as a sub-department of Victoria University of Wellington	1945 – part-time assistant appointed in physical geography	1934 – First geography course offered	1945 -Department of Geography established
2001 – School of Geography and Environmental Science established	1965 – Department formally separated from Auckland and positioned in the School of Social Sciences	(Palmerston North University College)	1946 – first geography lectureship within Department of Geology	1937 – Department of Geography established	1966 - Introduction of planning
2006 – School of Geography, Geology and Environmental Science	1969 – Physical geography split from human geography and relocated into School of Science	1964 – Department of Geography established	1953 – Department of Geography and Chair of geography established	1939 – Canterbury branch of NZGS established	
2009 – Name change to School of Environment	2005 – Department of Geography, Tourism and Environmental Planning established	2000 – School of Global Studies established	1960 – Pacific Viewpoint journal established		
		2001 – Name change to School of People, Environment and Planning	1997 – School of Earth Sciences established		
			2007 – School of Geography, Environment and Earth Sciences established		

Source: Adapted from Le Heron et al. (2010)

The physical location of each geography department within a campus and NZ; plus the teaching and research interests of the academics working there, influence which academics apply to work there, what gets taught and researched, how geography and geographers engage with other disciplines and the interaction between university and secondary school geography. With a discipline concerned with space and place, the location and proximity of each university in relation to human and physical features, related to the needs of the local environment and community, are significant in terms of both what and how geography research gets done. Kench, Bryan, Hart, Kennedy and Hilton (2008) found that 99 percent of all coastal research theses completed in NZ from 1964 to 2007 were based on NZ sites. They discovered that “(r)esearch projects are also generally constrained within one regional boundary of the host institution” (p. 95).

Berg and Roche (1997) described the need for increased collaboration and collegiality within, among and beyond geography departments to promote survival of the discipline within NZ. Such collaboration and collegiality has not really increased since 1997. Evidence of this is the failure of subsequent NZGS conferences to promote communication and collaboration among geography departments and their postgraduates. However, the NZGS has provided financial support for postgraduate students to attend conferences and funded postgraduate specific conference events. As NZ’s national geography association, the NZGS has, since 2008 attempted to increase interaction among departments. Inter-departmental research collaborations, involving postgraduate research, could play a significant role in achieving such collaboration and collegiality.

2.3.2. NZ Geographical Society

The NZGS was founded in 1939 and incorporated in 1944, when the Canterbury and Wellington Geographical Associations merged (Jobberns, 1945). The NZGS and its regional branches are devoted to the growth of scientific and educational understandings of geography and aim to promote and stimulate the study of geography within NZ: to increase NZ geography’s visibility. NZGS has held regular meetings in conjunction with the affiliated NZ Board of Geography Teachers to facilitate the sharing of ideas and knowledge

between secondary school and university geography. Until 2005 NZGS published two journals: *New Zealand Geographer (NZG)* and *New Zealand Journal of Geography (NZJG)*. The former was a peer reviewed international journal for disseminating geographical knowledge relevant to NZ, Australia and the Asia-Pacific region. The latter was devoted to the distribution of geographical knowledge to the wider educational community of NZ. In 2005 these journals were combined into the *NZG* journal published three times per year by Blackwell Publishing, which became ISI-listed in 2007 (Kearns & Nichol, 2007). Each issue of this journal includes a Geo-Ed²² section containing articles concerned with NZ geography pedagogy.

To me, the 2008 NZGS conference failed to ameliorate persisting divides within NZ geography. The conference fell within the universities' inter-semester breaks but was within the secondary school teaching term. Thus secondary school teachers did not arrive until the Saturday by which time most academics had departed. The BRCSS network provided a limited amount of funding toward postgraduate geography students' costs of attending the conference, provided that they were presenting at the conference. Conference sessions were overwhelmingly dominated by human geography. Attendance at a plenary session titled '*Whither New Zealand Geography?*' was low and predominantly comprised human geographers. The session was advertised as a 'Panel of professors, teachers and postgraduates'. The teacher representative did not arrive as she was declined leave during the teaching term.

The NZGS has maintained strong international connections, having a close relationship with the IAG. Five joint conferences have been held in: Auckland (1992); Hobart, Tasmania (1997); Dunedin (2001); as part of the IGU Regional Conference in Brisbane, Australia (2006); and Christchurch (2010). The NZGS is an IGU member via its membership of the Royal Society of NZ²³.

²² Geo-Ed is an abbreviation for Geography Education.

²³ Refer to <http://www.royalsociety.org.nz/> for further information on the Royal Society of NZ.

2.3.3. Secondary school geography

Geography has a prominent place in NZ's secondary school systems having emerged as a subject in the 1940s. Geography is offered at over 98 percent of NZ secondary schools, under social sciences in the current curriculum, from years 9 to 13.

From 1945 to 1975, secondary school and university geography had close and effective links (Chalmers, 2005). Subsequently, a long-standing disconnect and significant inconsistencies between university geography, geography teacher education, and secondary school geography in NZ has persisted (Chalmers & Keown, 2003; Harris et al., 2010). Roche and Mansvelt (1997) noted the philosophical and methodological disjuncture between secondary and university geography. Keown and McPherson (2004) described how secondary schools continued to focus on regional geographies while universities engaged in 'postmodern' geography incorporating sustainability, ICT skills and multiple perspectives. Harris et al. (2010) claimed that secondary school geography is limited by the curriculum and assessment methods to create certain imaginaries that deter it from aligning with university geography and professional experiences.

Geography teacher education, positioned between university and secondary school geography could be an ideal space for the sharing of knowledge and practices across the educational sectors (Chalmers et al., 2002). However, the effectiveness of such an approach could be of limited value where secondary school geography teachers hold a university qualification with limited or no geography content.

Despite the broad range of subjects offered at most NZ secondary schools, enrolments in geography from Years 9 to 13 have been high. From 2004 to 2009, around 10 to 11 percent of all secondary school students studied geography²⁴. Of the total secondary schools operating from 2004 to 2009, 77 to 80 percent offered geography²⁵.

²⁴ These statistics were calculated from datasets provided on the NZ Government's Ministry of Education Education Counts website: <http://www.educationcounts.govt.nz/>.

²⁵ These statistics were calculated from datasets provided on the NZ Government's Ministry of Education Education Counts website: <http://www.educationcounts.govt.nz/>.

2.3.4. Contemporary university geography

Despite decades of institutionalised geography instruction in schools and universities, ***geographers still remark on their subject's disconnect to, and invisibility in, wider society*** (Connell, 2006; Johnston, 2009a). Connell, a NZ secondary school geography teacher, stated that "(a) question I am repeatedly asked by students considering their future choice of subjects is 'How is geography going to help me when I leave school?'" (p. 221). Geography's disconnect and invisibility arose through a number of influences. First, geography spawned new subject streams in universities: Planning, Tourism, Development Studies, Environmental Science and Environmental Management, generating new foci. Interestingly, these subjects are often taught and researched by academics who graduated in geography, who maintain strong teaching and/or research interests within geography and who refer to themselves as geographers. Second, geography multiplied into new subjects in secondary schools, including Social Studies, Sustainability and Tourism, and contributed to Social Sciences at the senior level.

Third, Harris et al. (2010) acknowledged "the disconnect between geography as a university discipline and the nature of it as a school subject" (p. 1). Fourth, university and geography department surveys of undergraduate geography students demonstrated that only a portion of students who studied geography at secondary school continued to study geography at university, with many students studying geography for the first time at university. Furthermore, geography academics and students perceive the overwhelming success of geography postgraduate research degrees as a passport to employment, suggesting that the degree experience is excellent preparation for the workplace. Nevertheless elements of an identity crisis for geography persist.

Over two percent of the total students enrolled in the several hundred first year courses across all disciplines and universities in NZ from 2004 to 2009.were enrolled in

geography²⁶. These secondary school and university numbers demonstrate that geography is a popular subject worthy of investigation.

Figure 2-1 shows the seven reasons why 432 undergraduate students surveyed by the School of Geography, Geology and Environmental Science at The University of Auckland in 2009 enrolled in geography courses. Enrolments were based on: 'personal interest' (fifty two percent); 'took geography as a secondary school subject' (17 percent); 'consideration of future career options' (10 percent); 'enjoyable and interesting first year papers' (10 percent); 'achievement levels and self-perceptions of skills and aptitudes' (five percent); 'choosing a major related to other subjects they were taking' (three percent); and 'positive influence of particular individual lecturers' (three percent). The most common three reasons given for enrolling: 'personal interest', 'took geography as a secondary school subject' and 'consideration of future career options' demonstrated the fairly high visibility of geography to students entering the university at that time.

²⁶ These statistics were calculated from datasets provided on the NZ Government's Ministry of Education Education Counts website: <http://www.educationcounts.govt.nz/>.

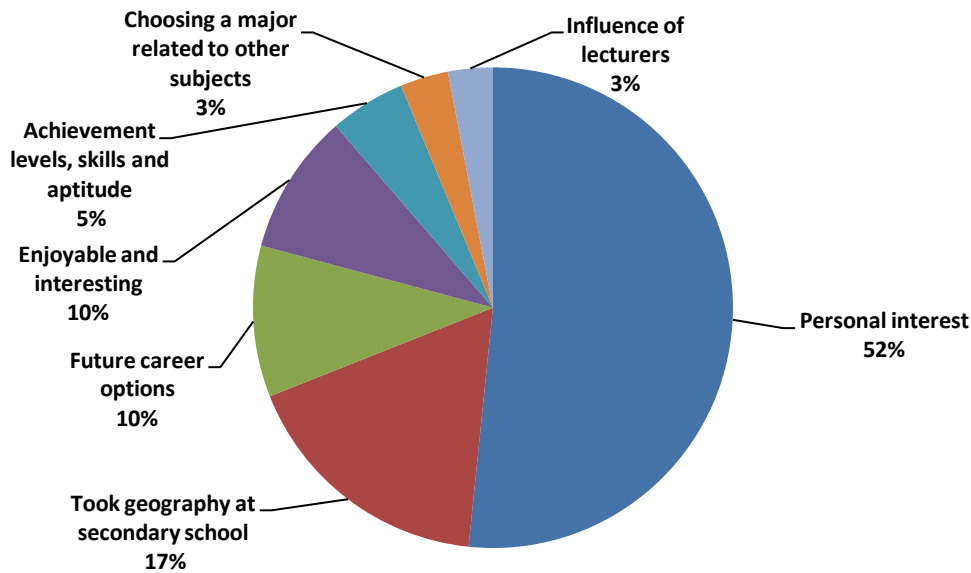


Figure 2-1: Reasons why 432 University of Auckland undergraduate (first to third year) students enrolled in geography courses in 2009

Source: Created from results of survey of undergraduate students within the School of Geography, Geology and Environmental Science, The University of Auckland, 2009.

2.3.5. Pedagogical practices in NZ geography

NZ geographers, at secondary school and university, have maintained a key interest in pedagogy (Le Heron et al., 2010). Many teaching and learning practices have been embedded with geographical concepts. Significant contributions and pedagogical reflections are evident in: the geography education contributions made to the *NZJG* and more recently the Geo-Ed section of the *NZG*; the significant contributions of NZ geographers to publications in the *JGHE*; the strong connections and high levels of participation of NZ geographers in INLT Geography projects, with academics well represented, since INLT's formation in 1999; and the relocation of the INLT Geography list-serve to the University of Canterbury in Christchurch, NZ. At November 1st 2010, 21 of 335 academics (six percent) subscribed to the INLT Geography list-serve were from NZ. While articles have appeared sporadically in the *NZJG* and the *NZG* about teaching, learning and/or researching geography at a particular university, a broad exploration of

geography as an overall academic disciplinary community in NZ had not been undertaken prior to my research.

NZ geography academics also place a strong emphasis on the effectiveness of their teaching. Several NZ geographers have won university and national excellence in teaching awards. From 2005 to 2009, five NZ geography academics were awarded NZ national tertiary teaching awards 'for sustained excellence' in teaching (Murray, 2009), a sixth in 2010 (Ako Aotearoa, 2010²⁷) and a seventh in 2011 (Ako Aotearoa, 2011). Geographers have been awarded national, university and NZGS awards for research supervision²⁸ and frequently lead or contribute to professional development courses on masterate and doctoral pedagogical practices. Several award winners commented on the co-learning between themselves as teachers and their students, together with other generative teaching and learning practices.

Upon receiving her award in 2006, Dr Juliana Mansvelt from the School of People, Environment and Planning at Massey University said, "My students are also a source of inspiration. I really enjoy learning and see teaching as a two-way process, one in which I learn from my students too...I also hope to pass on my passion for learning to the students" (Ako Aotearoa, 2008, para. 4).

When presented with his award in 2009 (Ako Aotearoa, 2009), Professor Eric Pawson from the Department of Geography at the University of Canterbury enthusiastically described his more than 30 year teaching career as "drawing out" rather than "filling up" (para. 3)...[concerned]...not with what people learn, or how much information they retain...[but]...with how they learn, how they think, how our encounter might help them to

²⁷ Ako Aotearoa is NZ's National Centre for Tertiary Teaching Excellence. The Māori term AKO acknowledges that teaching and learning are interactive components of the overall education experience. For more information regarding AKO Aotearoa visit: <http://ako.aotearoa.ac.nz>.

²⁸ Professor Richard Le Heron, primary supervisor of this thesis, received The University of Auckland's inaugural award for teaching excellence in research supervision in 2005. Professor Harvey Perkins, Lincoln University, received a NZGS President's Award for Excellence in Graduate Supervision in 2009; while Associate Professor Simon Kingham, University of Canterbury, received a NZGS President's Award for Graduate Research Supervision in Geography in 2011.

make more sense of their own world” (para. 5). He went on to say: “teaching for me is co-learning, and co-learning is an ongoing adventure” (para. 20).

Sustained Excellence in Tertiary Teaching 2011 awardee, from the School of Environment at The University of Auckland, Professor Robin Kearns’ citation (AKO Aotearoa, 2011, section four) read:

By testing learners’ supposed boundaries and probing their potential Robin challenges his learners to extend their academic pathways and careers beyond what they even imagine they can achieve...In supervising, he journeys alongside learners, resulting in a shift from being regarded as an expert, to being viewed as a colleague.

Some other key NZ geography academics concerned with pedagogy are Professors Richard Le Heron and Regina Scheyvens, Associate Professors Rachel Spronken-Smith and Lex Chalmers, and Senior Lecturers Ian Fuller, Sara Kindon and Nick Lewis.

Research, commonly through field work, has remained an important component of secondary school and university geography in NZ (Nairn, 1998a, 1998b, 1998c, 1999, 2003). Stirling (2003, 2006, 2008) reported that “(f)ield trips have been used extensively in teaching geography...a culture of fieldtrips has continued through generations of geographers” (2008, p. 70). Stirling concluded that an academic’s epistemes (systems of thought) and philosophical and theoretical approaches to the subject, which change over time, influence their approach to the development and facilitation of fieldtrips. I purport that this conclusion applies to academics’ supervision of higher degree research theses. Berg (1994) viewed fieldwork in NZ geography as providing the discipline with a ‘frontier’ character, while arguing that fieldwork has a masculine focus and creates a dominance of empirical over theoretical. Fuller (2006) viewed fieldwork as essential to a geography education and a very positive experience for students. I argue that geography, encompassing field work in and across the physical and social sciences, provides an ideal education for today’s globalising knowledge economy.

However, concern over student health and safety issues, stringent legislation, and shorter teaching blocks, has resulted in some courses incorporating virtual fieldtrips. Ian Fuller (NZ) and Derek France (UK) are presently developing virtual inter-national fieldwork

resources. Such resources will enable situated landscapes and knowledges to be introduced to students studying in other physical locations.

Academic geography in NZ has a strong history of research-led teaching that existed well before the government and universities strategically focused on the concept. Academics and postgraduate students specifically incorporated their research activities and findings into their teaching. It is interesting to consider whether such progressive and before-their-time academic geography teaching, learning and research practices, experiences and outcomes were reactive, proactive or largely unrelated to changes in government and university policies and practices in NZ.

There is a diversity of practices associated with 'thinking and doing like a geographer' in relation to teaching and learning in NZ. An individual's teaching practices are characterised by a strong degree of situatedness.

2.3.6. Situated NZ geographies

NZ geography has broadly reflected geographies throughout much of the western world. NZ geography has been connected internationally and aspires to be so, contributing to globalising research endeavours. This positioned geography well when the NZ Government (2002) launched a strategy to "drive the transformation of our tertiary sector into one that is both more strategically focused, and more connected and collaborative" (p. 1).

In response to such government strategies The University of Auckland's School of Environment (2011) maintained that:

The School of Environment is committed to excellence and innovation in research. Our staff are engaged in a wide range of original fundamental and applied research. Much of our research is of direct relevance to the community. Many of our staff are recognised internationally for their work. (para. 1)

However, as Sidaway and McGregor (2008) pointed out "Aotearoa/New Zealand geography, like geography embedded within any national framework, has distinctive characteristics" (p.2). Physically positioned on the periphery of the global map, NZ geography has developed in "the shadows... of the relative hegemony of 'Anglo-American'

themes” (Sidaway & McGregor, 2008, p.1). Berg and Kearns (1998) contested the ‘taken-for-grantedness’ of using American case studies, examples and theories for teaching geography in NZ.

NZ geographers have long been proud of, and committed to protecting, the distinctive attributes of NZ’s geographies. Kearns, Nichol, and Flaws (2005) stated as co-editors of the *NZG* that “(l)ike the Cordilyne²⁹ on our cover, the New Zealand Geographer is committed to reflecting the distinctive character of geographies in, and of, our land” (p.2).

“New Zealand geography reflects the landscapes and societies in which it works” (Sidaway & McGregor, 2008, p. 2). NZ geographers have made some substantial and noteworthy contributions to the discipline, particularly in areas of cultural geographies and physical landforms that are somewhat unique to NZ and its close pacific neighbours (Appendix A). The general tendency within the discipline has been a focus on producing geographical knowledge within fairly narrow sub-fields of geography linked to issues that are inherently relevant to NZ’s unique spaces, places, physical landforms and processes, and identities. Such knowledge has mostly been disseminated and used in fairly localised contexts. Murray and Morrison (2003) pointed out that journals like *Asia Pacific Viewpoint (APV)* provide a forum through which voices from the peripheries might, or can be heard. In an increasingly globalising world, NZ geographers have promoted localising geographies to address more global issues. With increased concerns regarding human impact on the environment, NZ geographers have considered relationships between the human and physical sciences.

In NZ, Māori geographies create an important dimension of situatedness. Stokes (1987) called for greater emphasis on Māori geographies, as opposed to Pakeha geographies of Māori, within NZ. Kearns and Panelli (2006) argued that Māori geographies can benefit all geographies, provided the former are “supported in culturally appropriate and well-resourced ways” (p. 326).

²⁹ *Cordilyne australis* is the scientific name for the native NZ tree commonly known as the ‘cabbage tree’. An image of the Cordyline is on the cover of each issue of the *NZG*.

Sidaway and McGregor (2008) noted that “the position of geography in New Zealand appears relatively strong when compared to some parts of the world” (p. 3). However, NZ geography suffers from the conflicting demands of global, domestic and regional agendas. Researchers tend to submit their best research for publication in highly ranked international journals and favour international collaborations over national or regional ones (Sidaway & McGregor, 2008). Thus academic geographers typically find themselves in some kind of global/local dichotomy, further complicated and enriched by Māori and Pacific epistemologies.

2.3.7. Persisting human-physical divides

Geography's human-physical divides are evident in NZ's six university geography departments. Academic geography teaching and research potentialities within human and physical geography and across the divide are inherent in the positioning of geography within broader faculties, colleges or schools in each university (Appendix A).

At the University of Waikato, physical and human geography have been divided across two faculties since the late 1960s. From my own experiences, within the Department of Geography at The University of Auckland in the 1990s there was an ongoing debate about whether human and physical geography constituted parts of the same discipline or were two separate disciplines.

A second year undergraduate geography course at The University of Auckland crosses the human and physical divide as a novel approach to thinking about the region. Students interact with a range of actors who purposefully wear no representational hats. Such an interdisciplinary, non-representational approach has been criticised for generating insufficient rigorous geographical knowledges (representational geographies).

2.3.8. Geography's career trajectories

Beyond the academy, where there is no professional practice of 'geographers', the contributions and identity of geography and geographers in NZ (both academic and non-academic) are often fairly invisible or confused with popular notions of geography.

Anecdotal evidence shows that geography graduates work in a diversity of fields. Such an identity crisis is a symptom of geography across the globe.

There is limited evidence, especially in NZ that comprehensive records are kept of the subsequent global career and learning paths of graduates, particularly across different disciplines and distinguishing between undergraduate and postgraduate. It is challenging to keep track of graduates from a discipline such as geography because they do not tend to be employed as 'geographers' doing 'geography'.

Research has persisted as an important component of the geography curriculum. There has also continued to be a notable focus on interdisciplinary work. Geography traditionally contributed to the 'intermediate' years for a number of professional disciplines. A number of geography PhD graduates have also gone on to take up academic posts within other disciplines, such as property, planning, management and employment relations, and tourism.

2.3.9. Postgraduate geography education

In NZ, as across much of the globe, research and research training are high on both nation-state and university agenda. From my position as a cross disciplinary educator, I argue that academic geography, encompassing field work in the physical and social sciences, is ideal to train postgraduate researchers, given today's globalising knowledge economy and the challenges of a wide range of planetary pressures. Le Heron et al. (2010) claimed when speaking of the geography PhD programmes in NZ that, "(i)t is apparent that what has been produced is a PhD process that enables New Zealand geography to enter into international competition for doctoral students" (p. 5).

Despite their peripheral physical location on the edge of the world, NZ geographers are very connected, active and well recognised internationally and have a prominent engagement with international literature. As Le Heron et al. (2010) stated, "New Zealand geographers are regular and often prolific contributors in major international geographic journals. The country hosts two Wiley-Blackwell journals (*APV*, *NZG*) and the NZGS has hosted one Regional IGU conference (1974) and co-hosted another with the IAG (2006).

Further, a number of its geographers are current or recent Chairs of IGU Commissions, some of which have held New Zealand-based meetings. Staff and PhD students are dedicated attendees of large geography conferences such as the meetings of the Association of American Geographers and the Institute of British Geographers” (p. 1). Thus, contemporary geography masters and PhD experiences in the NZ context are situated within “New Zealand geography[‘s]...longstanding connections into international geography and...[participation]...in globalising geography and globalising higher education (Le Heron and Lewis, 2007)” (Le Heron et al., 2010, p. 1).

Anecdotal evidence from my own experiences, a critical review of literature on research work, and an analysis of scholarship of NZ geographers attest to a strong interest in pedagogy – a focus on *how* knowledge is learned as well as on the content of *what* knowledge is learned. Over time, NZ geography and geographers have made noteworthy and significant contributions to changing beliefs about knowledge production and about *how* knowledge is produced, and concerned with emerging spaces in which knowledge production enterprises operate at local, regional, national or global scales.

Postgraduate geography students and their research activities, albeit predominantly at the masterate level until 2000 (Le Heron et al., 2010), have historically retained a strong prominence in NZ academic geography activities. This was both during and after the time of study, and within and beyond the academic departments, with strong links among universities, local, regional and national government departments, Crown Research Institutes (CRIs), and private consultancies. Completion and pass rates, in proportion to those who started either masters or PhD research, continue to be high, and students have accessed employment across a broad range of fields in commerce, education, science, environmental and resource management, policy and planning and geographic information science. As an example, The University of Auckland’s (2011) *Geography Postgraduate Handbook*³⁰ (p. 7) stated:

³⁰ A postgraduate handbook is produced each academic year.

Today's workplace demands a trained, disciplined and flexible mind. The study of Geography gives this, together with two of the most highly prized skills: the abilities to integrate information on the human and biophysical environment to construct a holistic perspective on a rapidly changing world and to communicate information relating to a diverse community.

A Geography degree is more than a passport to a wide range of careers; it gives graduates an edge in their careers. Many of our graduates use their training directly in the workplace, while others find that the broad education and flexible skills developed in Geography are in high demand in the job market. Geographers can be found working in a wide range of occupations in an equally wide range of organisations.

Over the past two decades, it seems that fairly 'tight-knit' communities were created and operated at departmental levels, particularly among students working on similar or related topics, in most cases with a common supervisor.

Prior to my research, comprehensive investigations of postgraduate geography research in NZ was limited to Kench et al.'s (2008) exploration of coastal research. These authors reported that from 1967 to 2007, 410 masters and PhD theses were completed in coastal related topics in NZ. To me as a geographer, the process of mapping research and other academic activities is necessary and essential to understand effective practices for training future researchers and achieve ongoing competitive advantage in recruiting and preparing students. In a relatively small country such as NZ with only eight universities, the prospect of being able to map the entire postgraduate geography knowledge production enterprise was definitely feasible. Very little was known about the extent or the nature of postgraduate geography in NZ. No comprehensive investigation of academic geographic knowledge production in NZ had been undertaken.

At the time of collecting empirical data on thesis completions for this research, the University of Otago's Department of Geography was the only geography department in NZ maintaining a comprehensive and annually updated list of all its completed masters and PhD theses³¹. Le Heron et al. (2010) described the limited activities across NZ, where "thesis findings were rarely disseminated through publication. No collation of thesis

³¹ Since my initial visit to the Department of Geography at The University of Canterbury, that department has created a comprehensive database of its completed masters and PhD theses, available on its website: <http://www.geog.canterbury.ac.nz/research/past.shtml>.

abstracts took place. The only systematic record was the annual register of proposed geography thesis topics that ran from 1991 until 2002” (p. 2). There were also annual lists of completed theses in the *NZG* until 1990. From 1991 Eric Pawson from the Department of Geography at the University of Canterbury maintained a list of all research in progress and theses completed by university and degree. The only dissemination of postgraduate research may occasionally have happened through attendance at national and international conferences, and eventual publication. Many supervisors retained records of their current and former postgraduate students on their personal web-pages. Since 2000 most geography department websites maintained an up-to-date record of all masters and PhD research being undertaken, and provided recent examples of completed masters and PhD research.

There has been very limited interaction among geography postgraduate students enrolled at different universities in NZ, reflecting the limited networking and collaboration that occurred among geography academics. It is reported that one outcome of the competitive Performance Based Research Fund (PBRF) agenda has been to encourage academics to favour international over local collaborations (Sidaway & McGregor, 2008)³². However, there have been ambiguities over joint NZGS and IAG meetings and special sessions in other meetings, which have a distinctly NZ flavour. This thesis may be one of very few exceptions, where the topic required the postgraduate researcher to have substantial contact with academic staff or postgraduate students in other NZ geography departments.

NZ government funding for the BRCSS experiment from 2003 exemplified the focus on ‘maturing’ social science in NZ (including geography) through research capability building (Le Heron, E. et al, 2011). The network’s management group included two prominent NZ geography academics who were significant in the network’s formation, and several other academic geographers engaged in research projects sponsored by the network (Le Heron, 2005). The work of BRCSS’s ‘sustainability’ theme, one of the network’s five key themes, became to perform “ new research practices into existence to reconceptualise and theorise

³² The PBRF was initiated by the NZ government in 2002 as a mechanism to provide public funding to higher education institutions based on quality and quantity measures of research performance. The PBRF is discussed further in sections 3.3.2 and 3.3.3.

research capability” (Le Heron, E. et al., 2011). Based on its success, the BRCSS network was extended into BRCSS II for 2010, co-directed by two geographers.

Since 2003, BRCSS funded: up to 20 masterate thesis awards per annum; post-graduate research awards to encourage social science research with Māori, Pacific or New Settler communities; and up to 13 doctoral completion awards, to a maximum of NZ\$10,000 dollars funding for the final six months to completion (Table 2-2). The BRCSS network funded several honours, diploma and masterate students to travel to the NZGS conference in 2008 (Mitchell, 2008).

Table 2-2: Number and percentage of BRCSS postgraduate and research grant awards for geography, 2004 - 2009

BRCSS postgraduate award	Total number of awards	Number (and percentage) of geography awards
Masterate thesis award	59	16 (27.1%)
Doctoral completion award	38	6 (15.8%)
Post-doctoral awards	4	1 (25%)
Research grants	69	13 (18.8%)

Source: Based on data collated by Erena Le Heron in 2010 for Le Heron, E. et al. (2011).

Since 2004, executive members of the NZGS have explicitly signalled that postgraduate students are an important part of the society and that their activities are relevant to the study of NZ geography. In 2005, the society introduced annual awards for the ‘*Best Masterate Thesis in Geography*’ and ‘*Best Doctoral Thesis in Geography*’. However, until 2010 these awards attracted only a small number of nominations: four doctoral and two masterate. Thus all nominations received awards with no awards made in some years. Four of the six recipients were from The University of Auckland, one from Massey University, and one from the University of Canterbury. The NZGS also grants an annual award for Graduate Research Supervision in Geography.

At the NZGS conference in 2008, space was allocated for a workshop for postgraduate students, which academics were invited to attend. Over 30 postgraduate students and staff attended (Mitchell, 2008), despite the session being held on a wet and cold evening. The

workshop was intended to be the first in a number of initiatives aimed at increasing the visibility of geography's postgraduate community in NZ.

The main purpose was to identify pertinent issues and ideas. Those suggested included social functions, postgraduate inductions, postgraduate workshops incorporated into future NZGS conference programmes, a national postgraduate network for geography students, a postgraduate section on the NZGS website, and seminars and discussion forums run through the BRCSS Network Access Grid.

Although the session was facilitated by postgraduate students from Auckland, there was a conscious effort to listen to voices from other universities, given that Auckland is the largest department. There were comments made by students from some departments, regarding a need to strengthen relations among postgraduate students within their own departments before contributing to a national network.

As the 2010 conference was a joint NZGS and IAG event, the postgraduate workshop was facilitated by one PhD student from the University of Canterbury (NZ) and another from the University of Newcastle (Australia). Seventy postgraduate students attended. The workshop was concerned with thesis writing, comprising a panel of four geography academics, two of whom had recently completed PhDs. The other two were experienced academics who talked about getting published from an author's and an editor's point of view respectively. A short meeting of postgraduate students with the NZGS president and other representatives was convened at the conclusion of the workshop to discuss postgraduate involvement in the NZGS. It was agreed that postgraduate students would have a section on the Society's website, including a discussion forum, and that one postgraduate representative from each geography department would be present at the Society's council meetings.

2.4. Moving from 'core-periphery' to 'localising-globalising' geographies

Explicit and implicit core-periphery framings have undoubtedly had important meanings in relation to the production and dissemination of geography knowledge within a globalising

knowledge economy. As already alluded to in this chapter, in geography, as in many disciplines, it has been common for voices from the peripheries to be published in journals controlled by the core.

After reviewing the international and NZ geography literature I believe that core-peripheral models of international geography are outdated serving to decrease the visibility of NZ geography in terms of its contributions to globalising knowledge economies. I agree that *there are distinctive characteristics of geography in a given nation – localising geographies*, that should be valued, but these *distinctions are irrespective of whether that nation is at the core or periphery of global geography*. Furthermore, *both 'core' and 'peripheral' countries experience many similarities in the issues impacting on the geography performed there*. Framing academic geography in core-periphery terms seems particularly unhelpful in today's globalising knowledge economy, where many localising geographical perspectives are increasingly focused on globalising issues. I propose that geographers should consider how 'localising geographical knowledges' make and might make valuable contributions to globalising geographies within globalising knowledge economies.

2.5. Summary and moving forward

This chapter has critiqued 'international' geography to illuminate its internal strengths and weaknesses as well as external opportunities and threats for the discipline. This discussion is initially based on geography practices at 'the core' because most relevant and frequently cited literature has come from geography's global core, predominantly the US and UK. This chapter has argued for the need to enrol further participation from different nations – increase the visibility of localising geographies - by repairing the traditional situation where many of the highest ranking 'international' geography journals and 'international' geography conferences and workshops have been dominated by participation from 'the core'. To make the national and international significance of NZ geography more visible, I have highlighted three of its strengths: distinctive characteristics; strong international connectedness; and significant contributions to academic and broader political agenda. I conclude that the visibility of geography's significant contributions to globalising

knowledge economies would be enhanced by *shifting the focus from core-periphery to generating localising-globalising geographies*.

I present localising-globalising geographies as an enabling framing. This is a first step in gradually centring and focusing on the geographer's body and being individually and collectively able to experiment; do new practices; and make new relevance.

Two gaps in the geography literature provide a niche for this thesis. One is that academic geography needs to better understand its own distinctive practices to maximise its strengths and opportunities and counter potential weaknesses and threats. The other is that limited work has explored postgraduate geography research, especially in NZ.

Studies of geography's disciplinary research work, how research is performed within the discipline and in collaborations with other disciplines, are few to date. Geography's international intellectual trajectory is research as a distinctive, valuable, legitimate and identity-forming feature of the discipline. Thus, the scrutiny of *geography research as a body of practices should be an integral dimension of disciplinary endeavour*. This thesis addresses some of this gap in the scholarship.

Chapter three provides the background and context for my research in terms of the higher education landscape in NZ in general, and postgraduate geography research specifically. I outline and critique relevant academic literature, policy documents and resource materials. My academic worlds converge as I bring the discipline of geography and field of higher education together.

Chapter 3. Constituting geographical research trajectories in NZ universities: contextual, contingent and capability dimensions

The reform of New Zealand's tertiary education sector provides an important site for studying the trajectory of those processes that we have come to associate with neoliberalization. During the 1980s, New Zealand earned the dubious accolade of having been the prototype for the development of many of the free-market ideals and practices of neoliberalism. The neo-liberal experiment in New Zealand was one of the most ambitious attempts at constructing the free market as a social institution to be implemented anywhere this century (quote from Shore, 2007, p. 1 based on Gray, 1999).

...the 'New Zealand Experiment' was hailed by the World Bank, the Economist, and the Organization for Economic Co-operation and Development (OECD) as an example for the rest of the world to follow (Kelsey, 1997: 62). As historian Jamie Belich (2001: 412) summed it up, the 'notorious shortage of checks and balances' in New Zealand's political system meant that what for the rest of the world was a 'fad', in NZ became a 'fetish' (Shore, 2007, p. 1).

In this context:

New Zealand geography also benefits from lively student interest.... [which]... combined with government funding structures, has contributed to a strong commitment to teaching and well-defined departmental identities, despite (or perhaps as a reaction to?) the ways that neoliberalism has impacted on wider academic 'landscapes' (Berg & Roche, 1997) in New Zealand. (Sidaway & McGregor, 2008, p. 2)

3.1. Introduction

Shore (2007), above, highlights how seismic shifts, associated with radical neo-liberal reforms, reshaped NZ's higher education landscape. Shockwaves initiated by governments' strategic moves to compete in a globalising knowledge economy rattled universities, the homes of geography.

This chapter brings the worlds of geography and higher education together to realise new capability building potentialities. There has been an emerging body of work concerned with the links between geography and higher education reforms, such as that by Larner and Le Heron (2002a, 2002b). Sidaway and McGregor (2008), in the third opening quote to this

chapter, described the impact of such reform on NZ geography. *NZ geography practices have more than reflected the aftermath of neo-liberal reform of NZ's higher education landscape: they have also preceded, actively engaged with and researched/ critiqued these reforms.* Specifically I discuss how changes to the tertiary education system in NZ prompted responses (both initiatives and reactions) in universities and geography departments. The chapter frames geographic research in the larger body of NZ education, contextualising the trends and developments discussed in later chapters.

This chapter also addresses important relationships between localising-globalising geography and globalising higher education from a NZ context, considering new possibilities in the relationships between geography and globalising higher education. The two are complexly intertwined: geography is part of higher education, and a sometimes critical voice. I use work carried out at the national scale by academics situated within NZ, particularly that by Larner and Le Heron (2005) and Le Heron and Lewis (2007) to situate global influences. To substantiate my claim, I scope central government political and funding models and the reactions within university contextual frameworks in which emergent spaces and practices of postgraduate geography knowledge production have been situated and performed.

I limit my discussion to six NZ universities and how changes in these have influenced the development of academic geography at each university. I focus on postgraduate education, making specific reference to strategies, policies and practices, within each university, relevant to postgraduate geography. Finally I return the discussion to the central research questions.

As Lewis (2004) pointed out, NZ's neoliberal reforms necessarily became the context for much human geography research:

Critiques of the New Zealand political reforms have been the mainstay of New Zealand social science over the last fifteen years. Indeed, in a curious twist imparted partially by reformist efforts to prevent provider capture, academics have been assigned a statutory responsibility to do just this as servants of their universities (Boston, 1999). New Zealand geographers have had little choice but to

examine this defining programme of social, political, cultural and economic change and to contextualise their work in these terms. (p. 161)

Of the considerable literature on globalising higher education, little brings together geography and globalising higher education. This chapter discusses how higher education has changed, the effects of this, and how geography has been caught up in such changes. In subsequent chapters, these changes are revisited to examine if, and how these changes have been picked up by both supervisors and postgraduate students as they reoriented their practices.

3.2. NZ universities: homes of academic geography

NZ universities are heavily regulated and protected by government, with no private universities. Until 1961 there was only one university in NZ, the University of NZ, with constituent colleges in main NZ cities. Today the colleges are five independent universities, and three additional universities have emerged: NZ has only eight universities. There is no distinction between ‘teaching’ and ‘research’ universities as in the US; or between ‘pre-’ and ‘post-’ 1992 universities as in the UK.

Traditionally NZ universities had a high degree of academic freedom and autonomy and were predominantly self-governing (Delanty, 2002). Tuition fees paid by students were nominal, with education being almost fully funded by public money. A change in the 1990s meant students became fee paying. The Education Act of 1989 (New Zealand Government, 1989) was implemented to safeguard the role and mandate of universities when society, but not yet education was neo-liberalised. Through this Act universities maintained and enhanced their academic freedom and autonomy. Academics were empowered by this Act to be the ‘critics and conscience’ of society (Hattie, 2010).

3.2.1. Origins of postgraduate education in NZ

From 1870, the University of NZ provided postgraduate qualifications in Arts at bachelor, honours and masterate levels, based on coursework examinations, with no research component. With no doctoral level qualifications in NZ, excellent students were encouraged to take up Masters of Literature or doctoral studies at British universities, such

as Cambridge, Oxford or the Imperial College of Science and Technology in London (Barrowman, 1999; Sinclair, 1983). By the 1890s the University of NZ offered postgraduate travelling scholarships to enable and encourage study abroad (Middleton, 2001).

The PhD was introduced by the University of NZ in 1922, but discontinued in 1926 due to difficulties with awarding PhDs across disciplines, establishing a uniform standard, and full-time study requirements. As an alternative, published works could be submitted for a local Doctor of Science or Doctor of Literature degree. In 1945 the University of NZ re-established the PhD (Middleton, 2001), which continues today.

The first masterate research theses emerged in NZ in the late 1920s. Completion rates were low as undertaking a thesis was not an option in some disciplines and optional in others (Barrowman, 1999). A decline in thesis numbers was evident in the period of the Second World War, followed by a dramatic post-war increase. For a more in-depth discussion of the history of postgraduate education in NZ refer to Melrose (2003).

3.2.2. History of academic research in NZ

Until the 1940s, academic roles in NZ comprised heavy teaching loads, with no research component. Academics focused on transmitting set knowledges to students, rather than on producing knowledge. Library resources were limited (Middleton, 2001).

By the 1940s the University of NZ encouraged local research. A team of Canterbury lecturers produced a paper titled ‘Research and the University’ in 1945. This work proposed that a university should conduct research in addition to teaching, and that research and teaching endeavours should interact (Sinclair, 1983).

In 1946, a collaboration of Wellington lecturers wrote “(a)ll true education merges into research and active research is a vital part of the university” (Submission to Senate, as cited by Barrowman, 1999, p. 69). That year, the University of NZ received a government grant to establish a research committee. Later, funds were provided by the Carnegie Corporation

of New York for NZ universities to undertake research concerning Māori people³³, Samoa³⁴ and other social research (Sinclair, 1983). The NZ Council for Educational Research was also established.

By 1947, every academic within the Department of Engineering at Auckland University College was expected to engage in research, despite heavy teaching loads, inadequate library resources and poor laboratory facilities (Bassett, 1969). In 1950, the first purely research-based academic position was created at Auckland University College (and in NZ) (Sinclair, 1983). Parton (1979) remarked that:

The introduction of research fellowships played a major part in the great expansion of research activity from about 1948 onward [in New Zealand]. The [re]introduction of the PhD degree at which most research fellows aimed, was justified in terms of research carried out far more than by degrees awarded. (p. 186)

Following the Second World War, British, European and US universities invested heavily in research, particularly scientific research (Middleton, 2001). By the mid to late 1940s research practices were incorporated into the daily activities of NZ universities, resulting in a dramatic increase in research projects and publications. Research has often been perceived as the most prestigious and elitist aspect of the academic role. This perception has been reinforced by the introduction of the PBRF in May 2002, which reviewed the six year period from 1 January 1997 to 31 December 2002 (Tertiary Education Commission, 2004).

3.3. Nation-state reforms and beyond: Shaking and (re)shaping geography's terra firma?

Before 1984, NZ was a welfare state. The 1980s saw a rise of neo-liberalism and worldwide economic restructuring that commenced in NZ in 1984. NZ's neo-liberal reforms were evocatively termed 'the NZ experiment' (Kelsey, 1995): a social laboratory

³³ The Māori people are the indigenous people of NZ. One unique local feature in NZ is that governments and universities alike have the added consideration of their obligations to the Māori people under the Treaty of Waitangi (ToW), a partnership signed by the Māori people and the Crown in 1840.

³⁴ Samoa is one of NZ's neighbouring Pacific Island nations.

that dispels the myth that “neo-liberalism is a hegemonic and homogeneous regime” (Le Heron, 2007, p. 28). “New Zealand’s institutional and constitutional ‘thinness’, small size, isolation and political-economic transparency make it both an ideal site for political experimentation (Mulgan, 1989) and an effective laboratory for studying social change (Nagel, 1998)” (Lewis, 2004, p. 161). There were three phases of neo-liberal reform within NZ. The first phase was market liberalisation/ corporatisation/ privatisation from 1984 to 1989. The second was core state reform: new public managerialism from 1989 to 1996. The third was neo-conservative entrenchment from 1996 to 2007 (Shore, 2007). An after-neoliberal phase followed (Lewis, 2009). I discuss the nation state and university scenes as they evolved through the 1990s in the aftermath of the late 1980s neo-liberal educational reforms. Next I outline the contemporary developments since the start of the 21st Century. In the subsequent chapters of this thesis I demonstrate how, both directly and indirectly, such contextual changes shaped the landscape of postgraduate geography research practices since 1993; and outline the nature of potential issues and conflicting agendas that have arisen.

3.3.1. Initial neo-liberal shockwave: universities spared

From 1984, NZ was transformed by one of the most radical and far-reaching neo-liberal economic and social reforms in the western world. These reforms had significant effects on the country’s social, economic and political fabric (Bertram, 2003). NZ universities were largely untouched by the initial phase of reforms, remaining largely ‘self-governing’ throughout the 1980s (Shore, 2007).

3.3.2. Neoliberal forces invade universities

NZ’s higher education reforms since 1989 were similar to those experienced in other nations, but NZ was slower to implement these. With marked impacts on universities, these reforms changed the contexts in which academic knowledges were produced within NZ. As the academy was a prominent site of geographic knowledges, changes in higher education contexts were likely to have significant impacts on what and how geographic knowledges

were produced. Development of geography, and postgraduate education in NZ, depended on the evolution of NZ's universities.

Since the late 1980s the government made strategic, political moves to ensure a uniqueness and competitive advantage for NZ within the globalising knowledge economy, focused on the knowledge production and human/social capital. The globalising knowledge economy since the late 1980s led to a significant increase in university participation in NZ.

The NZ university system has undergone significant modification in response to strategic policies implemented by government. NZ's neo-liberal social and economic policy reforms since the late 1980s, which mirrored those evident throughout many other western nations, have had a number of significant impacts on the role and characteristics of NZ universities (Alcorn, 2002; Gould, 1999; Larner & Le Heron, 2003; Peters, 2002a, 2002b, 2002c; Shore, 2007), and therefore on geography research practices.

Berg and Roche (1997) described how such neo-liberal reforms have impacted on NZ's academic landscape, including geography departments. From the early 1990s there was a significant reduction in government funding, as universities were largely left to operate as market- or profit-driven businesses. Limited government funding depended on EFTS enrolled, as well as the research and teaching performance of academics. Tuition fees for students were introduced in 1990. Fees rose from a flat rate of approximately ten percent of the total course costs in the first year, to approximately 20 percent of the total cost in 1991.

The Todd Report (Ministerial Consultative Group, 1994) supported having tertiary education as a private investment, consistent with human capital theory (Peters & Roberts, 1998), so universities became largely market driven. Universities became 'producers' of knowledge where the knowledge and skills generated had to match 'consumers'' demands. Students and employers became user-pays 'consumers' and what they demanded was strongly influenced by the demands of the local society and economy. Universities were free to determine the level of their tuition fees. The government introduced financial support systems for students in the form of allowance and loan schemes. There was a move away from academic (pure or 'blue-skies') and disciplinary research to the production of

applied and interdisciplinary knowledge. Many universities became research-led and prioritised research training to compete for external research opportunities and funding, to ensure competitive income-generating streams.

With ever-increasing direct costs and opportunity costs of obtaining knowledge and skills, ‘consumers’ became demanding in terms of perceived relative quality and value of the products and services offered at different universities. This created competition among universities to attract students (Varnham, 2001). Thus, universities became more accountable than ever before (Varnham, 2011) and responsive to students’ needs (Tertiary Education Advisory Commission, 2001a, 2001b).

Universities engaged in extensive advertising campaigns to attract and retain domestic and full fee-paying international students to increase ‘bums on seats’ and thus revenue: leading to ‘massification’ whereby university education became largely available to all and subsequently student enrolments increased nationally (Tertiary Education Advisory Commission, 2001a, 2001b). NZ universities became extremely prominent in the global marketplace, forming strategic alliances and mergers with other universities both nationally and globally to maintain economic viability. Universities began producing graduates for the global, rather than local or national, marketplace.

Since the early 1990s, NZ’s universities became increasingly concerned with their national and global rankings as a benchmark of performance. From 2002 the PBRF was the predominant research ranking mechanism in NZ. Several annual global rankings of universities, each based on different criteria, exist. These include the Times Higher Education’s World University Rankings and the Academic Ranking of World Universities (ARWU), commonly known as the Shanghai Jao Tong University’s ranking of world universities. As an example, The University of Auckland has been benchmarked against the Universitas 21 universities (of which it is a member) and Australia’s ‘Group of Eight’ or ‘Sandstone’ universities.

In the 1990s postgraduate education in NZ was characterised by some distinctive features. Most masters degrees were of two years duration. Masters and PhD degrees had strong

disciplinary majors. PhDs were predominantly gained for an academic career. The majority of students wishing to complete a PhD travelled abroad to do so. Thus, few NZ academics gained PhD supervision or examination experience in their NZ positions. There was an oral defence requirement for the successful completion of all NZ PhDs and some masterate theses. There was limited development of research topic specialisms by academics. Restricted international connectedness limited literature and methodological trajectories.

3.3.3. Universities leading ‘economic transformations’: geography’s frontier enterprises

Globalising, neoliberalising, and other drives to create knowledge economies and social capital significantly reshaped NZ’s university landscape. The environment is very market-driven: characterised by increasing tuition fees, competition, and open-entry. Open-entrance was a historical characteristic of NZ universities. The latest wave of reforms reassessed this.

Neo-liberal processes in NZ have re-set the higher education framework altering the place and importance of research, disciplines, and interdisciplinarity in universities. Since 2002 the PBRF’s allocation of funding to universities based on an evaluation of academic research has been a predominant driver of university research activities: how research was understood and performed. Universities did not have a model for how to incorporate neoliberal processes. Rather, developments were inspired by neo-liberal ideas. Geography and geography research students have been caught up in direct and sometimes subtle changes.

While government funding formulas were increasingly based on research output, political calls were for life-long learning, co-learning, communication across disciplines, and community engagement. Consequently, there were conflicting pressures on universities, departments and supervisors to maximise quantity, and minimise completion time, while ensuring quality learning and knowledge production, of postgraduate research.

From 2000 to 2008 there was an almost 32 percent increase (from 4458 to 5870) in EFTS doctoral enrolments in NZ³⁵. The increase in postgraduate student numbers has not been matched by a proportionate increase in supervisors. Therefore academics face heavy supervision loads and there are significant supervision imbalances (Sampson & Comer, 2010).

In research-led universities the focus for promotion and tenure tends to be on research outputs. On the one hand there is an argument for the maintenance and enhancement of knowledge (scholarship) through the interdependence of teaching and research. On the other, teaching and research are separately funded (Malcolm & Tarling, 2007).

Universities received a substantially larger amount of per capita government funding for postgraduate research students than for undergraduates or taught-course postgraduates. Twenty-five percent of the PBRF has been dependent on masterate and doctoral research completions. This saw a strategic drive by many universities to increase postgraduate student numbers and to have postgraduate students complete their research in a timelier manner, sometimes through the provision of financial incentives. For instance, The University of Auckland offered a substantial financial incentive to doctoral students who submitted their thesis within four years, and passed. This ‘completion award’ was discontinued in 2011, as it did not significantly reduce completion times.

In the early 2000s, the government focused on ensuring a competitive advantage for NZ within the globalising knowledge economy. The first Minister of Tertiary Education was appointed in NZ in 2002. In 2003 the NZ Government formed the Tertiary Education Commission (TEC). The government steered academics into collaborative research across disciplines, among NZ universities, between universities and Crown Research Institutes (CRIs) (for example, the Ministry of Fisheries), via partnerships with overseas universities, and through international research projects. Additionally, the government nominated and funded several National Centres of Research Excellence (CoREs)³⁶, located within

³⁵ These statistics were calculated from datasets provided on the NZ Government’s Ministry of Education Education Counts website: <http://www.educationcounts.govt.nz/>.

³⁶ For more information on National Centres of Research Excellence (CoREs) visit: <http://www.tec.govt.nz/Funding/Fund-finder/CoREs/>.

particular universities, or CRIs or clusters of these. Several NZ universities also established regional or local research centres or institutes, sometimes in partnership with an industry or professional body.

Research and postgraduate studies are closely intertwined activities. Postgraduate study is vital preparation for many of those who will be directly engaged in realising the country's economic transformation. The completion of research-based postgraduate qualifications will continue to be of importance to the nation.

Attracting and retaining high quality researchers has been essential to grow NZ's intellectual capital (Hodgson, 2008). NZ attracted high achieving international research students through the 'domestic status for new international PhD students initiative' (introduced in April 2005), and the NZ International Doctoral Research Scholarships Programme (NZIDRS). These initiatives also enabled NZ to build international research partnerships and encourage skilled people to remain in NZ after graduation (Ministry of Research, Science and Technology [MoRST], 2007).

In 2002 the TEC introduced the PBRF as the predominant means by which the government would assess research quality and output, and thus how NZ universities would receive funding for academic research endeavours³⁷. The primary aim of the PBRF is to promote and financially reward excellence in research. Thus, the amount of funding received by each NZ university depended on three performance measures: the research performance, the number of masters and PhDs supervised to completion (with doctorates attracting greater funding than masterates), and external research income of each researcher employed in each institution. The first PBRF assessment occurred in 2002, the second in 2006, with the third scheduled for 2012. Geography scored highly in both the 2002 and 2006 PBRF assessments (Pawson, 2006).

In NZ doctoral studies have incurred tuition fees. In 2006 a NZ government policy waived international tuition fees for international PhD students: they only paid domestic fees. A

³⁷ This is a similar funding model to the Research Assessment Exercise in the UK.

work visa was provided for the student's partner/ spouse and domestic status for any school age children. This policy was discontinued in 2009 and re-introduced in 2011.

The 2000s saw increasing postgraduate student numbers, both domestic and international, due to qualification inflation. The last decade has also been characterised by more direct pathways to the PhD, through the introduction of Bachelor (honours) programmes. Master degrees have been reduced to one-year, following completion of a postgraduate diploma or honours year. There has been renewed interest in taught-course masters, for supporting professions and generating revenue. Postgraduate tuition fees continued to rise, but were countered to some extent by increases in scholarships for those who were the recipients of such stipends.

The government and each university channelled more funding, resources and support toward postgraduate programmes, including research education, leading to increased accountability through progress reporting. Universities developed centralised doctoral and masters administrative support, graduate schools, deans of graduate studies positions, boards of graduate studies and official support programmes provided by librarians, careers advisors, learning and research advisors, and the like.

University departments have been amalgamated and renamed, and degrees restructured and re-titled to reflect research funding trends. There has been a blurring of disciplinary boundaries, resulting in more inter- and trans-disciplinary research.

Various government initiatives aimed to increase research capacity and capability. Initiatives included National CoREs, the BRCSS access grid and scholarships designed to build research capability and capacity within the social sciences, the Building Research Capability in Strategically Relevant Areas and the Bright Future Scheme for postgraduate students, which comprises Enterprise Scholarships and Top Achiever Doctoral Scholarships.

In the first decade of the 21st century postgraduate education in NZ became research training for the globalising knowledge economy. Postgraduate education was characterised by a focus on strong global connectedness and contributions. There has been a focus on not

only knowing what, but also knowing how: transferable skills development. The PBRF mechanism directed NZ universities toward globalising higher education.

The PBRF has promoted publication during the thesis process. In some quarters the PBRF has resulted in an increase in co-authorship (co-ownership of knowledge) of publications between students and their supervisors, as supervisors want their contributions to be explicit in their research portfolios (Curtis, 2007).

The government and each university engaged in strategic drives to attract postgraduate students. These include providing funding in the form of more domestic scholarships, TEC Bright Futures scholarships, research accounts for each student, completion awards, and domestic status for international doctoral students.

3.3.4. University qualifications: Smooth paths, detours or road blocks to postgraduate research education?

In NZ, students studying a non-professional subject such as geography as an undergraduate undertake a major in that subject rather than an entire degree. An undergraduate education at NZ universities now often includes a general education component where students have to complete some courses in another faculty. Then, a NZ master degree is conferred after the equivalent of five years full-time university study. Two of the five years must comprise postgraduate study. In the very early 2000s the Committee on University Academic Programmes (CUAP) changed the regulations for the NZ master degree so that there were two types of master degree. The master by coursework, which could include a short research project, equates in value to 1.5 EFTS. Thus, the second year comprises additional taught courses and a shorter research based dissertation. The master by research, of which the second half is a research thesis, equates to two EFTS. The 1.5 EFTS option makes it possible to complete a coursework master in one calendar year. This aligned NZ master degrees with those awarded in Australia, UK, Canada and the US.

It is common for a master degree to comprise a single additional year of study after the successful completion of a fourth-year bachelor honours or a one-year postgraduate diploma. Therefore, the master degree in NZ is typically half or less research-based, and is

not often considered to be a research training degree. Students who wish to progress to a doctorate from either a master degree or an honours year in an undergraduate degree need to have completed a substantial research project and achieved at least second class, first division honours (or equivalent) in their assessment or examination. With a focus on research training, most if not all of the NZ universities are putting systems in place to fast-track the most competent students from an honours course directly into a PhD programme (Le Heron, et al., forthcoming). In the remainder of this thesis I focus on master and PhD degrees where a research-based thesis contributed to at least half of the degree. This is because I am concerned with postgraduate knowledge production through research endeavours that are mostly classified into the PBRF.

In NZ the PhD is the research training degree. NZ PhDs are based on the UK model and similar to those in Australia as they do not usually comprise any coursework components (unlike PhDs in continental Europe and the US): PhDs are awarded fully on a research-based thesis. More recent professional or named doctorates comprised both coursework and research. Thesis by publication has not been common in NZ; however, the inclusion of publications within a PhD was often permitted. From 2011 The University of Auckland has allowed the submission of theses with publication.

Each university has policies and statutes to strictly govern the PhD process. PhD projects are supervised by at least two supervisors, and often by a larger team. Typically at least one supervisor has to come from within the university. The second supervisor can be located in another university or outside of the academy, on the proviso that he/she has the relevant qualifications or experience to supervise the research project. It is common for PhD projects to be situated within broader academic research collaborations. PhD degrees in NZ are a degree of the university, unlike undergraduate and master degrees that tend to be a degree of a faculty. PhD degrees in NZ have continued to incur a tuition fee, although students commonly obtain scholarships to cover these. Calls from government, industry and universities for interdisciplinary research encourage PhD work to be undertaken across different disciplines, among different universities or across academic/ non-academic boundaries. However, such practices are often discouraged by university administrators at

the departmental or school levels, as funding distribution and resource use across political and administrative boundaries prove challenging. Also, competition among departments to attract PhD students has become more intense.

NZ PhDs are now almost entirely examined externally, by academics beyond the supervisors, immediate academic department and university, with at least one international examiner. Sometimes the principal supervisor is an additional examiner. Part of the examination for all NZ doctoral candidates is the oral defence. This occurs after the thesis has been marked and a pass is required for the degree to be awarded. The NZ oral defence is not public like those in continental Europe or the US³⁸.

3.3.5. Building innovative and creative research capability: Illuminating geography's potentialities

A recent NZ government agenda has been to build research capacity and capability. According to Le Heron, E. et al. (2011), "(c)ustomarily capacity is defined as both pointing to 'what is available and what can be grasped, given available understandings' and capability as moving into an 'in-the-making' mode, an ability to see 'translating' as ongoing and never completed work, and 'recognising and making the most of known aptitudes' " (p. 6). Twenty five percent of the PBRF formula to each university has been based on master and PhD thesis completions - exemplifying the government's focus on postgraduate education. The aim of the BRCS network (2004-2009), funded by the government through the TEC was to build research capacity and capability. The award of postgraduate scholarships was one such funding mechanism.

The literature increasingly reflected that the academy is not the only site of knowledge production, and that valuable learning takes place beyond the university. There is an increased focus on lifelong learning through and beyond university, including the value of continuing education and professional development. People are returning to tertiary studies

³⁸ In Canada and the US the viva voce may take place in either a public or private forum. In continental Europe where there is no chance of the candidate failing, family, friends and any interested faculty are welcome to attend. In NZ, as is the case in the UK, the oral defence is strictly private because there is a real chance that the candidate could still fail at this stage of the process.

after years in the workforce, credit for experiential and informal learning is given towards qualifications, and students are encouraged to collaborate with external agencies.

According to the Tertiary Education Strategy 2007-12, the New Zealand Government (2006) aimed for “a high income, knowledge-based economy, which is innovative, creative, and which provides a unique quality of life to all New Zealanders” (p.8). The strategy promoted research-led teaching and improving knowledge dissemination and application. Acknowledging the key role that NZ universities needed to play in achieving its aim, the New Zealand Government stated:

The New Zealand economy is currently based on commodity exports but as the economy changes we need to shift our focus from a reliance on commodities towards more high value and knowledge-based products. Capitalising on the intellectual resources of our tertiary education sector is critical. We need to get a better return on the research activities of our tertiary education organisations.

The linkages between the tertiary education sector, other research providers, and private business are especially important in a small country like New Zealand, as many firms are too small to engage in research and development themselves. The tertiary education sector can help by providing the expertise and knowledge to carry out this research, but it requires strong linkages at each stage of the transfer process to ensure that the full benefits from this research are captured. (p. 38)

A change of government resulted in the introduction of a new strategy: the Tertiary Education Strategy 2010-15 (New Zealand Government, 2009). The new government vision was a world-leading education system to equip all NZers with the knowledge, skills and values to be successful citizens in the 21st century: the global citizenship agenda. The government recognised the need for research to inform teaching, both in academic and applied settings, to enable the development of human, social and cultural capital. The government also sought innovation through high quality research to build on NZ’s knowledge base, respond to the economy’s needs and address environmental and social challenges. Universities were encouraged to collaborate with businesses and CRIs to ensure that research met these needs and challenges (New Zealand Government, 2009).

Academics have undertaken a significant proportion of research in NZ with universities providing nearly all research training. Postgraduate students have contributed significantly to research. Academics and postgraduates cooperate with other research organisations,

firms, iwi³⁹ and communities, to develop and apply new knowledges. The government has continued to promote the PBRF funding mechanism in enhancing research quality in universities, including that completed by research degree students.

The NZ government recognised that universities play a significant role in building international links through inward and outward flow of ideas and people. International research collaborations allow universities to draw on wider knowledge to build the country's capacity and capability. Strong international linkages were seen to improve the quality of teaching and research in universities. NZ universities connected and collaborated with overseas institutions to ensure that both students and academics benefitted from global links. The inward flow of international students boosted the incomes of NZ universities and contributed to more diverse learning environments for NZ students.

In response to the government's vision for higher education in NZ, Kennedy and Hart's editorial to a special issue of *New Zealand Geographer* (2008) described how:

New tertiary education and government research funding models are encouraging a divergence of priorities between New Zealand universities and Crown Research Institutes (CRIs) in an environment in which it is increasingly difficult for researchers from these two types of institutes to collaborate. Within universities, the Performance Based Research Fund (PBRF) emphasizes individual research efforts measured through publication in internationally recognized peer-reviewed literature. This has driven a shift in focus for academics away from contributions to policy and resource management practices. In contrast, CRIs are largely funded through the Foundation for Research Science and Technology, which encourages research outcomes aimed at regional councils and community end-users and the production of commercial products. While there is some cross-over in these funding regimes, the differences mean that the drive for blue skies research is now concentrated in the university sector while that for applied research rests with the CRIs. (pp. 91-92)

Kennedy and Hart (2008) highlighted geography “academics who value both blue-skies and applied coastal research as well as the importance of connecting these two exercises as the basis for sound coastal management” (p. 92). Kennedy and Hart argued:

geographers are well placed to contribute to the sustainable management of coastal environments given their integrated view of physical and human systems, and their

³⁹ Iwi is the largest everyday social unit in Māori culture, equating to a tribe or confederation of tribes.

focus on spatial and geomorphic perspectives and timescales that are appropriate to resource issues. These scales sit between those of other disciplines such as geologists, ecologists and engineers. The perspectives provided in this issue are from a collective of university-based geography and marine science researchers from every major tertiary coastal studies programme in the country. As such they represent a milestone for academic cooperation in New Zealand coastal studies and a major change from the individualism of past practices. (p. 91)

3.4. Tracking emergent nation-state agenda within each university

In this section I critically address some of the strategic ways that the six NZ universities housing significant postgraduate geography programmes responded to government and international pressures. Current trends suggest that an interesting mix of both proactive and reactive strategies has taken place within universities (Table 3-1).

3.4.1. Strategic drives and positionings to recruit postgraduate students

Throughout the 1990s the Auckland region, as the prominent international gateway to NZ, experienced major changes to its university landscape. Massey University, historically based in the city and predominantly rural community of Palmerston North, established a campus at Albany on Auckland's north shore. The University of Waikato and the University of Otago also based some of their activities, especially recruitment, in Auckland city.

Since 2000, competition among NZ universities to recruit and retain postgraduate students, both domestic and international, has been fierce. Representatives from all six universities made overseas visits and developed strategic partnerships with overseas universities and governments, to recruit international postgraduate students. International postgraduate students provide significant income streams for universities (Lewis, 2011).

3.4.2. National and international reputation and rankings

Research and/ or teaching reputations have become significant to NZ universities. Since the 1960s NZ's universities began to gain international reputations (Tarling, 1999). National and international rankings became important considerations for universities as they competed nationally and globally for students, staff and funding. National PBRF rankings

have been significant for government funding. The University of Auckland has promoted itself as being 'New Zealand's leading university', and throughout the first decade of the 21st century retained its status as the highest globally ranked university of NZ's eight universities. The University of Otago promoted itself as 'NZ's top-ranked university for research', while the University of Waikato prides itself on 'delivering a world class education and research portfolio'.

3.4.3. Strategic goals to enhance postgraduate completions

Most of the six universities had strategic goals, and engaged in a number of associated strategic moves, to increase their postgraduate research student numbers. The University of Auckland has a long tradition with the greatest number of master and doctoral thesis completions of any NZ university. In its 2005 to 2012 strategic plan, the university has the ambitious goal of achieving 800 masters and 500 doctoral completions per year by 2012. In 2009 the university sought to reduce undergraduate enrolments from 82 to 78 percent to increase the proportion of postgraduates from 18 to 22 percent. At the central institution scale, universities are placing far more focus on doctoral research than on masters education. This is because the doctoral degree is a university level degree while the master degree is administered by faculties.

Several universities saw a significant increase in the number of students fast-tracking to a doctoral degree. In stark opposition to the intentions of strategic plans, at the masters level there were often substantial declines in enrolments⁴⁰ as students opted alternatively to complete a year-long, course-based honours programme. If they attained sufficient grades in the dissertation component of the programme they were eligible to enrol directly in a doctorate.

⁴⁰ There was an increase in masters students in geography in the 2009 and 2010 academic years as the global economic recession led to a tightening of job markets.

3.4.4. Focus on supervision as a pedagogical practice

All six universities have a long history of providing non-compulsory training and support for supervisors. With an increased focus on postgraduate education and research training, supervisor training is now mandatory for new supervisors at all six universities⁴¹.

It is the policy of all universities for doctoral students to have at least two supervisors within some form of co-supervisory relationship. Generally one takes on a primary role while the other provides secondary support. There is a high degree of variability in how the ratio of overall responsibility is assigned between two or among more supervisors.

Although the university provides a guide for supervisors, the nature of support provided to students by supervisors is also highly variable. It is common for supervisors to take at least one period of sabbatical leave within the period of a doctoral candidate's time to completion.

Typically masters students have only one supervisor. In some departments masters students have a second supervisor, particularly where their research involves working closely with an external organisation.

Team supervision comprising several postgraduate students, post-doctoral fellows and/or supervisors working together has become prevalent. Such a team approach makes efficient use of limited supervisory resources.

3.4.5. Centralised administration and support for postgraduate students

With an increased focus on postgraduate education after 2000, all universities created a school, faculty, office or centre of graduate or postgraduate studies. Most also appointed a Board and a Dean of graduate or postgraduate studies.

All of the universities offer research skills support for postgraduate students from experts across a range of library, career and learning support service divisions. In 2007 The

⁴¹ To better promote the importance of postgraduate supervision as an academic teaching practice, The University of Auckland in 2005 added a teaching award for excellence in research supervision. Up to one academic receives this award per annum.

University of Auckland introduced a centralised Doctoral Skills Programme – the first of its kind in a NZ university. The programme has input from staff of the graduate centre, the careers centre, the library and the Centre for Academic Development. It is now compulsory for all doctoral candidates within their provisional year to attend a one day induction⁴². There has been significant discussion around why a programme with synonymous kinds of goals has not been introduced for masters students. By 2011 the other five universities had not introduced such centralised programmes for either doctoral or masters research students.

3.4.6. Contestable versus non-contestable funding for postgraduate research

All six universities have a history of providing contestable funding for postgraduate research through scholarships and other university-wide, or faculty- or department- based funds. In 2007 The University of Auckland introduced Postgraduate Research Student Support (PReSS) accounts to decentralise doctoral research funding and make it more accessible. Each student received a pre-determined amount of funding per year of enrolment based on the faculty in which they were enrolled (based on government funding bands). It was at the discretion of the supervisor to determine how the funds were spent, but funds could not be allocated to capital equipment. If funds were not spent within one year they were rolled over to subsequent years. Once the thesis is submitted the account is closed and the funds are no longer available to the student.

3.4.7. Opportunities to showcase postgraduate work

Throughout the 1990s all of the universities had departmental seminars or other events to showcase postgraduate student research. Post 2000 most universities have also offered university-wide and even community-wide conferences and other events to showcase postgraduate research. This contrasts with the almost complete invisibility of masterate and PhD research beyond departments and schools before this time. Since 2010 postgraduate

⁴² This induction day spends around one hour dealing with bureaucratic matters. The remaining time offers resources for more substantial and diverse services such as academic development, support for students with English as an additional language and information literacy.

students from all universities have had the opportunity to participate in the Australasian-wide three minute thesis competition⁴³.

3.4.8. Postgraduate student contributions to PBRF

Anecdotal evidence from doctoral candidates suggested that it had become quite prevalent since 2000 for supervisors to have their student write at least one article for publication within their provisional year of the PhD. Supervisors were often keen to co-publish articles with their students so that the publication could count towards the academic's PBRF evaluation. A publication track record was important for doctoral graduates who sought an academic appointment⁴⁴.

3.4.9. Incentives for timely completions

Since the PBRF was initiated, universities sent clear messages to masters and doctoral students that the expected maximum times to be taken to completion are 12 and 36 months respectively. This was through the period of scholarship stipends for masters being limited to 12 months and for doctoral being restricted to 36 months, with a possible six month extension to the latter. Also, the masters and doctoral calendars, provided for the planning of research degrees were limited to 12 and 36 months.

Universities, with the exception of Massey, have a tradition of encouraging doctoral students to enrol on a full-time, on-campus basis. Part-time doctoral candidature is only recommended in exceptional circumstances. Universities introduced a provisional first year during which time doctoral candidates were required to formally prove that they had a workable and manageable PhD topic. Universities tightened procedures around provisional year goals. Each student and their supervisor had to complete a joint end of provisional year report. At Auckland, within the provisional year, an intending doctoral candidate had to attend an induction day, complete both a full thesis proposal, a substantial piece of

⁴³ For information on the three minute thesis competition visit:
<http://www.postgraduate.uwa.edu.au/news/3mt/eligibility>.

⁴⁴ A doctoral candidate copublishing with his/her supervisor(s) raises challenging questions around intellectual property and authorship such as: How ethical is it for a student to gain credit for a thesis resulting from co-learning? Who should be lead author?

written work, obtain ethics approval and fulfil any other goals agreed with their supervisor(s).

In an attempt to raise doctoral completion numbers and reduce completion times, both Victoria University of Wellington and The University of Auckland provided financial completion awards, of NZ\$6,000.00, based on both timely and successful completion. There was substantial debate over ethical and equity issues surrounding such an award. Despite the award, the average completion time of a doctoral degree at the university remained in excess of five years⁴⁵.

3.4.10. Oral defence

All doctoral students in NZ are required to successfully complete an oral defence to be awarded their degree. Typically masters students have not been required to complete an oral defence for award of their degree. However, this was a practice within The University of Auckland geography department, until the 2000s when the number of masters thesis writing students became too great to reasonably sustain the practice. The masters level oral defence provided students a second chance to explain their research work. A student's grade could only be increased, and not decreased, from the mark that had previously been assigned to the written thesis, based on their performance in the oral exam.

3.5. Arriving at my research agenda

In chapters one and two I stated that anecdotal evidence suggested that (postgraduate) geography knowledge production both in NZ and globally exhibits some distinctive and generative practices. I argued that these practices both attract and empower students to complete higher degree research qualifications. Such training engenders sound knowledge, skills and attributes for careers as an academic or in a broad range of other fields within the contemporary global marketplace.

⁴⁵ From the start of the 2011 academic year The University of Auckland abolished the doctoral completion awards. The funds were redistributed to increase scholarships and other funding throughout the doctoral research process.

Table 3-1: Comparisons of university contexts and trajectories for postgraduate geography education

	University of Auckland	University of Waikato	Massey University	Victoria University of Wellington	Canterbury University	University of Otago
Promotional slogan	"NZ's leading university"	"Delivering a world class education and research portfolio"	"NZ's defining university"	"Get amongst the best"	"People prepared to make a difference"	"NZ's top-ranked university for research"
Strategic plans for annual masters and doctoral thesis completion rates	Increase masters and doctoral thesis completions to 800 and 500 per annum respectively by 2012	Increase the proportion of research postgraduate students	Grow research postgraduate numbers and completions to align with international standards for excellence by 2020	Progressively increase the number of research postgraduates to 1,217 by 2013	Research degree completions of 365 in 2011	Increase the number of research students enrolling
Non-contestable funding accounts for each	Postgraduate Research Student Support account for doctoral students					
Incentives for timely completions	Doctoral completion awards (discontinued in 2011)			Doctoral completion awards		
Option of thesis by or with publication	Thesis with publications		Doctoral thesis based on publications			Inclusion of materials from published papers
Centralised administration of postgraduate research degrees	School of Graduate Studies Dean and Board of Graduate Studies	Postgraduate Studies Office	Graduate Research School Doctoral Research Committee Dean of Graduate Research School	Faculty of Graduate Research Dean and Board of Faculty of Graduate Research	Postgraduate Office Dean of Postgraduate Research	Graduate Research Services with Director
Centralised support for masters/doctoral students	Doctoral Skills Programme including mandatory induction day	Optional workshops Thesis writing circles Doctoral writing conversations	Optional thesis writing workshops	Two day non-compulsory orientation programme	Thesis workshops every Thursday PhD mentoring programme	Optional PhD orientation workshops
Conferences or other showcases for postgraduate	Exposure	Postgraduate conferences in some disciplines	Postgraduate conferences in some disciplines	Postgraduate Student Association conference	Postgraduate conferences in some disciplines	Twitter conference
Training for supervisors	Mandatory one day for new supervisors	Optional conversations about best practice	Mandatory one day for new supervisors	Mandatory one day for new supervisors	Mandatory one day workshop for new supervisors	New teachers' day incorporation postgraduate

Source: University websites.

An initial conversation with my primary supervisor confirmed that no comprehensive study of postgraduate geography knowledge production in NZ regarding context, capacity, capability, content, or practices had occurred. The international literature suggested that no extensive investigation of knowledge production practices used in postgraduate geography had been undertaken anywhere within the world.

In this chapter I have demonstrated the rapidly evolving university environments in which postgraduate geography pedagogical practices have been performed in NZ since 1993. Universities have been repeatedly shaken and reshaped by higher education and other nation-state reforms.

There has been significant focus both in NZ and globally concerning the effects of performance-based assessments on academics' research activities, both within geography and across other disciplines – thus I considered that there was little evidence that more research needed to be completed about this topic. Thus, postgraduate research efforts and practices were not intended to be used as a proxy to measure broader academic research interests and activities. As it turned out, from my interviews with supervisors, the PBRF has significantly impacted research practices, including postgraduate pedagogical practices, for many supervisors. I discuss this in chapter six.

Despite twenty five percent of the PBRF depending on masterate and doctoral theses' completions, very little is known about what, in this thesis, I have coined the 'postgraduate geography knowledge production enterprise in NZ'. This includes the training processes and practices of researchers within geography in NZ, or even globally.

This research is concerned with *how* and *what* geographic knowledge is produced and disseminated, as much as with the production and dissemination of geographic knowledge. Therefore, a crucial interest of this thesis was to determine the distinctive pedagogical practices performed within the 'postgraduate geography knowledge production enterprise in NZ' since 1993. The distinctiveness of these practices was determined through a review and critique of postgraduate pedagogical practices in the international literature in chapter six.

Determining postgraduate geography's pedagogical practices is fundamental to understand *how* these practices might have built research capacity and capability, promoted global (academic) citizenship and engendered other knowledges, transferable skills and values. This required consideration of academic geography from outside of the geography discipline itself.

Chapter four presents the methodology for exploring firstly the size of the 'postgraduate geography knowledge production enterprise', and then, the practices that its key actors performed to sustain the enterprise in changing contexts.

Chapter 4. Methodology for exploring a knowledge production enterprise and its research practices

One should not assume...that research is merely a static and deductive process. On the contrary, good research is characterized by an evolving dynamic such that the research problems and questions may only be articulated fully when the study is far advanced. The ongoing process of collecting and analyzing data, endless discussions with others who bring new perspectives to bear and limitless personal thought and deduction may transform a routine problem into something new and different. (Anderson & Arsenault, 1998, p. 38)

Emulating Anderson and Arsenault's (1998) notion of 'good' research, my research process was an inductive endeavour: evolving and transforming. This approach mirrored and influenced my own transformations as a learner, teacher and researcher, and is reflected in the content and generative journey of this thesis.

4.1. Arriving at 'good' methodological practices

This research reflected Anderson and Arsenault's (1998) 'individualized' approach. Initially, my interest in the broad topic of this doctoral research developed from my own experiences as both an undergraduate and masters student of geography and as a cross disciplinary educator. With my masters thesis a physical geography and environmental management project, and some five years having elapsed between the completion of my masters thesis and the commencement of my PhD, I was not exposed to, nor at all familiar with relevant and contemporary research literature in the fields of human geography related to my topic. My situation indicated the divide between human and physical geography at The University of Auckland at that time. However, through my experiences as a cross-disciplinary educator, I was very familiar with relevant higher education literature. Therefore, to a large extent this topic was defined without regard to its position within the existing literature, and instead I worked backwards through an inductive process to find theories and research studies within the literature to frame my exploration. This approach "lends itself well to explanatory research and a wide range of descriptive studies"

(Anderson & Arsenault, 1998, p. 37). With close guidance from my experienced supervisor, the risk of encountering the “lack of boundaries and lack of focus” (Anderson & Arsenault, p. 37) that such an approach might engender was significantly reduced. With a topic for which very little had been officially recorded, this approach seemed the most appropriate.

This thesis progresses inductively from anecdotal evidence and empirical data from which emerge broader strategic propositions. I draw on Thrift’s (1996, 1997, 1999) non-representational focus on the performativity of practices through a lens of PSPE approaches developed at The University of Auckland (Le Heron, 2007, 2009) to illustrate the performance of postgraduate research practices through individual enactments and experiences (and the stories told) of space and place, rather than through the presuppositions of theory. I wanted the voices of supervisors and students, alongside my own and my primary supervisor’s, to be heard through the text of this thesis.

I took Arksey and Knight’s (1999) advice that “the choice of approach and the way any approach is worked out in a particular research setting is very much a matter of designing that which is fit for the research purposes” (p. 74). I employed the process-based methodological framework suggested by Yeung (2003): a “creative and coherent deployment of different methodological practices at different moments in the research process” (p. 442). As Yeung argued, such moments enabled me as the researcher to prioritise different methods depending on the questions posed, the theoretical approach taken and the research context. Such open and dynamic framings also enabled me to recognise the complex relations between actors and objects within postgraduate geography research.

This chapter provides a detailed chronicle of my research journey from determining my topic and supervisors to writing up this thesis. First I outline the multiple positionalities of myself and my primary supervisor in relation to the research, and a series of key events that led to the development and refinement of my topic. Second, I describe how and why this thesis draws on political economy theoretical understandings generally, and PSPE approaches specifically, to explore the performative processes and practices associated

with postgraduate geography research in NZ since 1993. Pratt (2000) wrote about human geography's methodological conservatism – what she perceives to be an ongoing disparity between how human geographers *think and the research methods that they employ*. She argued that human geographers have yet “to put much of our theoretical talk into research practices. Our talk may be that of poststructuralists, postcolonialists, or social constructivists, but our practice continues to be that of colonising humanists” (p. 639). Third I discuss how and why a database of the postgraduate geography knowledge production enterprise in NZ was created. Finally I describe how supervisors' and former students' perceptions of practices and contextual influences were gathered and interrogated.

4.2. Converging research trajectories: our supervision relation as a co-journey

Discussion and critique of my research journey in both spatial and temporal dimensions are key to the completeness of a thesis concerned with *how* geographic knowledge is produced. This chapter charts my research journey to and through this research, discussing which approaches I employed and showing how and why I adopted these certain approaches.

Travelling together with my supervisor through this research journey, it was frequently necessary to adjust the research itinerary. Retaining the open-mindedness, to constantly extend my thinking required trust in the supervision relationship. Flexibility and trust enabled me to take advantage of the evolving research interests, knowledge and experience of my supervisor. As he stated, “(t)he student-supervisor relationship remains fundamentally a relationship of trust. Trust to start with a supervisor, trust that fair calls are being made, trust that guidance is maximising potential, trust – and this is an enormous task – that it will be worth the effort” (Professor Richard Le Heron, cited in McEntee, 2006, p. 2).

I allude to how my supervisor and I are both observed and observer in relation to this research. Our ‘a-where-ness’ (Massey & Thrift, 2002) and positionalities, in particular spaces at particular times, were key to developing this research. Le Heron (2009)

acknowledged the significance of who is in the room, to what ideas are allowed in, generated in and can perform from that room.

In 2003 Professor Le Heron and I shared an interest in exploring the supervision relation as a key object of postgraduate geography research. At that time he had supervised some 75 masters and PhD theses to successful completion within geography in NZ over a 35 year academic career, first at Massey University and then The University of Auckland.

Previously he had experience of being supervised for a masterate in NZ, then a PhD in the US.

Le Heron drew inspiration from some of Harvey's (2000) key arguments, which became central to this thesis: multiple geographic knowledges exist, so representational attempts to define geography are fruitless; geographic knowledges are created at multiple sites; and geographers need to focus on methodological innovativeness.

Regarding his supervision relationships with students Le Heron (cited in McEntee, 2006) reflected "This began as an interest, evolved into a challenge and has become a passion" (p. 2). When presented with The University of Auckland's inaugural teaching award for Excellence in Research Supervision (in 2005), the citation⁴⁶ read:

With a passion for sound research and exploring ideas, Professor Le Heron fosters this same passion for critical thinking and research experience in his students. He sees the student-supervisor relationship, which he views in terms of co-learning, as central to the research. He has a talent for, and interest in, eliciting the best from students. Not only has he developed a 'college' of undergraduate and graduate students who have worked together on a number of projects, but he maintains a strong interest in the research of other postgraduate students in the School.

Professor Le Heron's sustained and productive integration of philosophy and praxis marks him as a leader in the art of research supervision. He has a strong interest in the scholarship of teaching and learning, and supports the broader research environment through publishing and presenting on the research process, and involvement in the New Zealand Tertiary Education Commission's 'Building Research Capability in the Social Sciences' initiative."

⁴⁶ This citation is available in the 2006 INLT Newsletter, issue November 2006: <http://www.geog.canterbury.ac.nz/inlt/inlt13.pdf>.

Table 4-1 displays some of the relevant professional activities to this research that my supervisor and I respectively engaged in. The table distinguishes between activities engaged in prior to and throughout the research.

Table 4-1: Selection of relevant professional activities as supervisor and student

Time period in relation to research	Richard (Supervisor)	Julie (Part-time doctoral candidate)
Pre August 2003 At the start of the doctoral research supervision relation	Master in geography in NZ PhD in geography in US 37 year career as academic geographer in NZ Interest in pedagogy, and specifically in supervisory practices and the student-supervisor relation Supervised many masterate and doctoral research students Engaged in many national and international projects Active participant in INLT Geography	Bachelor of Science majoring in geography Master of Science in geography Co-author of two books Cross-disciplinary educator Participated at national and international higher education conferences Author of four papers in conference proceedings. Co-author of journal articles
August 2003 to October 2011 Throughout the doctoral research supervision relation	Award for teaching excellence in research supervision (2005) Supervising honours, masterate and doctoral students Co-learning and co-production PSPE Capability building BRCSS Emergent/ progressive knowledge spaces Interdisciplinary and transdisciplinary research Member of Biological Economies national research project Recognised partner in the World Universities Network's Global Challenge in Higher Education and Research	Active participant in INLT Geography Co-author of one book Co-author of new edition of one book Participated at national and international higher education and geography conferences Author of seven papers in conference proceedings Co-author of journal articles

There are many significant moments in time, markers or drivers that influenced the pathway of this research journey. These moments, markers or drivers are presented in order of their occurrence in Appendix B. Attendance at and participation in a number of seminars and workshops organised by the School between August 2003 and October 2011 also influenced my thinking about co-learning, performativity and interdisciplinary/transdisciplinary research. Like Le Heron (2009), “I found it hard to see too far beyond the immediacy of participation and was probably more a travelling learner than a strategic participant” (p. 140).

4.3. Reflecting on the research itinerary

My research can be framed as eleven specific objectives, each of which have one or more associated research objects and a methodology or research method (Appendix C). Appendix C shows how each research objective adds value to the overall research process *and the overall thesis topic*.

A review of international literature in late 2004 suggested that no overall empirical exploration of postgraduate geography knowledge production had occurred⁴⁷. The first step of this project was therefore to determine an appropriate point of entry to understanding the geography knowledge production enterprise within NZ and its associated research practices⁴⁸. I deemed it logical to construct a database of all completed geography theses. Through producing a substantial thesis, equivalent to at least one full-time year of study, repetitive and sustained sets of postgraduate research practices emerge. Prior to this research, no overall dataset had been developed and maintained of all postgraduate

⁴⁷ However, as already mentioned in chapter two, in 2005 the AAG initiated the EDGE project to investigate postgraduate geography education across the US.

⁴⁸ With a great deal of regional-and national-determinism associated with the teaching, learning and research activities of each geography department in NZ, it was determined early in the research process that it would be insufficient to base an exploration of postgraduate geography research practices on the experiences of supervisors and students from only one or a selection of departments.

qualifications completed in geography in NZ, including masterate and doctoral theses completed⁴⁹.

The research involved six main phases. The first three phases provided important contextual data to ‘set the scene’ for the final two stages. First, the academic sites of postgraduate geography research were established. Second, a database was constructed from university library catalogue records of masters and PhD theses completed⁵⁰ in geography in NZ since 1993. This stage also involved the collection of the abstracts and acknowledgements from each masterate and doctoral thesis to determine the extent and content of, and which supervisors and students were involved in, the postgraduate geography knowledge production enterprise in NZ. The third stage involved quantitative analysis of the database information, as well as analysis of the abstracts and acknowledgements. Detailed analysis of the dataset, abstracts and acknowledgements needed to occur before deciding how to proceed to the next data collection phase. In the fourth stage students and supervisors, identified during the second and third phases, were interviewed about their postgraduate research practices and experiences. In the fifth phase, practices and strategic propositions were drawn from abstracts, acknowledgements and interview transcripts. Sixth, the empirical evidence about research practices was reassembled into a research capacity-capability framework to consider how such practices might be made more generative and therefore maximise the work that this geography PhD is potentially ‘doing’.

⁴⁹ Le Heron et al. (2010) reported that neither systematic collation of the abstracts, nor publishing of the findings, from completed geography masters theses had taken place. The only systematic record maintained was an annual national register of proposed masters thesis topics that existed from 1991 to 2002. The University of Otago Department of Geography however maintained a database, updated annually, of the masters and PhD theses completed in that department (http://www.geography.otago.ac.nz/research/student_thesis_search).

⁵⁰ I only included completed theses in my empirical research. The main reason was that students needed to have completed a thesis to have experienced an entire supervision relation. Former students were also able to provide a reflective perspective on their supervision experiences. Such an approach limited potential conflicts of interest between participants and me as the researcher.

4.4. Academic geography departments: Sites of postgraduate geography research

In 2005, I searched each of the eight NZ university websites to confirm which had a geography department and a postgraduate geography programme. I established that since 1993 postgraduate geography education had been offered and completed under the title of 'geography', at both masters (by coursework and/or thesis) and PhD (by thesis only) levels at six NZ universities: The University of Auckland (Auckland), the University of Waikato (Hamilton), Massey University (Palmerston North), Victoria University of Wellington (Wellington), the University of Canterbury (Christchurch), and the University of Otago (Dunedin). Geography has continued to be located on the main campus at these universities. While postgraduate geography qualifications were not available at either Auckland University of Technology (Auckland) or Lincoln University (Christchurch), both institutions have employed academics who were former postgraduate geography students and confirmed themselves as academic geographers at the time of interview for this study. Two of these interviewees considered themselves supervisors of postgraduate geography students. Some academic geography will likely have been undertaken by postgraduate students in other disciplines.

4.5. Constructing a database of postgraduate geography theses completed

Prior to my research work, no comprehensive inventory of postgraduate geography research activities in NZ existed. Therefore, construction of a database of completed masters and PhD theses was an important first step in my empirical research.

4.5.1. Searching library catalogues

A combination of somewhat less conventional steps were adopted to compile a database of geography masters and PhD theses completed in NZ since 1993. I searched the electronic library catalogues of each of the six universities where postgraduate geography education was performed in NZ. I undertook an 'advanced search' using the keywords 'geography' and 'thesis'. This was to ensure that the results reflected only theses that each geography

department or student had self-classified and catalogued as positioned within geography. However, I discovered that often these classifications had been made externally to the geography departments. I included all geography masterate and doctoral theses that had been deposited in each library. My dataset was restricted to completed theses awarded a passing grade, as those that fail are not included in university library collections.

This search of library catalogues provided the university name, the year the thesis was completed/ added to the library collection, the degree for which the thesis had been completed, the thesis title, and the student's name. In some cases an abridged version of the abstract and a list of keywords were also available. Ongoing updates were made to the database until mid 2009 to ensure that it included all masters and PhD theses completed from 1993 to 2008⁵¹.

4.5.2. Defining a (geography) thesis

In this thesis I focused on masters and PhD degrees at levels 9 and 10 of the NZ Qualifications Framework (NZQF)⁵², as I was concerned with exploring postgraduate knowledge production where research constituted at least 50 percent of the qualification. This is in accordance with how the PBRF defined what proportion of research a postgraduate degree must contain to attract research funding. Defining and identifying what constituted a geography masters or PhD thesis was not straightforward. The NZ postgraduate geography scene is complex: complicated by significant disparities in the positioning and practices across the six geography departments in relation to other disciplines and fields and changes through time. For example, at the University of Otago planning was a strong component of the postgraduate geography programme; environmental science was housed within the Department of Geography at the University

⁵¹ It is possible a thesis may not be deposited in the university library until up to six months after it has been marked.

⁵² The NZQF ranks NZ's quality assured qualifications according to ten levels from National Certificate of Educational Achievement (NCEA) at secondary school to doctorate. For more information see: <http://www.nzqa.govt.nz/studying-in-new-zealand/nzqf/nzqf-levels/>.

of Canterbury; and geography was in a school offering closely related master degrees in development studies and environmental studies at Victoria University of Wellington.

Geography's inherent interdisciplinarity (Schoenberger, 2001), and the significant overlap of geographic knowledges with those of other disciplines (Harvey, 2000), complicated efforts to define and identify the application of geography in postgraduate research.

However, I was ultimately concerned with postgraduate geography research practices more than with geographical knowledges, although I argue that practices are a component of knowledges in that they are *'know how'* and *'knowing doing'*.

The postgraduate geography research landscape had also been complicated by the trend toward more interdisciplinary postgraduate research endeavours, particularly at PhD level. As PhDs are degrees of the university, rather than of the faculty or colleges as for masters, PhDs tend to be more interdisciplinary and difficult to classify as geography. It is likely that several research students, particularly at the PhD level, whose work was supervised by at least one geography academic, opted to allocate a non-geography discipline as their 'home' discipline. Their thesis was then classified as contributing to a discipline other than geography. Therefore, the numbers of geography PhDs, and possibly masters, thesis completions reported in this thesis are likely to be less than the total number of theses that were actually supervised by geography academics in NZ. When presented with the option of either being awarded their degree in geography or a professional discipline such as planning, many students opted for the professional degree over the geography one. It became 'trendy' to acquire a degree in environmental science, environmental planning or development studies, as these fields attracted significant research funding and employment opportunities.

The complexity of these contextual issues led me to contemplate the multiple ways in which geography theses might be defined. These included: which department/school the student ascribed as their home discipline; which degree would be awarded; did the primary supervisor, or at least one supervisor need to be a geographer?; whether the student desired to be identified as a graduate of geography; and the prominence of geographic knowledges

or approaches within the thesis. Then I asked did a thesis only count as geography if the answer was yes to all the preceding questions? My broad criterion for a geography thesis was the department/school or degree under which it was awarded. I realised that I would probably never locate all theses completed from 1993 to 2008 that could be defined as geography.

Visits to each department enabled me to cross-check that I had included all geography theses. Additional geography theses were identified when I engaged in conversations with relevant actors (Heads of Department/School, supervisors, students, and subject librarians) at each university. At the University of Otago, three geography academics were adamant that planning theses should be included: as planning is only offered at postgraduate level, students who complete the degree typically have an undergraduate degree majoring in geography. At Victoria University of Wellington geography academics agreed that both master of development studies and environmental studies theses should be included. For the University of Canterbury, master of environmental science theses were included following a discussion with the geography librarian.

4.5.3. Collecting abstracts and acknowledgements

All thesis abstracts⁵³ and acknowledgements⁵⁴ were collected, generally by locating the hardcopy of theses⁵⁵ while visiting departments. Each abstract provided additional information to that provided by the thesis title for the database on the area(s) of geography to which the research contributed. A record was kept of interdisciplinary theses supervised by an academic from another discipline as well as one from geography. Abstracts provided more information than thesis titles regarding the site(s) of knowledge production. Furthermore, the abstracts indicated the broad theoretical and/ or empirical approaches employed in each thesis.

⁵³ A review of the existing literature determined that analyses of research abstracts to date had been largely concerned with lexical content (Stotesbury, 2003).

⁵⁴ Giles and Council (2004) acknowledged that “Despite their promise as an analytic tool, acknowledgments have remained a largely untapped resource” (para. 5).

⁵⁵ It is only since about 2004 that theses have become available online in digital format for downloading.

Acknowledgements typically thanked the supervisor(s) of the research, although a few made no mention of the supervisor(s) or other support. Supervisor information was added to the database. Acknowledgements further highlighted the degree to which the research was associated with the production of geographic knowledges in sites beyond the academy. Acknowledgements also indicated the physical, academic, professional and social spaces significant in the knowledge production process.

4.5.4. Visiting geography departments

Visits to departments provided me with a sense of the spaces and practices of postgraduate geography knowledge production at each university. These visits gave me the opportunity to meet supervisors and postgraduate students who I had not previously met. I built rapport and had informal conversations with these supervisors and students, as we ‘toured’ their departments.

One supervisor suggested an analysis of supervisors’ and examiners’ reports would reveal research practices. However, this was not realistic considering the confidentiality issues involved, especially given my position as a postgraduate geography student.

4.6. Awareness of a-where-ness

In drawing on feminist-based PSPE approaches it was important that my supervisor and I made our multiple positionalities explicit, recognised the significance of the politics of our positionalities and adopted a critically reflective stance (Ateljevic, Harris, Wilson, & Collins, 2005; England, 1994; Jackson, 1993; Kobayashi, 1994; Kobayashi, 2003; McDowell, 1992; Nagar, 2002; Rose, 1997).

Simply put, positionality takes account of the risk that the objectivist neutrality of any observer of human behaviour may in reality be skewed by their personal characteristics (race, class, ideology) and by their relationships with their subjects of observation. The subtle negotiation of power between observer and observed is material in the nature, quantity and quality of the data retrieved, and at the very least it is therefore incumbent upon researchers to reflect on their own position in the process of research. The development of a wide range of qualitative techniques

of enquiry has, in recent years, facilitated work that is reflexive without becoming self-centred. (Atkins, 2004, p. 3)

As a researcher my knowledge construction was partial and situated, influenced by my positionality, and dependent upon the content and context of the research setting. However, I was aware that such a move had been criticised as “cultural geography’s fragmenting, reflexive self-obsession” (Peach, 2002, p. 252).

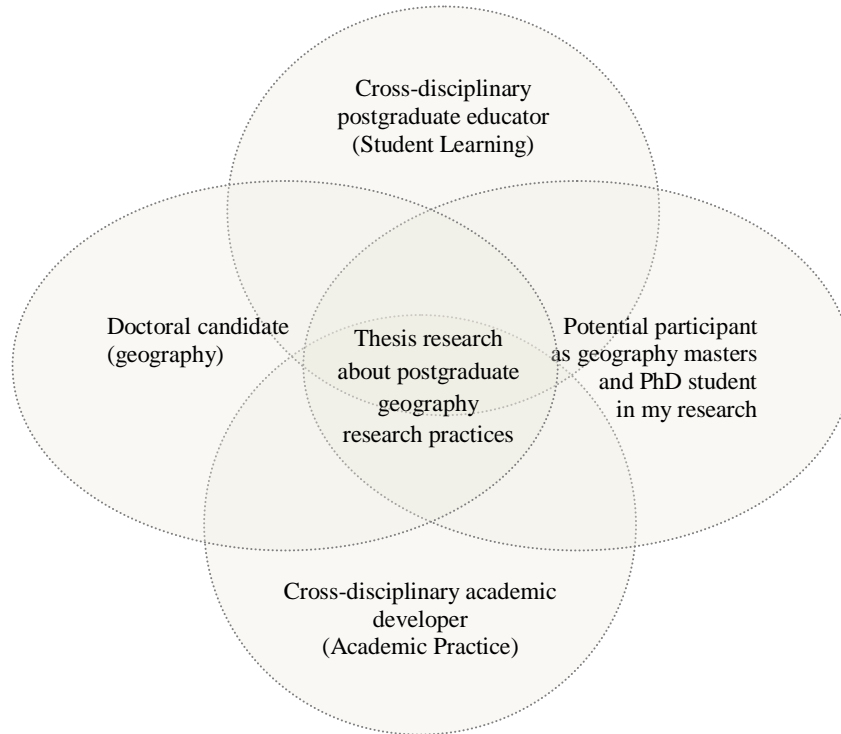
I was particularly attracted to the notions of insider, outsider and inbetweenness to articulate my positionalities. Like Hopkins (2009) “I see myself as occupying a space of ‘betweenness’...I am simultaneously positioned in a number of different social category groups that place me at various levels of similarity and difference with the research participants” (p. 6). Nast’s (1994) description of positions of betweenness as “constant negotiation between various degrees of difference and similarity” (p. 57) resonated with my research experience: levels of difference and similarity varied throughout the research in different places and at different times. As Nast (1994) explained, “(b)etweenness thus implies that we are never “outsiders” or “insiders” in any absolute sense” (p. 57).

Rose (1997) cautioned that the “negotiations that are part of a research process are not fully knowable” (p. 317). Such uncertainty may cause researchers to overlook the effect of their positionalities. I accepted that my supervisor and I would never be fully aware of the complexities associated with our multiple positionalities, how they manifested during the research, how others interpreted them, and how they influenced the research participants. Nevertheless I believe that researcher positionality is key to ethical social science research.

During my doctorate I occupied multiple, distinct yet overlapping, positionalities. As a geographer by qualification and a cross-disciplinary educator by trade, I was both an insider and an outsider in relation to geography. I worked with academics and postgraduate students from diverse disciplines on a daily basis. I therefore brought beyond- or outside-disciplinary experience and perspective to strengthen the argument that I made about the distinctiveness and success of research practices in postgraduate geography in NZ. Simultaneously I was a PhD candidate in a supervision relation who was exploring

masterate and doctoral research practices. Figure 4-1 exemplifies my multiple positionalities in relation to my research.

Figure 4-1: My multiple positionalities in relation to this research



As part of this research it was important for me to reflexively critique concurrent transformations of my philosophies and practices. I paid particular attention to how transformations experienced in one situation were deeply entwined with, and complicated by those in the other situations – a kind of co-transformation and co-learning. I considered both the positive synergies and tensions that emerged from occupying simultaneous positions of academic and student, researcher and researched, insider and outsider, and the like. I strategised about how this research and thesis could further my academic career trajectory.

I brought a multitude of attributes and experiences to my research: my occupation of multiple intellectual and practitioner spaces with a reflective and reflexive approach; a passion for geography and learning; a master in physical geography; plus, a role where I advised on postgraduate research practices and learning.

My background and multiple positionalities exposed some important methodological questions:

- How would I participate in my own research as a doctoral candidate?
- How would my supervisors participate in the research?
- In crossing higher education and geographical borders, which involved traversing an unchartered divide, how would I construct a strong theoretical and contextual foundation and framework?
- How would I manage my conflicting roles, conflicts of interest, ethical dilemmas and confused identity and sense of belonging? and
- How would I address uncertain acceptance, dissemination and application of the knowledge produced?

4.7. Feminist approaches for investigating postgraduate pedagogies

I took heed of Kindon's (2003) call to adopt methodologies and feminist approaches that do not "perpetuate hierarchical power relations nor create voyeuristic, distanced and disembodied claims to knowledge" (p. 142) or about knowledge production. I was conscious of maintaining an approach with the "potential to destabilize hierarchical power relations and create spaces for transformation by providing a practice of looking 'alongside' rather than 'at' research subjects" (Kindon, 2003, p. 142). "(C)onsiderable attention needs to be paid to the negotiation of the research relationships if hierarchical power relations are not to be reproduced" (Kindon, 2003, p. 143).

Feminist methods have recognised that relationships are ideally based on mutual concern and trust. My research acknowledged the importance of mutual respect and involvement, shared responsibility, and valuing difference. This had implications for *how* and *what* knowledge was produced. Thus I adopted Ekinsmyth's (2002) "understanding of feminist methodology as being concerned with: an acknowledgement of the partiality of all knowledge; a sensitivity to power relations; a faith in 'everyday knowledges'; an openness

to a diversity of approaches; and the importance of emancipatory goals for research outcomes” (Kindon, 2003, p. 150).

Anderson and Smith (2001) observed the “silencing of emotion in both social research and public life” (p. 7), noting that within human geography, “what little talk of emotion there is occurs squarely in the cultural (and often feminist) corners of the discipline” (p. 7). They commented on the ways in which emotional topographies might be written into economic geographies. An emotional geography approach offered intimate, personal and embodied narratives of supervisors’ and former students’ experiences, enabling the emotions and feelings associated with particular places, spaces, events and times to be better understood. One intention of this research was to make significant contributions to understanding the ways in which geographers perceive, think about and do geography – geography as a performance. As well as highlighting a broad range of inequalities and socially constructed hierarchies, feminist geographers have also demonstrated the ways in which everyday spaces are imbued with gendered meanings, associations and assumptions. NZ universities have exhibited the characteristics of such spaces. Supervisors and students appreciated opportunities to share their experiences.

4.8. Moving beyond representational theorising through a post-structural political economy lens

This thesis draws on recent attempts within both geography and broader social sciences to move beyond representational theories: structural approaches concerned with studying and representing phenomena or processes and the relations among these. As a post-structural approach, non-representational theory (Thrift, 1996, 1997, 1999, 2007) focuses on practices - how human and nonhuman formations are enacted or performed. Jones and Murphy (2010) concluded that economic geography’s “shift towards practice-oriented work is...a development and diversification of longstanding strands of work within the sub-discipline” (p. 303). I therefore considered that the practice ‘turn’ from post-structural research in human geography, grounded in a non-representation framing, provided a

potentially valuable way to understand and explain the supervised research domain in the life of the discipline.

Anderson and Harrison (2010) defined non-representational theories as “disparate and potentially loosely connected bodies of thought which do not prioritise the role of representation in their accounts of the social and the subject” (p. 2). According to Anderson and Harrison, “(i)f one thing can be said to characterise non-representational work in Human Geography over the past 15 years it is the attempt to invent new ways of addressing fundamental social scientific issues and, at the same time, displacing many of the issues into new areas and problems. In doing so we believe that it has multiplied ‘signs of existence’, helping to introduce all kinds of new actors, forces and entities into geographic accounts and, at the same time, aiding in the invention of new modes of writing and address and new styles of performing Geographic accounts” (p. 2).

Given that non-representational theories are also concerned with representations, I agree with Dewsbury, Harrison, Rose, and Wylie (2002) and Lorimer (2005) that the terms ‘on-representational’ or ‘more-than-representational’ respectively better describe the agenda than non-representational: ‘on’ (Dewsbury et al.) or ‘more-than’ (Lorimer) imply that such theories add to rather than being an alternative or opposed to the representational.

This inquiry is framed in a broad combination of political economy and post-structural theoretical understandings – what Le Heron (2007, 2009) described as a PSPE approach. PSPE draws on a blend of representational and non-representational understandings of geography. With the post-structural political economy approach, all social processes are significant determinants of economic outcomes, the behaviour of economic agents and institutions, and the direction of change over time.

The political economy emphasises institutional dimensions in which universities and geography departments are set as important contextualising influences upon pedagogical practices. A political economy approach is premised on politics and economics being inherently interlinked. This approach enabled me to explore how economic and political structures and processes, and the relationships among these in the global, national, local,

university and other institutional contexts (might) have shaped and reshaped NZ's postgraduate geography research practices.

A post-structural approach, drawing on non-representational thinking, emphasises the performance nature, both actualities and effects, of the pedagogical practices that postgraduate students and supervisors enacted. This perspective was used to conceptualise the various processes that comprise the university and the nexus among these. I considered processes or practices, rather than structures because post-structuralism implies perpetual change: change in one process leads to change in all other processes.

Not only has this research adopted a post-structural political economy approach, but several other doctoral theses completed in recent years at The University of Auckland have been based on this approach (Le Heron, 2006, 2007). Thus, simultaneously I have drawn on and examined this approach.

4.8.1. Situated knowledges

Within a PSPE approach situated knowledges infer assemblage of research practices with purpose. This thesis explores situated knowledges and the interdependence of these knowledges. Haraway (1988, 1991) developed the notion of partial or situated knowledges, subsequently extended by Rose (1997) and others. Situated knowledges are linked to performativity and positionalities in terms of the relative positions and interrelations of the research, researched and researcher.

By taking a post-structuralist approach to political economy, I de-centered the traditional narrow focuses of political economy to employ a more 'radical' form of political economy. Le Heron (2007) stated that in a PSPE-style approach "knowledge production and use is argued to be situated, identifying the social relations of the knowledge-producing process, the social relations of the structural context, the embeddedness and embodiment of actors in multiple placed processes and the governing regimes and networks of association" (p.

31)⁵⁶. Kench and his colleagues' (2008) findings exemplified the significance of such situated knowledges in coastal research practices in NZ.

4.8.2. (Good) postgraduate pedagogical practices

The non-representational and PSPE literatures that provided the intellectual trajectory for informing this research methodology emphasised the importance of practices; the need for method to confront practices and the ability to 'see' practices through a practice-oriented method.

The Oxford Dictionaries (online) defines a practice as “the actual application or use of an idea, belief, or method, as opposed to theories relating to it...the customary, habitual, or expected procedure or way of doing something...repeated exercise in or performance of an activity or skill so as to acquire or main efficiency in it”⁵⁷

Thrift (1997) described non-representational theory as concerned with “mundane practices, that shape the conduct of human beings towards others and themselves in particular sites” (p. 127). By 2007 he understood practices as “material bodies of work or styles that have gained enough stability over time, through, for example the establishment of corporeal routines and specialized devices, to reproduce themselves...productive concatenations that have been constructed out of all manner of resources and which provide the basic intelligibility of the world” (Thrift, 2007, p.8).

I employed the term 'good practices' rather than 'best practice' in relation to postgraduate pedagogical practices. This decision is consistent with Rehn's (2009) argument that:

“best practice” is “stuff that worked in the past”. In practice (sic), best practice is a product of our history, and an attempt on our part to retell our history in a way that makes us seem to be both in control and having progressed to a state of

⁵⁶ Work by Le Heron, Lewis and some of their PhD students over the past decade has related to PSPE (Le Heron, 2007; Lewis, 2009, 2010) or nature-society relations under neo-liberalism (Lewis, 2010). For further details on these approaches visit Le Heron's staff profile:

http://www.sgges.auckland.ac.nz/about_us/our_people/leheron_richard/index.shtm.

⁵⁷ This definition was quoted from:

http://oxforddictionaries.com/definition/practice?rkey=hU6luE&result=1#m_en_gb0654670.003.

*certainty. In this manner, best practices represent the standardization of thinking, and also the way in which we try to limit it. **The concept of best practice could in this way be seen as the opposite of innovation, where the latter celebrates the fact that the future will change how we see things, and the former focuses on what we've learnt from history.** (para. 5)(emphasis added)*

The enterprise is explored through consideration of the distinctive and generative practices and spaces that emerge in geography in relation to student-supervisor relations. Distinctive practices are defined as “*the advantage and the relevance* that the discipline might claim when seeking to attach its work to other political projects...It is a deep understanding of situatedness in all its dimensions of knowledge production *and what is to be, can be and should be known*” (Le Heron & Lewis, 2011, p. 4).

4.9. Exploring supervision practices through modest dialogue

One objective of my research was to gather qualitative data that explores postgraduate geography research practices, of which the supervision relation is an important aspect. As this research reflects on practices since 1993, a fairly traditional approach of interviewing supervisors and students as the key actors involved in these practices was considered the most appropriate method. Less traditional approaches such as keeping a diary would only have worked if the research was concerned with current research practices, but such a method of data collection would have taken too much supervisor and student time. The voices of a range of supervisors and students were important to substantiate my own knowledge gained from personal experience, the literature and my initial empirics (Strauss & Corbin, 1990).

4.9.1. Participant recruitment

Once a comprehensive list of the students and supervisors engaged in thesis research activities was established through construction of the database, I considered how these key actors could most effectively contribute to this research. One group of potential participants

invited to take part in this research were the around 1200⁵⁸ authors of both masterate and doctoral geography theses submitted within NZ from January 1993 to December 2008. To minimise conflicts of interest and other potential ethical issues, and to achieve the benefits of hindsight and reflection, student participants had completed masterate or doctoral theses. In reality a number of former masters students interviewed were still completing their PhDs at the time of their interview.

Student participants were recruited with broad representativeness in mind: former masterate and doctoral thesis writers, completion years, main areas of geography theses contributed to, and geography departments. The intent was to ascertain the diversity of practices/ experiences so as to avoid unwitting consolidation of often told supervision stories. The reality was that it was very difficult compiling an active address list of former students despite multiple strategies. Participants were recruited through institutional or departmental records, supervisor knowledge, present masters and doctoral thesis students, departmental seminars presented by me, 'Google' searches, contacts established via on-line social networking sites such as 'Old Friends' and 'Face Book', and word of mouth/ a snowballing effect. Where possible, contact with potential participants was made initially via an email invitation (Appendix D).

The other group of potential interview participants was the 228 supervisors of this research. In the case of supervisors, I attempted to recruit as many as possible. With limited movement of geography supervisors over the last two decades, and supervisors' international profiles, supervisors were easier to locate and recruit than students. I was keen to talk to the twenty or so supervisors who had the greatest supervision experience, especially as 20 supervisors accounted for more than 800 submitted theses over the period. The second intervention was aimed at establishing a clearer idea of the accumulated supervision understandings of these supervisors and their students. The two strategies – concern with the range of practices and possibly more strongly codified and reflected on

⁵⁸ It is not possible to determine the exact number of students involved in completing theses, as some students who have completed both a masters and PhD thesis may have changed their surname between submission times.

practices – would allow both in-depth and broad reflection. I also sought the perspectives of those who had comparative experiences of supervising in overseas universities; and to interview new supervisors who had both completed a PhD and commenced supervision within the time period with which this research is concerned. As with students, initial contact with supervisors was generally made via an email invitation to participate in the research (Appendix D). The decision was made that it was inappropriate to interview my supervisors.

4.9.2. Design of interview questions

Students' and supervisors' individual perceptions and experiences were collected through the use of semi-structured, in-depth interviews. The decision to use such interviews was related to the PSPE theoretical framework on which this thesis is based, which acknowledges that a relationship comprises people, objects, settings as active agents and the possibilities conferred by their associations. Semi-structured interviews allow interviewees to “construct their own accounts of their own experiences by describing and explaining their lives in their own words” (Valentine, 1997, p. 111). Thus supervisors and students were able to raise issues and concepts that neither I nor my supervisors would have anticipated or experienced.

There was one set of interview questions for supervisors and another for former masters and/ or PhD students. The interview questions were all open-ended to explore the supervisors' and/ or students' perceptions of their research practices through a depth and fullness of narration and conversation. Supervisors and students were asked to reflect on their experiences and practices, as well as to provide opinions and judgments. Some questions also required participants to provide evidence for a response that they made. The interview questions for supervisors and former students are presented in Appendices E and F respectively.

The topics that were addressed through the interview questions included:

- The reasons why postgraduate research was undertaken;

- The reasons why a particular research discipline and topic was chosen;
- The nature of the supervision relations – specifically the most and least effective supervision practices; and
- The contextual practices and processes.

4.9.3. Ethics approval

Ethics approval was applied for and granted by The University of Auckland Human Participants Ethics Committee in May 2007 for a period of three years.

Permission was sought from the Head of Department of each geography department to interview supervisors and students. Due to the sensitive nature of information about one university being leaked to other competing universities, Heads of Departments' concern about maintaining anonymity and confidentiality was understandable. All six Heads of Department granted approval for the research to take place. However, one Head of Department gave permission for me to collect individual data provided the department was not named in my thesis in relation to any responses made. This however posed no major problem as the concern of the research increasingly focused on instances of and insights from specific practices. Unwittingly the request meant the research was not entrapped into framing to the present (e.g. departments) and instead could explore category and classificatory framing *from the data*. Each supervisor and former student was invited to participate in an interview and received a participant information sheet (PIS). There was one PIS for former students and another for supervisors. The PIS contained sample responses to two of the interview questions, to assist participants with their responses. (Appendices G and H).

4.9.4. Piloting the interview questions

I completed a pilot with four participants to ascertain: their ability to understand and answer the interview questions; that the interview would take no more than one hour to complete; to glean an idea of the range of responses that I might obtain; and to check that the responses would actually answer my research questions. Two of these participants were

supervisors: one very experienced; the other comparatively inexperienced. The other two were former students, one had completed a masters and the other had completed both a masters and PhD. Following the piloting exercise, I made a few minor modifications to the interview questions to improve their clarity. All four pilot testers raised concerns over what I meant by practices. One commented '*Questions sometimes a bit hard to answer. Maybe some more prompting good: examples of practices*'. These responses are perhaps understandable. The interviews took place before the 'practice' turn appeared in geography. I subsequently added tables of example practices to the PISs for supervisors and students. As only minimal changes were made to the interview questions, it was not necessary to reapply for ethical approval. At that stage relevant data from the transcripts of these four interviews was expected to be incorporated into this thesis.

4.9.5. The interview process

Each supervisor or student who agreed to participate in the research was sent a covering email (or in a few cases posted a letter), a copy of the interview questions, participant information sheet and consent form (Appendix I) at least a week before the interview was scheduled to take place. I assumed that more detailed responses would be made if the participant had more time to reflect on and record their experiences and perceptions. Participants were also informed that they could contact me after the interview if they thought of further information that they wished to share with me (ethics approval was obtained for 'modest dialogues' to occur).

It is well recognised in the literature that the place and space in which an interview is conducted can significantly impact on the nature of responses. Wherever possible I interviewed participants in their own places or spaces: generally their place of work or study, and in four cases at their home. In three cases the interview was completed at a conference venue, in one case in a university café, and in six cases in my work space. In a number of cases it was not possible for me to interview a participant within a shared physical space or place. In these situations Internet messaging services, such as Skype or Yahoo, using webcams were preferred over telephone interviews, as a close proxy to a

face-to-face interview could be established. If this was not possible, interviews were completed by telephone. If all else failed, participants typed or handwrote their answers to the questions and then returned them to me by email or post. The use of the BRCSS Access Grid was considered as an option to interview supervisors and students located at other universities, but logistics associated with booking rooms and arranging onsite technical support at both campuses rendered this option unfeasible.

Building rapport with interview participants was not often necessary, as I already knew many participants prior to the interviews. Types of relationships I had were current and past fellow students, students who sought my advice at the Student Learning Centre, tutors who I had trained, past lecturers, colleagues in the INLT, co-authors of journal articles, editors of journals for which I peer reviewed and people I had met at conferences or during department visits. However my insider positionality often created concerns over confidentiality and anonymity. One supervisor asked me at the outset of the interview *'Will your supervisor hear this?'* I was acutely aware of the potential sensitivity of the issues raised. I had to be careful to establish and retain a high level of trust with the participants. As an interviewer I attempted to take a detached stance, listening actively without making judgments, and remained open to opinions that might differ to my own or those of my supervisors.

A power imbalance between the researcher and the researched is a common issue in interview situations, where the researcher typically holds the majority of the power. It was important to address the relations of power and rights within the research process as well as the central question of whose reality might gain dominance and legitimacy throughout the research process. Reflexive approaches enabled me to "join with another, to see together without claiming to be another" (Haraway, 1991, p. 193). In terms of destabilising researcher/researched relationships, I wanted the experience to be empowering for the individuals involved. Many of the supervisors and students who I interviewed were experienced in both interviewing and being interviewed, so there was generally a fairly equal power balance. Such participants could potentially shift the power relationship and

subvert the interview. All interviews were conducted in a fairly informal manner around a table rather than on opposing sides of a desk with supervisors and students treating me as an equal. Often the process became far more of a two-way conversation than an interview between me as the researcher and the participant. The transcripts reflect conversations or dialogues. Such a conversational approach enabled supervisors and students to be 'participants in' rather than 'subjects of' the research.

I considered it important to discuss the participants' self-representations and reflexivity, as well as acknowledge my influence as the researcher, and promote my own reflexivity. Interview transcriptions were analysed to create understanding and make meaning by being treated as representations and/or performances produced in the context of social relationships and strategies of self representation (Pink, 2001, p. 87). Participants often questioned my research, challenging my assumptions and thinking – a kind of co-learning (Le Heron et al., 2006). Some participants asked me almost as many questions as I asked them. Many participants answered my question with a question – and one supervisor added *'this is what you get when you talk to an academic or someone who has completed a higher degree'*.

Many supervisors remarked: how they valued the opportunity to reflect on their supervision practices; how they had never considered some of the questions I asked them; and how they were interested to know their colleagues' supervision practices. Former students, particularly PhD graduates, described the interview process as very cathartic or therapeutic: like an exit interview. Students felt valued that in their busy lives a convenient forum was provided where they could share their stories. When reflecting on their experiences, students often re-engaged with knowledge, skills, practices or other experiences they deemed beneficial to their professional and personal lives. Interviewees shared their positive interview experiences with colleagues, leading to an influx of requests to be interviewed.

I understood the importance of being an 'observant participant' (Thrift, 1996) rather than participant observer in the research process, and the importance of the research context.

Participants retained the right to veto the use of any personal information they provided for research and publication purposes. Participants were given the opportunity to define and describe research practices in whatever way they saw fit.

I found that having former students reflect on their experiences led to both advantages and challenges. Some students had difficulty remembering their experience. Those who completed their masters and PhDs at the same institution often had difficulties distinguishing between their masters and PhD experiences, often exacerbated if the student had maintained the same supervisor or supervisors for both their masters and doctoral degrees.

Each interview was recorded for transcription, on the proviso of participant consent. As Crang (1997) pointed out, exact recording allowed me to note tones of voice, hesitations and the emphasis that participants gave to various statements when transcribing the data. Digital recording also enabled me to manage the interview process, focus on asking pertinent questions, and observe contextual elements of interest, such as the participant's body language or mannerisms and items of relevance to this research that may have been present in his/her workspace. I took notes during each interview in the unlikely event that the recording failed.

I acknowledged that the presence of an audio recording device may have had an impact on interview responses. One student participant requested that his interview not be audio-taped as the idea made him extremely nervous. Two participants requested that the audio tape be switched off at several points throughout the interview. At no stage has the data shared at points where the audio tape was switched off been incorporated into this thesis.

I had the same experience as Stringer (1997), whereby once I switched the audio tape off at the end of the interview, this often resulted in a more in-depth and reflective response by the participant. With the permission of the participant I would record notes as they continued to talk.

I engaged in ongoing dialogue with 27 participants via telephone or email after the interview as they recalled further relevant information. I also contacted 31 participants post-interview to clarify information or seek further explanations.

Interviews were conducted from June 2007 until November 2009. Forty-nine supervisors and 118 former students were interviewed. This equates to 167 transcripts but only 157 participants in total, as ten people interviewed had been both a student and supervisor of postgraduate geography research in NZ between 1993 and 2008. The significant number of interviews completed allowed “the common properties and general patterns in a population as a whole” (Valentine, 1997, p. 112) to become visible. Interviews ranged from 34 minutes to one hour 48 minutes in duration. All interviews were transcribed in full for analysis.

4.10. Determining distinctive postgraduate research practices and strategic propositions

My research focused on supervisor-student relations within a broader set of postgraduate geography research practices. As a university educator working more closely with postgraduate students than supervisors, my initial consideration of this relation was largely from a student perspective. I was predominantly experienced in providing advice to students regarding productive student-supervisor and student-student relations. As I began to interrogate the supervision literature and engage in dialogues with supervisors, as well as students, I realised that there was a complex web of perspectives and positionalities through which both singular and group student-student, student-supervisor supervisor-student, and supervisor-supervisor relations played out. This complexity is indicated by the highly porous boundaries of each quadrant in Table 4-2. Examples of practices engaged in within each quadrant are also presented in the table. I commenced my empirical work focusing on such supervisor-student relations, later expanding this to supervisor-student-knowledge relations upon rereading the supervision literature and analysing my empirical findings. This re-framing to postgraduate pedagogy (involving supervisor-student-knowledge relations) is discussed in chapter six.

Table 4-2: Four quadrants of the postgraduate pedagogy relation

	Students	Supervisors
Students	<ul style="list-style-type: none"> Collaborate with field work, lab work and data analysis Sharing literature Forming reading, theory and/or writing groups Publish together Organise workshops on topics of shared interest 	<ul style="list-style-type: none"> Bring relevant life and work experiences to the relation Create new networking opportunities Share literature Raise challenging questions Provide content for joint publication
Supervisors	<ul style="list-style-type: none"> Provide literature Share research experiences Critique ideas Discuss writing Assist with fieldwork, lab work and data analysis Encourage (joint) publication 	<ul style="list-style-type: none"> Mentor and support each other Co-supervise Share 'good' practices

Source: Supervision literature and empirical data.

An analysis of supervision literature and individual and group narratives, allowed identification of predominant strategic propositions. Initially, the interview data was analysed to identify these propositions within a period of 'open-coding' (Bailey, White, & Pain, 1999). This involved developing a preliminary list of thematic codes. These codes were derived from relevant literature, the research objectives, and themes that emerged from the interviews themselves. However, the analysis was also flexible enough to account for any new or unanticipated propositions that might emerge. These codes were not formalised and the transcripts were not analysed using any qualitative data analysis software or systematic approach. Instead, the codes were used to identify distinctive practices and strategic propositions that laid the ground-work for discussions that occur within or across the qualitative empirical chapters (six to eight).

Despite pressures from the PBRF for more rapid completion of PhDs, my part-time enrolment status, of eight years, has been beneficial. An extended timeframe has ensured that my research makes original contributions at the frontier of knowledge production both in NZ and internationally. This has been achieved by incorporating a large number of in-depth interviews; visiting geography departments in NZ, Australia and the UK; attending and presenting at several relevant national and international conferences; participating in INLT workshops; and utilising themes from both very recent literature and my primary supervisor's evolving research interests.

Ironically, my lengthy PhD process enabled me to situate my research within relevant contextual events. Recent understandings through the BRCS network of research capacity-capability building provided a material trajectory through which to explore practices. BRCS information has heightened (in some places) an interest in capacity and capability building. Some of this work has been Auckland-based and has come out of PSPE approaches. I have built practice into this research from the outset, but notions of capacity-capability building have been timely additions, allowing forward thinking as my research came to a close. For me professionally, interest in capacity and capability is fantastic, but not foreseen.

4.11. Summary/ conclusion

This chapter has provided an outline of the methodologies employed to describe and explore the extent of the postgraduate geography knowledge production enterprise in NZ and then investigate its associated research practices. My research is firmly embedded within feminist approaches. My supervisors and I have an inherent interest in the content, context and outcomes of this research. Thus, a reflective and reflexive stance on each of our individual and shared trajectories and positionalities in relation to the research was important.

It was necessary to adopt a mixture of methodologies to successfully answer my research questions. Some of these methodologies, such as the analysis of thesis abstracts and acknowledgments, provide an original contribution to existing methodological approaches.

In the following chapter the results of the empirical quantitative data collection and analysis are presented. Then in the subsequent chapters: six through nine, distinctive practices and strategic propositions are discussed from an analysis of the interview transcripts, acknowledgements and other relevant documents.

Chapter 5. Putting NZ postgraduate geography research on the map

Doctoral students - current, prospective or just completed - are the colleagues who ...arguably have the most to contribute to the 'cutting edges' of their fields.

(Kearns & Nichol, 2004, p.1)

In 2004 the *New Zealand Geographer* published a special issue of papers on research undertaken by recently completed, current or soon-to-be doctoral students. This acknowledged that, although unlikely to make it to the IGU conference held on the opposite side of the world that year in Glasgow, doctoral students contributed significantly to frontier knowledge production in their chosen fields of geography. But what was known of the overall extent of postgraduate geography research in NZ, or of the overall contributions that these researchers make to their fields?

5.1. Introduction

This chapter puts recent NZ postgraduate geography – what I coined “NZ’s Postgraduate Geography Knowledge Production Enterprise”- on the map. I detail the number of masters and PhD theses completed; the number of students, supervisors and other support persons involved; and the range of topics covered. The chapter answers questions of how much, when, where, and what kind of, postgraduate geographic knowledge was produced in NZ. Previously, the University of Otago had been the only department to maintain a comprehensive list of its completed postgraduate theses.

5.2. Postgraduate geography knowledge production enterprise

For a nation with a population of around 4 million people and only eight universities, the magnitude of the postgraduate geography knowledge production enterprise in NZ is substantial. From 1993 to 2008, 1208 postgraduate theses were completed in geography in NZ: 1089 masters and 119 PhDs. These accounted for three to four percent of all masters and PhD theses completed in NZ from 1993 to 2008. Table 5-1 shows the total number of

masters and PhD theses completed in geography and all disciplines between 1990⁵⁹ and 2008. The data is separated into masters and PhD and into two time periods, from 1990 to 1999 and 2000 to 2008, to enable multiple comparisons.

In the 1990s masters theses in NZ could be completed in well over 20 disciplines. Therefore the number of geography masters theses completed from 1990 to 1999 represented an over performance when compared to all masters theses completed during that period (5.32%). Given that slightly more than 2 percent of all first year undergraduate university students were enrolled in geography from 2004 to 2009 (section 2.3.4 of chapter two) and that the number of disciplines in which masters theses could be completed diversified after 2000, it could be argued that geography masters thesis completions from 2000 to 2008 signifies an over performance when compared to masters theses completed across all disciplines (3.45%).

As there were fewer than 50 disciplines in which a PhD could be completed in the 1990s in NZ, it seems fair to claim that the geography PhD completions from 1990 to 1999 underperformed compared to all PhDs completed (1.69%). With a diversification of disciplines since 2000, geography's contributions to PhDs completed across all disciplines from 2000-2008 (1.51%) suggests an improvement in performance. It is common for geography PhD theses since 2000 to be interdisciplinary so the number completed is based on what doctoral candidates nominated as their field. The number of PhD completions recorded would be higher if current PhDs supervised by geographers in academic entities and disciplines other than 'geography' were included.

Ten students who completed a masters thesis between 1993 and 2008 also completed a PhD in NZ within this timeframe. Three people who completed a PhD between 1993 and 2008 continued on to supervise both masters and PhD students during that time. Six students enrolled in PhDs in geography after completing a master in another discipline, two in NZ and four overseas. Four students who had completed a master in geography carried on to complete a PhD in another discipline, two within NZ and two overseas. Several

⁵⁹ This data commenced from 1990 rather than 1993 as the thesis completion data for all disciplines gathered by the science subject librarian was already collapsed into summary decades when he received it.

people who completed their masters in geography in NZ subsequently completed a PhD overseas. There is a significant number of students who have completed all of their university degrees in geography at the same university. One supervisor supervised masters and PhD students, without holding his own PhD. One was completing a PhD at one university while supervising masters and PhD students at another. Another completed a PhD at one university while supervising masters and PhD students at that university.

5.3. The supervision load

The 1208 theses completed between 1993 and 2008 were supervised by 228 different supervisors, with very disproportionate supervision workloads among academic staff. As reported in Le Heron et al. (2010), approximately 25 percent of the supervisors supervised around 75 percent of the theses.

Total supervisions well exceeded the total number of theses completed (Table 5-2), as in all PhD theses and some masters theses there were at least two supervisors per thesis. In NZ universities, recent PhD regulations state that a doctoral candidate must have at least two supervisors. In many cases PhD students, in particular, changed their supervisor throughout the process due to: incompatibility issues; supervisors taking sabbatical or other extended leave; or supervisors leaving the university permanently to take up a new position or retire.

Of the 228 supervisors, 147 supervised at least one PhD to completion between 1993 and 2008. Three supervisors held down significant consultancy roles outside the university while employed as an academic. Four PhDs were co-supervised by academics from non-geography disciplines. Six masters or PhD co-supervisors were not employed in a university.

Table 5-1: Geography and total masters and PhD theses completed in NZ, 1990-2008

	Geography Masters completions 1990-1999	Total Masters completions 1990-1999	Geography Ph.D. completions 1990-1999	Total Ph.D. completions 1990-1999	Geography Masters completions 2000-2008	Total Masters completions 2000-2008	Geography Ph.D. completions 2000-2008	Total Ph.D. completions 2000-2008
University of Auckland	235	3332	14	711	125	3957	26	1376
University of Technology		2				745		67
University of Waikato	75	1696	8	108	40	1185	10	440
Massey University	18	1786	4	586	7	2110	3	802
Victoria University of Wellington	58	1128	6	268	102	1696	12	524
University of Canterbury	129	2021	9	492	68	2317	17	730
Lincoln University		669		186		404		278
University of Otago	191	2629	10	668	175	2556	12	1076
Totals	706	13263	51	3019	517	14970	80	5293
Geography as percentage of total	5.32%		1.69%		3.45%		1.51%	
Percentage change from 1990-1999 for total					-27%	0.13%	+57%	0.75%

Source: Data collected from university library and geography department records of geography theses completed; and adapted from Le Heron et al. (2010): a table compiled by Brian Marshall, Science Subject Librarian, University of Auckland of total masters and PhDs completed.

Notes:

1. Universities are ordered from north to south in terms of the location of their main campus.
2. There are no numbers for geography masters or PhD theses completed at either Auckland University of Technology or Lincoln University. This is because there is no specific geography programme at the former and because no geography masters or PhD theses were located via an advanced search of the library catalogue at the latter.

Table 5-2: Numbers of theses supervised by each supervisor, 1993-2008

No of theses supervised	No of supervisors
≥40	4
30-39	9
20-29	8
10-19	7
5-9	63
1-4	137
Total	228

Source: Data obtained from thesis acknowledgements and geography department records

Note: The total number of supervisions exceeds the total number of theses completed because many thesis projects had more than one supervisor.

5.4. Masters thesis completions by decade

There were 706 geography masters theses completed from 1990 to 1999; compared to 517 completed from 2000 to 2008: a 27 percent decrease between the two decades (see Table 5-1). This trend did not reflect the 13 percent overall increase in masters theses completed across all disciplines between these two periods, resulting from ‘qualification inflation’ across many professional disciplines.

The number of geography masters theses completed peaked in 1995, 1997 and 1999 then declined from 2000 to 2002, rising again to a lower peak in 2004 and 2005 before declining to 2008 (Figure 5-1). In the 1990s, many students came back to complete a masters because they could not find suitable paid full-time employment and due to the influential recruitment drives of the various geography departments. The overall decline in numbers of masters thesis completions from the 1990s to the 2000s is probably largely a consequence of changes in the structures of masters degrees from two to one year models. Since the early 2000s more students have been moving directly from an honours year to a PhD (refer to section 3.3.3 in chapter three for a discussion of this).

The number of geography students enrolled in a masters thesis (56) in March 2009 (Table 5-3), together with indications of the number of masters theses being deposited in university library collections, suggested that the 2009 numbers amounted to about a 75 percent increase over those for 2008 (32). With the impact of the global recession on the

job market in NZ, anecdotal evidence indicated further revitalisation of masters student numbers in 2010 and 2011.

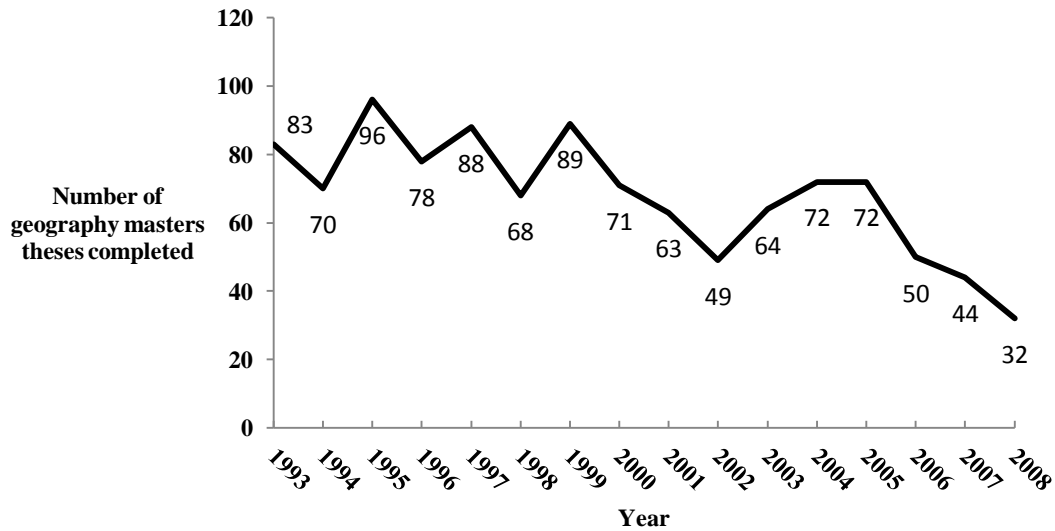


Figure 5-1: Total numbers of geography masters theses completed per year, 1993-2008

Source: Data obtained from university library catalogues and geography department records.

Table 5-3: Postgraduate geography enrolments in NZ universities, Semester One 2009

University	Masters		PhD
	Coursework	Thesis	
Auckland	47	15	35
Waikato	10	7	9
Massey	1	1	5
Victoria	15	13	13
Canterbury	15	10	25
Otago	12	10	16
TOTAL	100	56	103

Source: Le Heron et al. (2010); Survey undertaken March 2009, with total row added.

Notes:

1. Universities are ordered from north to south in terms of the location of their main campus.
2. This table is calibrated on the basis of what doctoral candidates nominated as their field. The number would be higher if current PhDs supervised by geography PhD graduates in academic entities and disciplines other than 'geography' were included.

Figures 5-2 and 5-3 compare the numbers of geography masters theses completed at each university in two-yearly periods for 1993 to 2000 and 2001 to 2008 respectively.

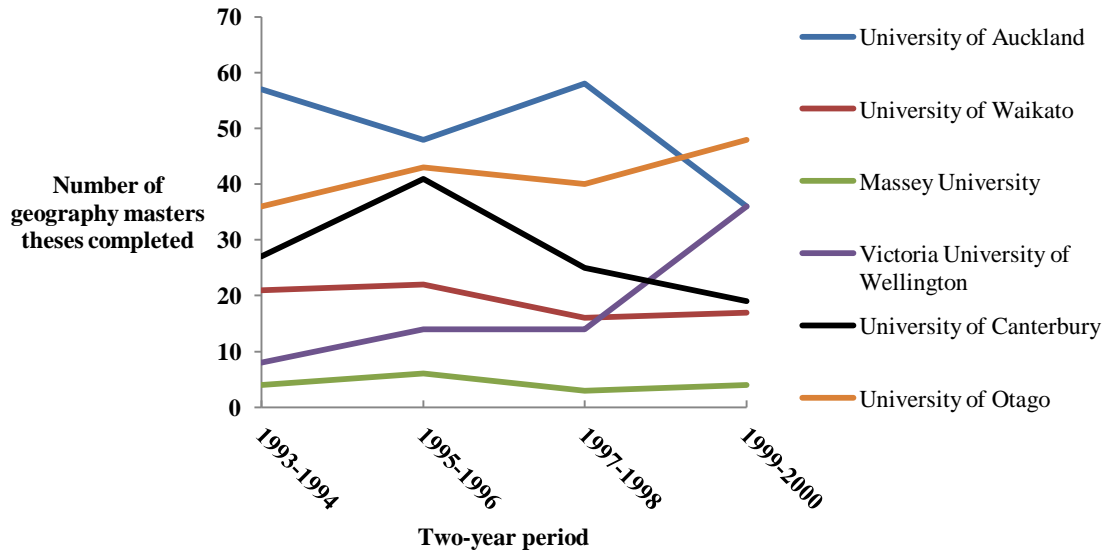


Figure 5-2: Number of geography masters theses completed per two-year period, 1993-2000, by university

Source: Data obtained from university library catalogues and geography department records.

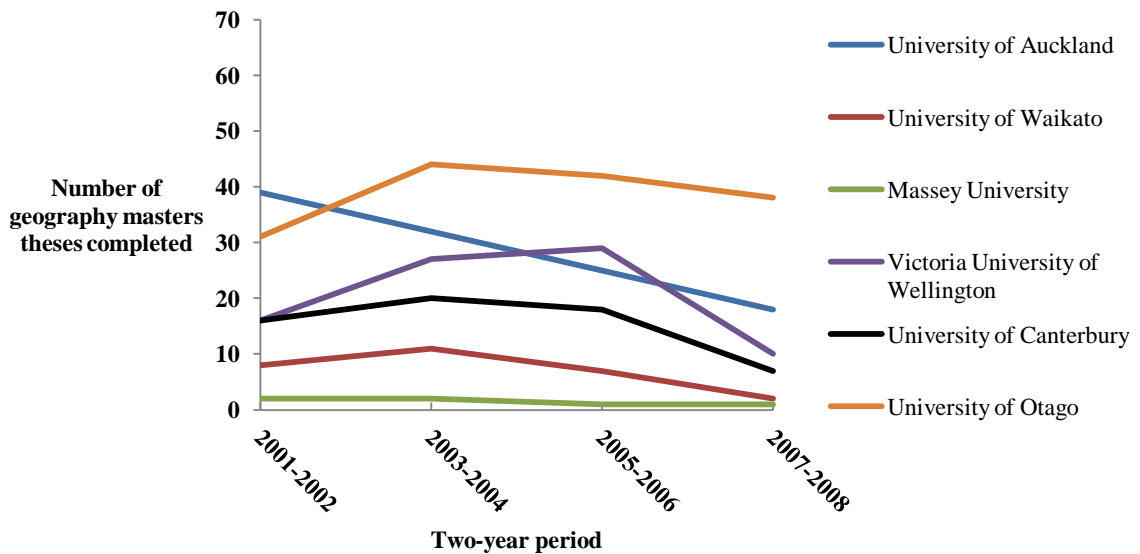


Figure 5-3: Number of geography masters theses completed per two-year period, 2001-2008, by university

Source: Data obtained from university library catalogues and geography department records.

NZ geography, as a discipline with a strong research culture has never awarded master degrees entirely on the successful completion of taught courses (master by coursework). Until shortly after 2000, a NZ master in geography was typically two years duration, involving the completion of the equivalent of one full-time year of taught courses followed by a full-time equivalent, one-year research-based thesis (a master by research). If students exited after the first year they were not generally awarded with any greater qualification than certificates of proficiency. Victoria University of Wellington is one exception where there is a long history of bachelor honour programmes involving completion of a dissertation. The declines evident in both Figure 5-1 and between Figures 5-2 and 5-3 may be largely due to significant changes in the nature of the master qualification in NZ. Soon after 2000, masters qualifications in NZ moved to completion of a one-year full-time equivalent thesis following the successful completion of a one year bachelor honours programme or postgraduate diploma programme. Students who achieved sufficiently high grades in the final year courses of their undergraduate degree were invited to enrol in a fourth honours year. Other students could opt to enrol in a postgraduate diploma.

5.5. PhD thesis completions by decade

As reported in Le Heron et al. (2010) regarding the 1990s situation, “(s)tudents interested in gaining a geography doctorate were actively encouraged to go abroad mainly to the UK, US, Canada and Australia. The reasons for this were many, including a perception that overseas universities were better quality, many staff wished to retain links with institutions they themselves went to and funding for doctoral study was scarce. Few geography academics in New Zealand universities had PhD supervisory or examining experience” (p. 2). After 2000, in many fields, people found the need to undertake higher levels of university qualification to remain competitive in knowledge economies within the global marketplace.

There were 51 geography PhD theses completed in NZ from 1990 to 1999 with 80 completed from 2000 to 2008. These figures represent a 57 percent increase between the two decades (Table 5-1), which lagged behind the 75 percent increase for PhD completions

across all disciplines between these two periods. Since the latter decade includes one less year than the former, we might expect the total to be slightly less.

The total number of PhD geography theses completed was fairly low and stable from 1993 to 1997, rose fairly sharply in 1998 and declined to a low of 3 in 2001. In 2002 numbers increased significantly to 12, declined slightly in 2003 and 2004, rose to 13 in 2005 and declined thereafter to 2008 (Figure 5-4). A significant number of PhDs completed since 2004 were predominantly the result of increased geography PhD completions at the universities of Auckland and Canterbury (Figure 5-6). These increases reflected strategies employed by both the government and universities to increase PhD completion rates including: 25 percent of the PBRF formula being based on masters and doctoral thesis completions; the policy on domestic status for international doctoral students and their immediate families; and timely completion awards.

Increasing PhD numbers in geography in NZ became dependent on international student enrolments. Le Heron et al. (2010), reported that at The University of Auckland “(o)f the 25 full and 10 part time doctoral students in 2009, domestic students moving from an honours or masters to PhD study accounted for 17 percent, domestic mid-career made up 46 per cent and international students amounted to 37 per cent. A similar international percentage holds for the University of Canterbury’s 24 PhDs in 2009” (pp. 4-5).

At the doctoral level it has been common for geography theses to be interdisciplinary, beyond the geography discipline. Therefore, the number of PhD theses completed is based on what doctoral candidates nominated as their field. Therefore, the number of PhD completions recorded in this thesis would be higher if current PhDs supervised by former geography PhD graduates (that is, supervisors who consider themselves geographers) in academic entities and disciplines other than ‘geography’ were included.

Except for five doctor of philosophy degrees awarded at the University of Waikato from 1993 to 2000 (Appendix J Table 2), the PhD has been the only doctoral geography qualification awarded in NZ. As a non-professional discipline, a named or professional

doctorate does not exist, and the possibility of theses with publication has only recently been approved at some universities.

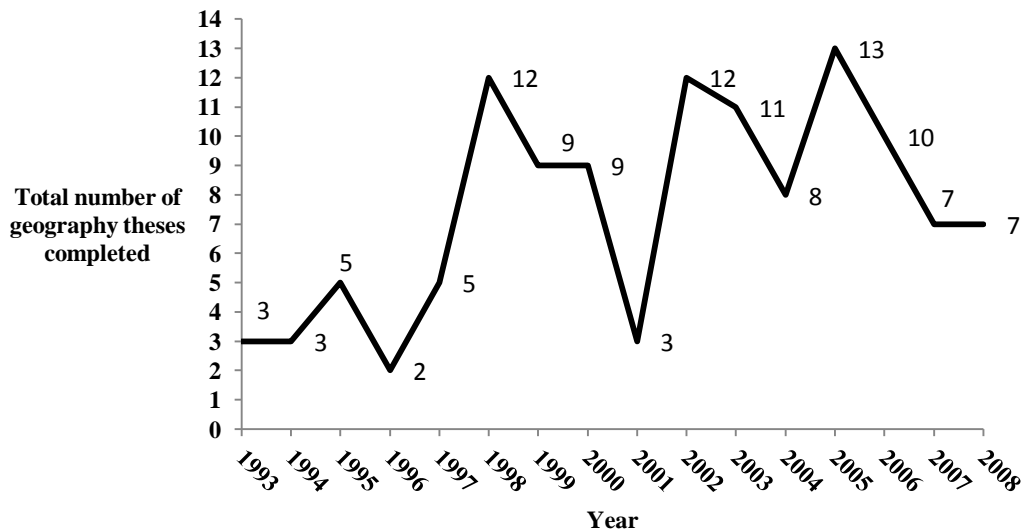


Figure 5-4: Total numbers of geography PhD theses completed per year 1993-2008

Source: Data collected from university library catalogues and geography department records.

Figure 5-4 shows the overall number of geography PhDs completed in NZ per year from 1993 to 2008. NZ geography only began to build up sizeable PhD numbers since about 2002.

There are four distinct peaks evident in the numbers of PhD theses completed. From 1993 to 1999, 39 geography PhDs were completed in NZ. During that time period most candidates went to the UK, the US or Canada to complete a PhD. From 1993 to 1997 there was a push to complete as PhD candidates began to feel the full effects of tuition fees, leading to a peak of completions in 1998. This peak also reflected the poor job market in the mid 1990s. In 2002 and 2005/2006 the peaks of completions reflected a push by supervisors/ departments/universities (particularly at Canterbury and Victoria) to have students complete in time for the first and second rounds of the PBRF in 2002 and 2006 respectively. The 2005 and 2006 figures also indicated the effect of government's policy

giving domestic status to international doctoral students and their immediate families, implemented in 2003, on increasing the number of PhDs completed. There was also a rise in domestic mid-career professionals completing a PhD, as progression in many research organisations became contingent on holding a PhD. There were 102 geography PhD enrolments in NZ in Semester One of 2009 (Table 5-2).

Figures 5-5 and 5-6 compare the numbers of geography PhD theses completed at each university in two-yearly periods for 1993 to 2000 and 2001 to 2008 respectively.

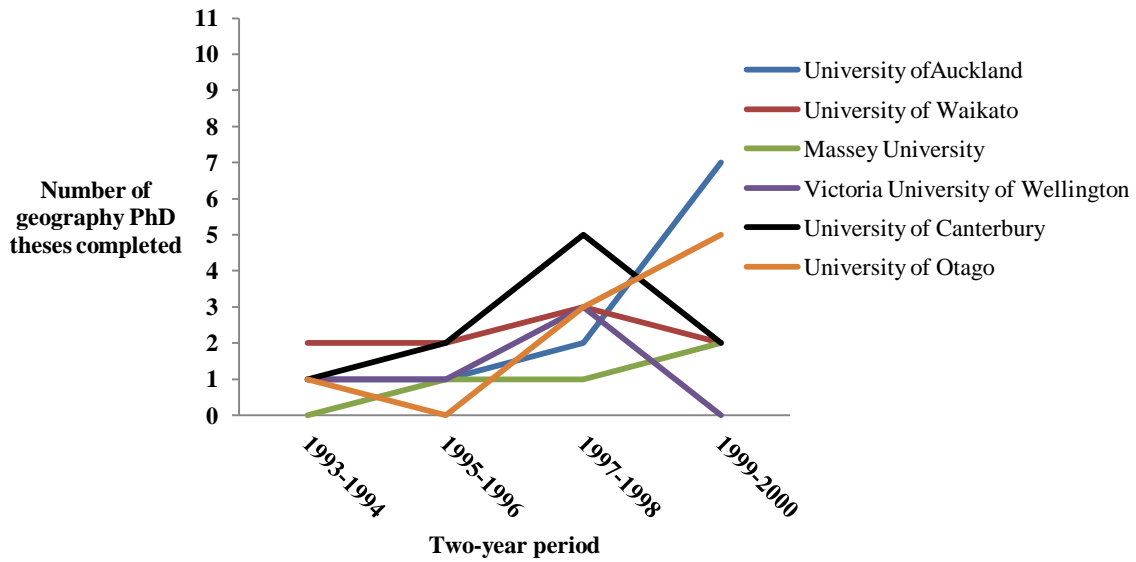


Figure 5-5: Number of geography PhD theses completed per two-year period, 1993-2000, by university

Source: Data collected from university library catalogues and geography department records.

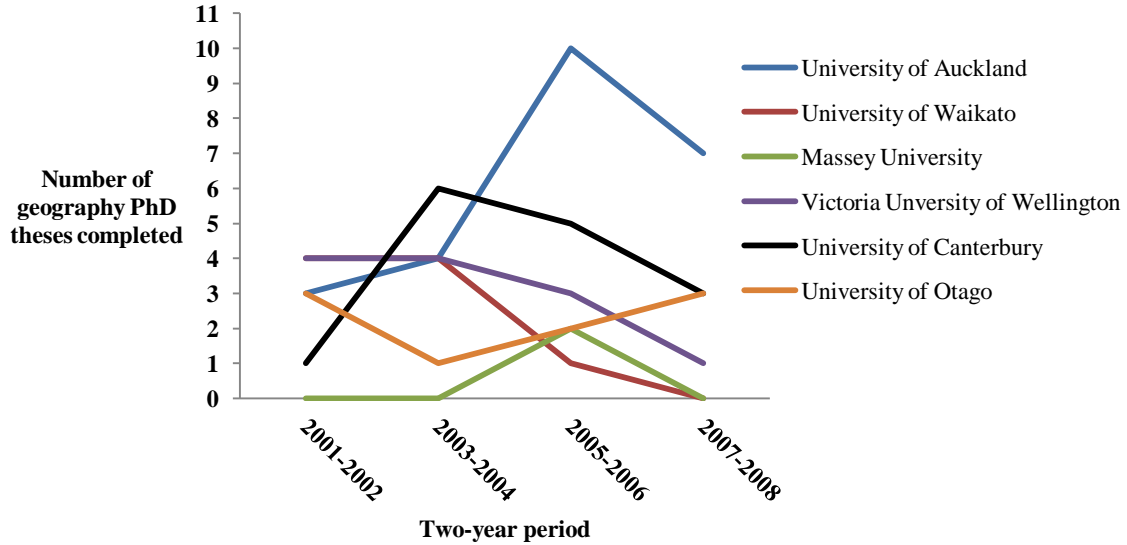


Figure 5-6: Number of geography PhD theses completed per two-year period, 2001-2008, by university

Source: Data collected from university library catalogues and geography department records.

5.6. Masters thesis completions by university

There was great variation in the total number of masters theses completed at each university between 1993 and 2008 (Figure 5-7). The universities of Auckland and Otago overall had the greatest number of masters thesis completions (accounting for 30 percent of the total each). Victoria University of Wellington was the only university to experience an increase in geography masters completed from the 1993-2000 period to 2001-2008 period (Table 5-4). Thus there was an overall decline of nearly one third in the numbers of geography masters theses completed in NZ from the 1993-2000 period (643) to the 2001-2008 period (446).

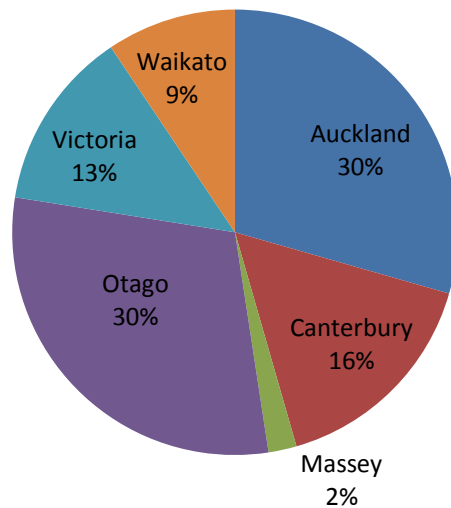


Figure 5-7: Percentage of total geography masters theses (1089) completed by university, 1993-2008

Source: Data collected from university library catalogues and geography department records.

Table 5-4: Number of geography masters theses completed by year by university

Year	Auckland	Waikato	Massey	Victoria	Canterbury	Otago	Total
1993	34	12	4	1	13	19	83
1994	23	9		7	14	17	70
1995	34	11	1	6	24	20	96
1996	14	11	5	8	17	23	78
1997	31	9	2	10	13	23	88
1998	27	7	1	4	12	17	68
1999	25	5	3	16	12	28	89
2000	11	12	1	20	7	20	71
Total 1993-2000	199	76	17	72	112	167	643
2001	19	7		9	8	20	63
2002	20	1	2	7	8	11	49
2003	13	5	2	10	11	23	64
2004	19	6		17	9	21	72
2005	9	6	1	19	10	27	72
2006	16	1		10	8	15	50
2007	15	2	1	5	4	17	44
2008	3			5	3	21	32
Total 2001-2008	114	28	6	82	61	155	446
Total 1993-2008	313	104	23	154	173	322	1089

Source: Data collected from university library catalogues and geography department records.

5.7. PhD thesis completions by university

There was variation in the total number of PhD theses completed at each university between 1993 and 2008 (Figure 5-7). The universities of Auckland overall had the greatest number of PhD thesis completions (accounting for 30 percent of the total).

The total number of geography PhDs completed in NZ increased significantly from the 1993-2000 period (48) to the 2001-2008 period (71) (Table 5-5). This growth was

predominantly due to increases in PhD completions at The University of Auckland, the University of Canterbury and Victoria University of Wellington.

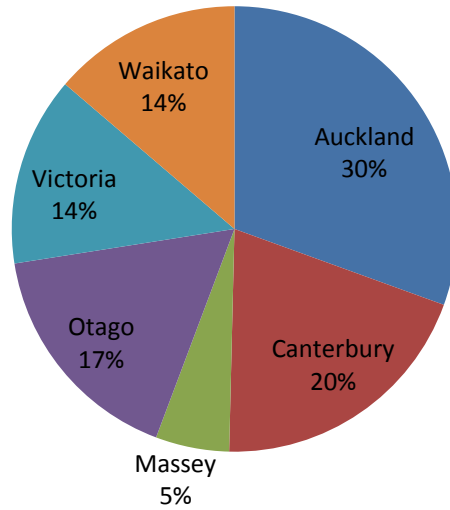


Figure 5-8: Percentage of total geography PhD theses (119) completed by university, 1993-2008

Source: Data collected from university library catalogues and geography department records.

Table 5-5: Number of geography PhD theses completed by year by university

Year	Auckland	Waikato	Massey	Victoria	Canterbury	Otago	Total
1993		2		1			3
1994	1				1	1	3
1995	1	1	1	1	1		5
1996		1			1		2
1997				1	3	1	5
1998	2	3	1	2	2	2	12
1999	5	1	1			2	9
2000	2	1	1		2	3	9
Total 1993-2000	11	9	4	5	10	9	48
2001				1		2	3
2002	3	4		3	1	1	12
2003	2	1		4	4		11
2004	2	3			2	1	8
2005	5		1	2	4	1	13
2006	5	1	1	1	1	1	10
2007	5					2	7
2008	2			1	3	1	7
Total 2001-2008	24	9	2	12	15	9	71
Total 1993-2008	35	18	6	17	25	18	119

Source: Data collected from university library catalogues and geography department records.

5.8. Masters and PhDs theses completions by broad subfield of geography

From an analysis of thesis titles and abstracts, each geography master and PhD thesis completed was classified according to the predominant broad subfield of geography to which it belonged. Figure 5-9 shows the subfields of the geography discipline according to this classification. Separate figures for masters and PhD theses or for the time periods 1993-2000 and 2001-2008 are not provided, as the differences between these were minimal.

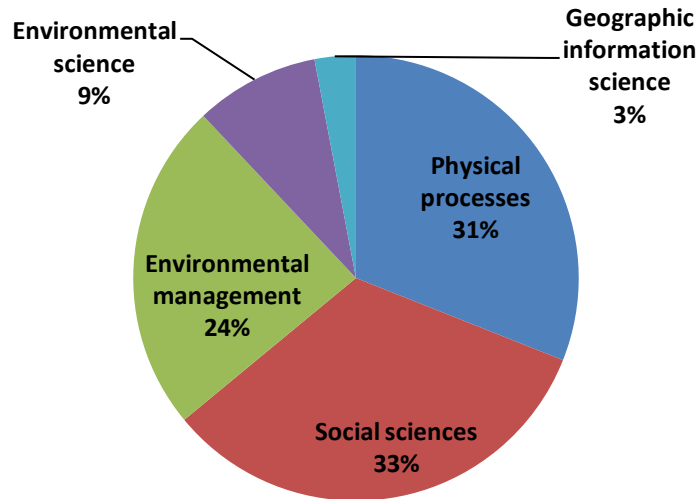


Figure 5-9: Percentage of total geography masters and PhD theses (1208) completed by broad sub-field of geography, 1993-2008⁶⁰

Source: Data collected from university library catalogues and thesis abstracts.

5.9. Master and PhD thesis completions by university and type of degree

5.9.1. The University of Auckland

Between 1993 and 2008, The University of Auckland had the highest total master and PhD thesis completions, with the second largest number of geography masters and the largest number of doctoral thesis completions of all NZ universities. Although geography was in the Faculty of Science, a master degree could be awarded in arts or science, with a greater number of science than arts theses completed. One thesis not granted a PhD was awarded a Master of Philosophy degree in 1993. The number of Master of Arts degrees declined significantly from 91 in the 1993-2000 period to 38 in the 2001-2008 period. Similarly, the number of Master of Science degrees awarded declined substantially from 107 in the 1993-2000 period to 76 in the 2001-2008 period. These declines resulted in an overall decline in

⁶⁰ Each thesis was categorised according to the main broad sub-field to which it might belong. The Environmental management category includes planning theses. The Social sciences category includes human geography and development studies theses. These are relatively arbitrary subdivisions.

masters theses completed, from 199 in the period 1993 to 2000 to 114 from 2001 to 2008. The number of PhDs completed more than doubled from 11 in the period 1993 to 2000 to 24 from 2001 to 2008 (Appendix J Table 1).

5.9.2. University of Waikato

Between 1993 and 2008, the University of Waikato awarded the fourth equal number of PhDs and the second to lowest number of master degrees of all six universities. Geography masters theses were completed in social science or science. Ninety five percent of masters theses completed were within social science. This trend reflected the division of human and physical geography between two distinct faculties and schools with physical geography having far less visibility within its school than that of human geography. The number of Master of Social Science theses declined substantially from the 1993-2000 period (75) to the 2001-2008 period (24). The number of Masters of Science theses completed increased slightly from the 1993-2000 period (one) to the 2001-2003 period (three). Thus, the overall number of masters theses completed declined substantially from the 1993-2000 period (76) to the 2001-2008 period (28). Nine PhDs/ Doctors of Philosophy were completed in each of the 1993-2000 and 2001-2008 periods. One Master of Philosophy was awarded in 2001 instead of a PhD (Appendix J Table 2).

5.9.3. Massey University

From 1993 to 2008 Massey University had the lowest number of both masters and PhD theses completed in geography, reflecting the small scale of academic geography activities at this university. Overall numbers of masters theses completed in arts and science were the same. The vast majority of Master of Arts theses were completed from 1993 to 2000 (seven) with only one completed from 2001 to 2008. In contrast, the vast majority of Master of Science theses were completed from 2001 to 2008 (seven) with only one completed from 1993 to 2000. In the 1990s, six masters theses were also completed toward a master of philosophy, and one as a master of geography in 1993. The overall number of masters theses completed increased slightly from the period 1993 to 2000 (17) to the period

2001 to 2008 (23). The number of PhDs completed halved from four in the period 1993-2000 to two in the period 2001-2008. (Appendix J Table 3)

5.9.4. Victoria University of Wellington

Between 1993 and 2008, Victoria University of Wellington awarded the fourth highest number of geography masters theses and the fourth equal highest number of geography PhDs. Geography masters theses in environmental science, development studies, arts and science. One Master of Conservation Studies thesis was completed in 1998. The greatest number of masters theses completed was in science, followed by environmental science and then arts and development studies. The number of Master of Environmental Science theses completed from 2001 to 2008 (23) was slightly greater than the number completed from 1993 to 2000 (17). The number of Master of Development Studies theses completed between 2001 and 2008 (16) was significantly greater than the two completed from 1993 to 2000. The number of Master of Arts theses completed declined significantly from the 1993-2000 (15) to the 2001-2008 (five) time periods. The number of Master of Science theses completed increased by just over 100 percent from the 1993-2000 (37) to the 2001-2008 (75) time periods. The overall number of masters theses completed increased from 72 during the 1993-2000 time period to 82 in the 2001-2008 time period. There was an over 100 percent increase in PhD completions from five completed in the 1993-2000 time period to 12 in the 2001-2008 time period (Appendix J Table 4).

5.9.5. University of Canterbury

From 1993 to 2008, the University of Canterbury had the third highest geography masters thesis completion rate and the second highest geography PhD thesis completion rate. Masters theses were completed in both arts and science, despite the geography department being located within the University's science college. More masters theses were completed in science than in arts, with nine masters theses also completed in environmental science between 1994 and 2005. There was about a 50 percent decline in the overall number of masters theses completed, across environmental science, arts and science, during the 2001-2008 time period (61) compared to those in the 1993-2000 time period (112). In contrast,

PhD thesis completion rates increased by 50 percent from ten completed during the 1993-2000 time period to 15 in the 2001-2008 time period (Appendix J Table 5).

5.9.6. University of Otago

From 1993 to 2008, the University of Otago had the highest number of geography masters thesis completions and the third highest number of geography PhD thesis completions. While masters theses could be completed in arts, science or planning, the majority of masters theses were completed in planning. Numbers of masters theses completed under science were often greater than those completed in arts, despite the geography department being positioned within the arts faculty at this university. The number of masters theses completed in planning increased slightly from the 1993-2001 (93) to the 2001-2008 (106) time periods. The numbers of Master of Arts and Master of Science theses completed both declined from the 1993-2000 to the 2001-2008 time periods. Therefore, overall there was a slight decline in the number of masters theses completed from 2001 to 2008 (155) compared to those completed from 1993 to 2000 (167). Numbers of PhD theses completed were the same in both the 1993-2000 (nine) and 2001-2008 (nine) time periods (Appendix J Table 6).

5.10. Taking stock of the significant NZ postgraduate geography knowledge production space

Prior to my PhD, NZ postgraduate geography research had never been comprehensively ‘put on the map’. Thus, I explored relevant literature, collected and analysed academic and non-academic data and information and examined the scale and character of postgraduate geography research, to frame up a set of postgraduate geography practices and experiences. Numbers presented in this chapter revealed that a significant amount of postgraduate geography research, involving substantial student and supervisor work, continued in NZ from 1993 to 2008.

Chapter six unpacks supervision practices to establish why and how postgraduate geography remained a substantial knowledge production enterprise. I begin by framing

postgraduate geography practices within broader notions of supervision and postgraduate pedagogy. Then NZ geography's distinctive supervision practices are presented, from which strategic propositions are made.

Supporting evidence derived from conclusions based on NZ geography literature, presented in both chapter two and earlier in this chapter, as well as evidence from the empirical data gathered as part of this research, are used to frame up questions about postgraduate geography research experiences and practices that are addressed in chapters six to nine. It is also pertinent to consult the related teaching and learning literature of the last two decades, corresponding to the time period of this research, to provide some broader preliminary answers to these questions beyond the geography discipline.

Chapter 6. Co-learning and other distinctive postgraduate geography pedagogical practices in this research

Traditionally conducted behind closed doors in spaces remote from undergraduate teaching, the intensity of the interpersonal relations of much postgraduate pedagogy is presumed but uninterrogated. (McWilliam & Palmer, 1995, p. 32)

Good supervision is central to successful graduate research, yet it is a pedagogy that is poorly understood. This may be because of the presumed privacy and 'uniqueness' of each supervision (Bartlett and Mercer 2000), but, also, in the literature, it is undertheorised (Green and Lee 1995; McWilliam and Palmer 1995). (Grant, 2010, p. 88)

6.1. Supervisor – student - knowledge relations as exemplary of 'thinking and doing like a geographer'

Postgraduate supervision and research training have continued to be core academic activities at most universities throughout the world. Nevertheless, the above quotes exemplify that postgraduate research supervision, as pedagogy largely performed 'behind closed doors', has continued to be a privileged private pedagogy that is not well understood, interrogated or theorised. It remains unclear how and why supervision is successful, when it is, or what successful supervision looks like (Grant, 2005; Green, 2005; Green & Lee, 1995; Ward & West, 2008). Similar to what Johnson, Lee, and Green (2000) claimed of the PhD in Australia, postgraduate pedagogic practices in NZ have long been privileged and remained largely unexamined. This is an important justification for why this thesis focused on postgraduate pedagogical practices in NZ.

Halse and Malfroy (2010) pointed out that in the contemporary, competitive, higher education environment, with its associated accountability and quality assurance, there is a need as never before to determine and clearly articulate what good postgraduate pedagogical practices look like and to theorise this work. These authors proposed theorising (doctoral) supervision as professional work. Manathunga (2005a) described

research supervision training and development for supervisors as “turning the light on a private space” (p. 17).

Good supervision is widely considered one of the most important, if not key, factors, in successful completion of postgraduate research (Acker, 2001; Grant, 2005; Middleton, 2001; Phillips & Pugh, 1994; Ward & West, 2008). However, supervisors in the 1990s were often poorly experienced, except for usually having been supervised for the completion of their own doctoral studies, with limited or no formal training. The importance of the supervision relationship to completion of postgraduate research was evident in my research where the entirety of one master thesis acknowledgement read ‘(t)o my supervisors⁶¹ ...for their inestimable advice and support’.

Supervision has always been concerned with knowledge production and dissemination, not only in terms of a good thesis (Grant, 2010), but also through seminar and conference presentations and publications. Supervision is equally about research training and transferable skills development to transform students into in(ter)dependent researchers for both academic and non-academic trajectories (Boud & Lee, 2009; Grant, 2010). In very recent years, supervision has focused on building research capacity and capability in individuals and groups.

Furthermore, against what standards do we measure successful supervision? Supervision relationships are distinctly flexible and individualised, making it challenging to capture let alone theorise their dynamics. Only a small number of studies have attempted to uncover pedagogical dynamics between supervisor and student (Grant, 2005; Knowles, 1999). However, feminism and post-structuralism have highlighted the inability of supervisors to develop unique apolitical relationships with each student, when those agents all work within universities and other political institutions with powerful ideologies (Bartlett & Mercer, 1997).

Nevertheless, with increased focus on postgraduate research, there are now various collections of general principles to guide postgraduate supervisors (Brew & Peseta, 2004;

⁶¹ The supervisors’ names have been removed to retain anonymity.

James & Baldwin, 1999; Sinclair, 2004). Discourses of postgraduate research supervision have become readily available at various sites: the rapidly expanding body of international scholarly teaching and learning literature on supervision; local institutional policies and practices; training courses; ‘self-help’ manuals; and supervisor-student interactions/relations.

Academics often undertook their first supervision with a limited repertoire of effective practices. Supervisors’ initial supervision practices were often a reflection of, or a reaction to their own experiences of being supervised: both positive and negative. Since 2000 programmes have emerged within every university for supervisor development and training (Pearson & Brew, 2002). At most universities, training for new supervisors became mandatory. Ongoing critical reflection by supervisors on their practices is encouraged (Pearson & Kayrooz, 2004). Manathunga, Peseta and McCormack (2010) demonstrated how learning circles facilitate sharing of effective practices among supervisors.

My research focused on distinctive postgraduate geography pedagogical practices in NZ as an object of investigation to provide exemplars of ‘thinking and doing like a geographer’. I present changing understandings of developments in postgraduate research supervision practices. I begin by defining traditional understandings of supervisors and students as separate teacher and / or learner actors respectively. Next I discuss how supervision has been conceptualised as a dyadic student-supervisor relation. I then argue for the need to re-frame the supervision relation as postgraduate pedagogy and propose a definition of postgraduate geography pedagogy that suitably captures and draws on geography’s distinctive postgraduate pedagogical practices. Thirdly I define good postgraduate pedagogical practices as proposed in the higher education literature and university supervision guidelines or policies, to provide a framework against which I position geography’s distinctive practices. I focus on co-learning and co-production as sets of distinctive practices that have emerged since 2000. Finally I raise two strategic propositions regarding the work arising from the assemblage of postgraduate geography pedagogical practices. These propositions are further discussed in chapters seven and eight.

6.2. Supervisors as teachers of postgraduate students

Supervision was traditionally viewed as the sole formal method of teaching postgraduate students in the completion of masters and PhD theses. Connell (1985) described supervision as “the most advanced level of teaching in our education system [and] certainly one of the most complex and problematic” (p. 38). At that time, to view supervision as teaching was a radical move as many academics thought of, and reported supervision as a component of their research activities. Supervision’s complex positioning within universities has been evident in the continued discrepancy in NZ where supervision is reported as teaching in performance reviews and as a research contribution in PBRF assessments.

6.2.1. Dyadic supervisor - student relation

Postgraduate supervision was conceptualised by other higher educationalists as a dyadic relationship between single student and one or more supervisors to emphasise its relational aspect between teacher(s) and learner. Such models of postgraduate supervision centred on a hierarchical metaphor of power: transference or transmission model (Bartlett & Mercer, 2000). Supervision was “an individualised working relationship between the student and the ‘expert’ researcher (or two), a relationship that engages student and supervisor/s in productive power relations” (Grant, 2010, p. 88).

Within the context of such hierarchical models of supervision, to supervise meant “to direct or oversee the performance or operation...[and a supervisor was defined as]...a person who...supervises; (in some British universities) a tutor supervising the work, esp[ecially] research work, of a student” (Collins, 2003, p. 1619). Within these broad definitions, the role of a research supervisor and the nature of the supervision relationship are interpreted in very diverse and different ways. Metaphors have been widely employed in an attempt to understand the complexity and to provide models for supervision relations.

Table 6-1 shows various ways Brown and Atkins (1988) identified possible roles of supervisor and student within a supervision relation. I have separated the metaphors into

hierarchical and non-hierarchical to denote that the majority of their metaphors supported the tendency for supervision to be conceived as a power relation.

Table 6-1: Postgraduate pedagogy metaphors

Hierarchical metaphors	Non-hierarchical metaphors
Director and follower	Colleague and colleague
Master and servant	Friend and friend
Guru and disciple	
Teacher and pupil	
Expert and novice	
Project manager and team worker	
Editor and author	
Counsellor and client	
Senior partner and junior professional	
Guide and explorer	
Doctor and patient	
Auditor and client	

Source: Adapted from Brown and Atkins (1988).

Note: Metaphors were categorised by me into hierarchical and non-hierarchical respectively.

Other hierarchical metaphors saw supervisor and student relating as parent and child (Conrad, 2008); older and younger sister (Bartlett & Mercer, 2000); and master and slave (Grant, 2008). Supervisors were also perceived as guardians of standards (Cryer, 1997); gate-keepers (Lee, Anne M., 2007, 2008); established authorities (Zuber-Skerritt & Ryan, 1994); mentors (Shannon, 1995; Zuber-Skerritt & Ryan, 1994); research role models (Wisker & Brown, 2001); managers (Vilkinas, 2002); and coaches (Rochford, 2003).

Where supervision relations are viewed as power relations associated with notions of paternalism, such as master-disciple narratives, insecurity, isolation, identity, individualism and struggle for independence are implied. Here supervisors and students are seen as differentially constructed, with students having less power than supervisors and often being poorly equipped to participate in supervision (Grant, 2010). Such power relations are seen to disempower and marginalise students (Mackinnon, 2004). Grant (2003, 2010) advised supervisors how to negotiate the 'layered' power and social relations of supervision among the supervisor, student and thesis agencies. With increased diversity of postgraduate students recent advice has focused on supervising international (Rizvi, 2010) and part-time

(Evans, 2010a; Watts, 2010) students. With the globalising knowledge economy, postgraduate students are being educated for the global market place (Seddon, 2010) and increasingly doctoral research is being undertaken for careers beyond the academy (Evans, 2010b).

One supervisor commented: *'I don't believe in the laissez-faire model...don't believe in the Master-disciple model...I think that that is dated...gendered...and I think actually really unhealthy and lots of people who have gone through that experience...will talk about how difficult that actually is and how alone they felt through that process'*.

According to Grant (1999):

The challenge, in Sofoulis⁶² view, is that supervising does not "exclude domains of mastery, expertise, authority, or discipleship, for the supervisor needs to find a balance between mastery and mothering, authority and collaboration, to properly fulfil their role as mentor or guiding expert" (ibid), but that this must be done in a way which fosters the creative expression and transformation of the subjectivity of the student. She suggests a definition of supervision as "the creation of a space in which two subjectivities/intellects must necessarily interact so that the project of one may be brought to completion" with the goal of assisting the student "to discover [her] 'own standpoint', to gain recognition for [her] 'own work', and to find ways of expressing it in [her] 'own voice'. (p. 11)

The supervision relationship has been debated, with some supervisors recognising nothing more than a *quasi*- contractual relationship and others who believe that it is also a personal relationship. Grant and Graham (1994) noted that "university staff...at times vehemently contest the use of that word...[relationship]...in connection with supervision, insisting that it is an academic matter only" (p. 166). Arguably, supervision is necessarily different to other higher education teaching and learning in its uniquely "intense and negotiated character, as well as in its requirements for a blend of pedagogical and personal relationship skills" (Grant, 2010, p. 88).

⁶² In October 2011 Zoe Sofoulis was a Research and National Water Commission Fellow in the Centre for Cultural Research at the University of Western Sydney, Australia. For further information on Sofoulis' supervision work visit:

http://www.uws.edu.au/centre_for_cultural_research/ccr/people/researchers/dr_zoe_sofoulis.

Supervision guidelines provided by universities are generally broad leaving suggested practices open to varying interpretations. Commonly students and supervisors respond differently when taking up their position as student or supervisor. Each supervisor also interprets his/her role differently. Student expectations of a supervisor's duties also vary. Furthermore, students and supervisors often have differing beliefs about how the other position ought to be taken up.

Supervision discourses in the literature exhibit much diversity. Grant (2005) identified multiple competing discourses of supervision. The four most powerful discourses were: traditional-academic/ liberal (focused on product); psychological (based on trust); techno-scientific (training for practice); and neo-liberal (student as consumer). More recently Anne Lee (2008) established five broad concepts of doctoral supervision: functional (project management); enculturation (membership of disciplinary community; critical thinking (question and analyse work); emancipation (question and develop themselves); and developing a quality relationship (student is enthused, inspired and cared for).

One limitation imposed by framing supervision as a dyadic relation between teacher and learner is that such a relation assumes that the supervisor and student are the only agents involved in the relation. Another misconception is that the student is the only agent changed during the relationship, whereas in reality the supervisor also changes and the student possesses the power to act. So, how might supervision be re-framed to account for the instabilities and complexities highlighted by Grant (1999)?

6.2.2. Re-framing the supervisor – student relation as postgraduate pedagogy

Supervision is widely recognised as being complex and multidimensional. Ballard and Clanchy (1993) described research supervision as a blend of academic expertise and the skillful management of personal and professional relations. The Council of Graduate Schools (1990) suggested that there are two major aspects to the supervision of graduate research students: enabling creativity and ensuring that effective progress is made.

Aspland, Edwards, O’Leary, and Ryan (1999) described:

(1) the importance of relational aspects of supervision as the student communicates over the long term with one or more supervisors; (2) the importance of systematic feedback, monitoring, and evaluation to the supervisory process; and (3) the lack of strategies to facilitate this evaluative feedback process. (p. 127)

Given that supervision is complex, I argue a more appropriate and productive way to understand postgraduate supervision is as pedagogy. The postgraduate research supervision relation has long been considered a pedagogic relation, and recently supervision has been framed as pedagogic practice. While many journal articles have been premised on supervision as pedagogy, most advice books for supervisors and/or students have focused on methodology training and “tips and tricks” (Walker & Thomson, 2010a, p. 2) for thesis writing.

This notion of supervision as pedagogy (Grant, 1999; Lee & Green, 2009; Walker & Thomson, 2010b; Ward & West, 2008) is commonly based on Lusted’s (1986) radical education theory definition of pedagogy. Lusted (1986) saw pedagogy as a triadic relation among learner, teacher and the knowledge being produced. Each of these agents: learner, teacher and knowledge is an active, interactive, changing and changeable agency, each equally valuable, and each transformed throughout the pedagogical processes.

Lusted (1986) viewed:

*(pedagogy) ...important since, as a concept, it draws attention to the **process**⁶³ through which knowledge is produced. Pedagogy addresses the ‘how’ questions involved not only in the transmission of knowledge but also in its production. Indeed, it enables us to question the validity of separating these activities so easily by asking under what conditions and through what means we ‘come to know’. (pp. 2-3)*

Such “institutionalised pedagogical relations between teacher, student and knowledge are always power relations that are productive and inescapable” (Grant, 1999, p. 7). They generate supervisor, student, thesis and increasingly publications. As institutionalised pedagogy, supervision “imposes norms for capacities and conduct, ... is organised around

⁶³ This word was italicised in the original text.

techniques of moral supervision,...[and]...embodies these techniques in unequal relations between the differentially constructed agents of teacher and student” (Gore, 1993, p. 125).

Further, Walker & Thomson (2010b) stated:

(w)e understand that the concept of pedagogy/ies reads differently in different situational and timebound locations and disciplinary traditions. However, we see it as a preferable notion to that of supervision, which in managerial times has an unfortunate resonance with technical processes of surveillance and audit. It is also preferable in our view to the terminology of teaching and learning, which omits substantive questions of knowledge and context altogether in favour of a strongly process orientation.

We understand pedagogy to refer to both theories and practices of knowledge production. (p. xv)

Postgraduate supervision practices are somewhat unique in their position at the nexus of teaching, learning and research, providing the link among these three activities (Council on Higher Education, 2003). In postgraduate geography research, supervisors and students are each simultaneously teachers, learners and researchers.

I extend the triadic concept of pedagogy to consider contextual influences (Cumming, 2010a) in adequately explaining postgraduate geography’s distinctive practices. Such a pedagogical view supports Le Heron’s (2009) claim concerning the importance of ‘rooms and moments’ in performativity. The spaces in and across which postgraduate geography knowledge production occurred were arguably significant in all practices performed. Similarly, the times when knowledge was generated influenced practices.

Cumming (2010b) framed postgraduate supervision as “a holistic conception of evolving practices and arrangements” (p. 25). Some recent supervision metaphors have given meaning and structure to such complex postgraduate pedagogical practices, to exemplify the collegial nature of the relations based on working together, rather than focusing on the identities or roles of the individual agents involved. These metaphors include journey (Brew, 2001), bushwalking, cooking in the kitchen, digging in the garden (Bartlett & Mercer, 2000) and a great expedition (Tammen, n.d.). Other contemporary supervision

metaphors align to notions of joint or team supervision and research communities.

According to Conrad (2008, para. 1):

we need to consider reconceptualising supervision in terms of the extended family. The relationship between a student and individual supervisors will always be crucial, but studies have identified as critical to RHD [Research Higher Degree] student success a thriving research community.

Moss (2009) acknowledged that “(r)conceptualising the relationship in non-hierarchical terms opens up possibilities for configuring positionings within the supervisory relationship differently” (p. 71).

I employ the terms ‘postgraduate pedagogy’ or ‘supervisor-student-knowledge relation’ rather than ‘student-supervisor relation’. This move acknowledges the complexity of the relation that includes plural knowledges as well as plural supervisors and students within one or more research communities, often traversing multiple disciplines and sites, spaces and time periods.

6.2.3. Emergence of postgraduate pedagogical practices in the literature

After completing my empirical fieldwork I reread the postgraduate and doctoral supervision body of literature and university supervision guidelines with a new set of questions in mind. This literature, especially concerning doctoral research, substantially burgeoned throughout the first decade of the 21st century. In particular, I sought ‘good practices’ regarding postgraduate pedagogy.

James and Baldwin (1999) compiled a list of the 11 practices of highly effective postgraduate supervisors (Table 6-2). Usefully, these academics arranged the practices according to the beginning, middle and end stages of the research process. These authors expressed the supervision relation as a partnership. Interestingly a corresponding set of practices for postgraduate students was not provided.

Table 6-2: Eleven practices of effective postgraduate supervisors

<p>Foundations:</p> <ol style="list-style-type: none"> 1. Ensure the partnership is right for the project. 2. Get to know students and carefully assess their needs. 3. Establish reasonable, agreed expectations. 4. Work with students to establish a strong conceptual structure and research plan.
<p>Momentum:</p> <ol style="list-style-type: none"> 5. Encourage students to write early and often. 6. Initiate regular contact and provide high quality feedback. 7. Get students involved in the life of the department. 8. Inspire and motivate. 9. Help if academic and personal crises crop up.
<p>Final stages:</p> <ol style="list-style-type: none"> 10. Take an active interest in students' future careers. 11. Carefully monitor the final production and presentation of the research.

Source: James & Baldwin (1999).

Brew and Peseta (2004) provided 10 criteria for good supervision practice (Table 6-3). These criteria exemplify the changes to the contemporary higher education environment such as universities' strategic plans for increasing postgraduate numbers and timely completions, and encourage supervisors to make use of the burgeoning body of postgraduate supervision literature to reflect on the effectiveness of their postgraduate pedagogical practices.

Table 6-3: Ten criteria for good supervision practice

<ol style="list-style-type: none"> 1. Interest in, and enthusiasm for, the supervision of postgraduate research students. 2. Appreciation of a range of good practice approaches to supervision and an understanding of what constitutes a productive research learning environment. 3. Establishment, for and with students, of clear goals and expectations in the light of up-to-date knowledge of the University's requirements. 4. Productive and regular meetings held with students which provide them with sympathetic, responsive and effective academic, professional and personal support and guidance. 5. Careful management of the supervisory process to achieve timely and successful completion of the thesis. 6. Development of a partnership with students which takes account of the need to assist them to develop a range of generic attributes and to introduce them to the research community. 7. Open communication established with students with timely feedback, which is both supportive and challenging, given on progress. 8. Utilization of a repertoire of supervisory strategies to take account of the differing and diverse needs of individual students including assisting students from equity groups and those off campus to achieve success in their study. 9. Evidence of systematic evaluation of competency in supervisory skills and of critical reflection and engagement with salient and emergent issues in their own field of research, to improve supervisory practice. 10. Use, by the supervisor, of the literature on the scholarship of supervision pedagogy, and of relevant policy issues in research education to enhance the postgraduate research experience of their students.

Source: Brew & Peseta (2004).

The University of Otago's website, summarising Janssen's (2005) research, lists the ten most important practices of the ideal graduate research supervisor. At the same time, the

ten most substantial problems faced by students in supervision that Janssen’s research uncovered are presented. These are based on forty postgraduate students’ perspectives of quality supervision. Such a presentation of practices and problems could, perhaps unintentionally, imply that the supervisors are solely responsible for the effectiveness of practices they engage in with students.

Table 6-4: Ideal supervision practices and supervision problems

The 10 most important practices of the ideal graduate research supervisor The supervisor	The 10 most substantial practice-related problems faced by students in graduate research supervision The supervisor....
<ol style="list-style-type: none"> 1. Provides academic and personal support 2. Ensures his/her availability to students 3. Demonstrates interest and enthusiasm 4. Has knowledge and expertise in the field surrounding the research topic 5. Considers the student’s career 6. Is a good communicator 7. Provides constructive feedback 8. Provides direction and structure 9. Is approachable and develops good rapport with the student 10. Is experienced and interested in supervision 	<ol style="list-style-type: none"> 1. Is too busy to be effective in his/her role 2. Provides poor feedback 3. Lacks commitment and interest 4. Does not help to resolve tensions or conflicting perspectives from within the supervisory panel 5. Is a poor communicator and takes no responsibility for resolving disagreements about the project 6. Allows conflicting or unrealistic expectations within the supervision relation to persist 7. Is selfish and disrespectful to the student 8. Is not up-to-date with the field 9. Lacks experience in research and / or supervision 10. Does not address personality clashes

Source: Adapted from Janssen (2005).

The literature and university policies often, perhaps unintentionally, imply that effective postgraduate pedagogy is predominantly the responsibility of the supervisor. For instance, the senate guidelines on thesis supervision from The University of Auckland Board of Graduate Studies (2010) outlined 15 responsibilities of supervisors and only 5 of students.

Regarding supervision’s complexity, Grant (1999) claimed:

(T)here is much more to it than institutional guidelines would indicate... (T)he instabilities and complexities of postgraduate supervision (including issues of pedagogy, power relations, difference and desire)... suggest the metaphor of supervision as being like walking on a rickety bridge, a process which requires both a situational attentiveness and a flexible posture. (p. 1)

6.2.4. Intimating postgraduate geography pedagogy from positive NZ geography characteristics

Table 6-5 depicts the key positive characteristics of contemporary NZ geography as evidenced through my empirical observations, personal involvement, or critique of NZ geography literature. From these characteristics several questions emerge as a way to frame the distinctive pedagogical practices of postgraduate geography in NZ.

Table 6-5: Observations and questions surmising the nature of postgraduate geography pedagogical practices

Distinctive NZ geography characteristic	Empirical/ literature observation or comment	Question that emerged regarding postgraduate pedagogical practices
Sense of community in geography departments	Thesis acknowledgements implied a sense of community in many departments. Stuart McLean (MSc, University of Otago) ⁶⁴ stated "I decided to go on and complete postgraduate work ... because I enjoyed working with the staff in the department, not to mention the other students". Significant numbers of postgraduate students in some departments.	Was there a sense of community in each department?
Research-teaching nexus	Spronken-Smith, Jennings, Robertson, Mein Smith, Vincent, & Wake (2000) established that research and teaching were inextricably linked within geography at the University of Canterbury. All academics used their research in teaching. Often teaching exposed "gaps" in knowledge which stimulated them to do research.	What evidence was there of research-informed pedagogical practices?
Fieldwork	Fieldwork has long been an integral component of teaching and learning practice in geography (e.g. Fuller, 2006; Fuller, Rawlinson, & Bevan, 2000; Scott, Fuller, & Gaskin, 2006; Stirling, 2003, 2006, 2008), and see Le Heron and Lewis (2011) for an interpretation of the value of fieldwork. Richard Nottage (MSc, University of Otago) ⁶⁵ "was attracted by the chance to ... take part in the field work that geography degrees are renowned for".	How were postgraduate geography pedagogical practices related to fieldwork?
Geography's inherent interdisciplinarity/transdisciplinarity	Schoenberger (2001) described the inherent interdisciplinarity of geography. According to Brierley (2009) "(o)ur position within Science and/or Arts faculties in universities emphasizes our capacity to straddle debates on people/environment or society/nature issues. This transdisciplinary space is the area in which most environmental issues must be discussed if they are to be successfully resolved" (p.3).	Is the tradition of inherent interdisciplinarity evident in postgraduate geography pedagogical practices? Are endeavours that focus on human-environment relations evident within postgraduate geography pedagogical practices?

⁶⁴ This quote was retrieved in 2006 from:

<http://massacre.otago.ac.nz/static/Geography/People/StudentProfiles/StuartMcLean.html>.

⁶⁵ This quote was retrieved in 2006 from:

<http://massacre.otago.ac.nz/static/Geography/People/StudentProfiles/RichardNottage.html>.

Distinctive NZ geography characteristic	Empirical/ literature observation or comment	Question that emerged regarding postgraduate pedagogical practices
Multiple geographic knowledges at multiple sites	Thesis titles and abstracts indicated a diversity of geography knowledges produced. Researchers have a social and an ethical responsibility to convey their findings to as broad an audience as possible. Geographers have an enormous amount to contribute in the management of environmental issues. Richard Seymour (MA, University of Otago) ⁶⁶ said "Geography's great, because it allows you to focus on just about anything you could think of within social science ...the wide range of studies undertaken by students and staff alike means that there's always something interesting happening".	How did different geography disciplinary knowledges, and the application of such knowledges beyond the geography discipline, influence postgraduate geography pedagogical practices?
Small size of NZ geography community	"The relatively small size of the geographical community...could be seen as strengthening communal and collegial identities...the foundations of a New Zealand geography identity may...derive from the overall spirit of the geographical community that appears to be one more oriented towards 'camaraderie' and collegiality rather than competition" (Sidaway & McGregor, 2008, p. 2).	Was there a sense of community of geographers beyond the academy who are associated with postgraduate geography?
Frontier of knowledge production	Sidaway and McGregor (2008, p. 2) stated that "New Zealand geographers have been at the forefront in assessing and theorizing the crucial spatiality of the economic restructuring of the 1980s and 1990s (Le Heron & Pawson 1996; Larner, 1998)".	Were postgraduate geography pedagogical practices at the forefront of knowledge production, recognising that knowledge is both spatially and temporally dynamic?
International connectedness	The research and teaching practices of NZ geography academics indicate high levels of engagement with international geography practices and literature.	Did postgraduate geography pedagogical practices demonstrate strong connectedness and contribution to international geography and geographers?
Co-learning	The citation associated with Professor Richard Le Heron's Distinguished New Zealand Geographer Medal in 2009 stated "In his recent co-writing projects...he has sought to influence change through co-learning and performative engagements...Many of Richard's recent publications are co-authored, attesting to his commitment to collegiality and to mentoring junior colleagues...Richard practises his commitment to building the connections across places, generations, and bodies of thought that will sustain geography through multiple challenges and position it for trans-disciplinary times" ⁶⁷ . Sarah Johnsen (PhD, University of Otago) ⁶⁸ stated "I had intended to travel overseas to do a PhD but stayed at Otago because...I've enjoyed the collegial support from staff and	Were collaborative and performative engagements evident in postgraduate geography pedagogical practices?

⁶⁶ This quote was retrieved in 2006 from:

<http://massacre.otago.ac.nz/static/Geography/People/StudentProfiles/RichardSeymour.html>

⁶⁷ Quote retrieved on September 10th 2011 from: http://www.nzgs.co.nz/images/stories/nzgs/pdfs/nzgs-citations/richard_leheron_citation.pdf, paras. 8-10.

⁶⁸ Quote retrieved in 2006 from:

<http://massacre.otago.ac.nz/static/Geography/People/StudentProfiles/SarahJohnsen.html>.

Distinctive NZ geography characteristic	Empirical/ literature observation or comment	Question that emerged regarding postgraduate pedagogical practices
Holistic comprehensions of the discipline	<p>my postgraduate student colleagues in the department". Brierley (2009, p. 12) claimed that "(m)ore effective engagement is achieved through hands-on, practical experiences or exercises that promote communication as a two-way process—a semi-structured process of talking and listening, dialogue and discourse. Participation is a key to engagement. Tutorial sessions, workshops and debates promote a deeper connection with the issue under discussion. Collaborative learning initiatives provide a forum for exploration, enhancing collective learning through problem-based activities. In this way, groups move forward together, sharing experiences and perspectives".</p>	<p>Is an holistic approach to knowledge production, incorporating an awareness of the significance of spatial and temporal considerations – contextualisation and framing of knowledge production – importance of sites, spaces, places,... evident in postgraduate geography pedagogical practices?</p>
Situated knowledges, positionalities and reflexivity	<p>Feminist and post-structural NZ academic geographers called for the consideration of situated knowledges, reflexivity and the like (Kindon, 2003).</p>	<p>Is an awareness of the importance of self as the researcher through consideration of reflexivity, positionalities and trajectories in geographic knowledge production evident in postgraduate geography pedagogical practices?</p>
Pedagogical interests	<p>NZ academic geographers explicitly consider pedagogical issues as evidenced by their contributions to the INLT Geography, the <i>JGHE</i> and the Geo-Ed section of the <i>NZG</i>. At the University of Canterbury in 2000 about one third of geography academics were involved with pedagogical research. Other staff commented that they would like to undertake this research if time permitted (Spronken-Smith et al., 2000).</p>	<p>Did postgraduate geography pedagogical practices exhibit consideration of pedagogy and how geographic knowledge is produced?</p>
Transferable skills development	<p>An examination of geography department websites showed that a range of research and other transferable skills are taught throughout the curriculum.</p>	<p>Is transferable skills development evident in postgraduate pedagogical practices?</p>

Source: Accumulated from a review of relevant geography higher education literature and empirical findings.

6.2.5. Framing NZ's distinctive postgraduate geography pedagogical practices within broader good practices

The higher education literature abounds with examples and suggestions of good postgraduate pedagogical practices – more than are reasonable to include in this thesis. Therefore I present only the top 25 ‘good practices’ based on the frequency with which they appeared and received positive critique in contemporary higher education literature since the early 1990s (column one of Table 6-6). There is evidence of a shift in the nature and complexity of research supervision practices.

From analysing thesis acknowledgements and the transcripts from supervisor and student interviews I determined the range of postgraduate geography pedagogical practices. Then I examined the extent to which postgraduate geography in NZ has engaged in each of these 25 so-deemed good pedagogical practices, often well before the first mention of each practice within the higher education literature and often in some quite distinctive ways. The 1990s and 2000s stories were in many ways quite distinct. Therefore in Table 6-6 geography's postgraduate pedagogical practices have been divided into those performed before and after 2000. Both former students and supervisors reported that supervision and other postgraduate research practices were far less formalised or structured during the 1990s compared to those since 2000. Geography, and geography in NZ, went through a marked phase of change at the end of the 1990s/ early 2000s. Postgraduate research completed in the 1990s was characterised by a less well developed set of practices, but these practices were still quite distinctive. In the 2000s practices were more developed and distinctive in response to a focus on research and a multiplicity of other related factors.

Table 6-6: Relating geography's postgraduate pedagogical practices compared to the top 25 'good' postgraduate pedagogical practices

Top 25 'good' postgraduate pedagogical practices according to the literature ⁶⁹	Geography postgraduate pedagogical practices in NZ 1993 to 1999	Geography postgraduate pedagogical practices in NZ 2000 to 2008
<p>1. Understanding supervision relation Right supervision partnership for the project (James & Baldwin, 1999)– supervisor is expert or at least interested in the field Successfully balance institutional, disciplinary, supervisor and student agendas</p>	<p>Limited PhD supervisory expertise available Research topics limited to the national scale Supervision partnerships focused on product and research training</p>	<p>Focus on positionalities Focus on where postgraduate education fits within student career trajectory Cross-university and cross-disciplinary supervision</p>
<p>2. Clear expectations Negotiate and agree on reasonable expectations (Aspland, et al., 1999; Grant & Graham, 1994)- Supervision contract (Grant & Graham, 1994; Grant, 1999)</p>	<p>Expectations not always linked to careers Supervisors generally leading research process Expectations not always formally agreed upon Supervision contracts</p>	<p>Expectations linked to career trajectories Negotiated and compromised expectations Students leading research process Expectations evolve Supervision contracts</p>
<p>3. Flexibility Flexibility to account for individual student needs and stage of the process (Brew & Peseta, 2004; Grant, 1999; James & Baldwin, 1999)- scaffolding (Bruner, 1983) Task-oriented supervision</p>	<p>Supervisors got to know individual students socially Supervisors were flexible despite a lack of training Supervision practices evolved relative to the stage of the research process Developmental supervision practices designed to promote the emergence of independent researchers</p>	<p>Open-minded Broad Inclusive Supervision practices evolved relative to the stage of the research process Developmental supervision practices designed to promote the emergence of independent researchers</p>
<p>4. Research design and process Research topic (Brown, 2010; Pryor, 2010) and proposal development – supervisors work collaboratively with students to develop strong conceptual structure and thesis plan Incorporate reflexive practices by both supervisors and students (Ahern & Hawthorne, 2008) Supervisor has strong interest but gets students to take ownership of the topic</p>	<p>Develop a research proposal Develop an overall research plan</p>	<p>Multiple paths mapped out in research plan Thesis topic considered at multiple scales from big picture (macro) to detail (micro)</p>
<p>5. Availability Initiate regular and structured meetings/contact and good communication (Watts, 2010) Promote clear, open and honest communication</p>	<p>Meetings in supervisor's office Meetings in the field Telephone conversations Open-door policy Some domestic students wanted to</p>	<p>Meetings around tables in supervisor's office Meetings in cafes or other 'neutral spaces' Meetings in the field</p>

⁶⁹ The top 25 'good' postgraduate pedagogical practices are presented here in rank order according to the frequency with which they appeared in the postgraduate supervision literature. A total of 986 articles, books or book chapters were sourced for the time period 1993 to 2011 using the search terms 'postgraduate supervision' and 'postgraduate pedagogy'.

Top 25 'good' postgraduate pedagogical practices according to the literature ⁶⁹	Geography postgraduate pedagogical practices in NZ 1993 to 1999	Geography postgraduate pedagogical practices in NZ 2000 to 2008
Adopt an open-door policy (King, 1996) Using technology to aid communication (Muyinda, Lubega, & Lynch, 2008) E-supervision (Gopal, n.d.)	be left to their own devices	Meetings at conferences Skype conversations Supervisor adopts open-door policies for postgraduate students Research argument is mapped out during white-board sessions Virtual supervision of distance and part-time students
6. Promote questioning Supervisor answers student's questions, raises questions and encourages students to question (Chiappetta-Swanson & Watt, 2011).	Supervisor provided several alternative solutions	Supervisor encouraging student to answer their own questions Supervisor raising questions Supervisor getting student to rethink/re-frame their initial question Supervisor encouraging multiple readings/ interpretations of information to get student to raise difficult questions and think critically – to push existing knowledge frontiers Supervisor regularly asking student 'so what is your thesis argument today?'
7. Formative feedback Regular submission of work for review by student and timely critical/ constructive feedback from supervisor (Paré, 2010) Provide high quality feedback- timely and formative feedback	Written feedback Verbal feedback Feedback limited to that from supervisors and students in the geography department	Softcopy feedback Multiple feedback sources throughout the process from supervisor, other academics, other students, national or international conference participants
8. Focus on thesis writing Promote writing early and often (Thomson & Kamler, 2010) and encourage participation in writing groups (Aitchison & Lee, 2010; Parker, 2009) Discuss what a thesis is	Promote writing as a process Encourage writing as thinking	Students write from outset and submit writing regularly Early understanding and exemplars of what a thesis is Supervisors model the academic and thesis writing process Supervisors allow students to provide critical feedback on their research processes and drafts of their writing Students regularly summarise their theses as conference abstracts
9. Networking and exposure of student and work Connecting students nationally and internationally (Menter, Da Silveira, Duarte, & Gorur, 2010)	International connections mostly through literature National connections limited to relationships with councils and government organisations, and attendance at conferences such as NZGS	Students and supervisors attend and present at national and international conferences Supervisors introduce their students to international colleagues Students and supervisors organise national and international conferences, workshops, symposia
10. Broad exposure of, and feedback on, work Seminar and conference presentations (Chiappetta-Swanson & Watt, 2011).	Seminar presentations in departments Writing conference papers – sometimes published in	Seminar presentations in department/ school Seminar presentations across broader university

Top 25 'good' postgraduate pedagogical practices according to the literature ⁶⁹	Geography postgraduate pedagogical practices in NZ 1993 to 1999	Geography postgraduate pedagogical practices in NZ 2000 to 2008
Encourage publishing or co-publishing (Howett, 2011)	proceedings Some PhDs publishing articles in national journals	Workshops led by supervisors Workshops led by students Virtual presentations across universities and nations Co-publishing where students and supervisors co-author papers Students publish their work in national and international journals Publication throughout the process Thesis with publication Journals designed specifically for postgraduate students to publish in
<p>11. Supervision as collaborative practice</p> <p>Co- or joint-supervision, team- or panel-supervision (Watts, 2010) incorporating complementary supervisors (Manathunga, 2005b) and supervision of students in research teams (Sampson & Comer, 2010) Supervision training and development – Resistance to mandatory training for new supervisors Guidelines for supervision Supervision linked directly to measures of academic's teaching and research performance Interest in relationship between reputation and supervision Teaching excellence awards for research supervision Supervision linked to PBRF Tension between quantity/ throughput and quality – focus on timely completions</p>	Co-supervision of masters students Informal reflection on supervision	Supervision in research teams Holding joint supervision meetings Students supervising each other Students supervising supervisors Supervisors supervising each other Shared practices and research processes Experienced supervisors mentor new supervisors Giving students most of the responsibility – even lead role - Post-Docs supervise Doctoral who in turn supervise Masters Both informal and formal reflection on supervision
<p>12. Co-learning and co-production</p> <p>Promote co-learning (Le Heron et al. 2006) and co-production through peer learning (Boud & Lee, 2005)</p>	Some implicit co-learning	Increasingly explicit evidence of co-production and co-learning Workshops Reading groups Joint publications
<p>13. Sense of community</p> <p>Learning communities (Parker, 2009) See supervision practices as performed within communities of practice (Wisker, Robinson, & Schaham, 2007) Supervision using a collaborative cohort model (Burnett, 1999)</p>	Social and academic communities Shared practices Multiple meanings Strong communities of practice in departments with large postgraduate student cohorts	Generative departmental knowledge spaces Attempts to develop a NZ wide knowledge space Students in similar disciplines work together
<p>14. Research across disciplines</p> <p>Cross-disciplinary endeavours/ engagement (Adkins, 2009; Gasper, 2010; Grigg, Johnston, & Milsom, 2003; Hodge, 1995; Manathunga, Lant, & Mellick, 2006) Encourage students from diverse disciplines to work together</p>	Interdisciplinary endeavours were limited to those within geography	Encourage students from diverse disciplines to work together Society-nature relations Transdisciplinarity

Top 25 'good' postgraduate pedagogical practices according to the literature ⁶⁹	Geography postgraduate pedagogical practices in NZ 1993 to 1999	Geography postgraduate pedagogical practices in NZ 2000 to 2008
<p>15. Resources Establish resources and support networks - Funding (Chiappetta-Swanson & Watt, 2011)</p>	<p>Limited funding from department and university Funding from external organisations</p>	<p>Scholarships Research funds</p>
<p>16. Transferable skills development Focus on students' learning and transferable skills development – personal and professional development (Chiappetta-Swanson & Watt, 2011)</p>	<p>Local, regional and national networking PhDs completed with view to an academic career</p>	<p>Ongoing research projects Guest lectures</p>
<p>17. Career and ongoing collaborations Take an active interest in students' future careers (Chiappetta-Swanson & Watt, 2011) Collegial relationships that continue after the thesis is submitted</p>	<p>Helped students to find employment Provide a reference</p>	<p>CV development throughout research process Networking and exposure opportunities Business cards Professional websites Conference Publication Enable academic or research identity formation of student Prepared students for uncertain career trajectories Student and supervisor engage in ongoing research after student graduated Student is invited back by supervisor after graduation to provide guest lectures or seminars</p>
<p>18. Broader department and university Student involvement in broader departmental and university life, including interacting with other students and staff and gaining teaching experience (Chiappetta-Swanson & Watt, 2011; James & Baldwin, 1999) Promote a sense of belonging/ community among students</p>	<p>Involvement in departmental academic and social activities Teaching – tutoring and lecturing Attendance at department seminars Students participating in and presenting regular (often weekly) departmental seminars Students use departmental seminars to rehearse for conferences Students collaborate on fieldwork/data collection Shared coffee, lunch or dinner sessions</p>	<p>Involvement in departmental/ school and university wide academic and social activities Research-informed teaching with undergraduate students Reference student's research in teaching Experienced students mentoring less experienced students Experienced supervisors mentoring less experienced supervisors Students attending, participating in and presenting departmental seminars</p>
<p>19. Applied research Endeavours across academic boundaries – Application of research beyond the academy (Adkins, 2009; Evans, 2010a; Watts, 2010) Constructing professional partnerships around research (Brennan, 1995)</p>	<p>Applied research Strongly influenced by political and community needs related to the RMA 1991</p>	<p>Applied research Full-time mid-career professionals returning to complete a PhD Non-academic co-supervisors</p>
<p>20. Keeping research journals Maintain records of the research process through logging (Yeatman, 1995),</p>	<p>Supervisors encouraged students to keep research journals</p>	<p>Time built in at the end of the research process for reflection prior to submission</p>

Top 25 'good' postgraduate pedagogical practices according to the literature ⁶⁹	Geography postgraduate pedagogical practices in NZ 1993 to 1999	Geography postgraduate pedagogical practices in NZ 2000 to 2008
reflective journals and blogging (Ward & West, 2008)		Supervisors reflect on their own supervision practices
<p>21. Relevant experiences Acknowledge what experiences the student brings to the research (Leonard, 2010)</p>	<p>Most students brought only NZ undergraduate geography experiences Some students had work experience in councils and government organisations</p>	<p>Mid-career professionals returning to complete a PhD International students coming to NZ to complete a masters or PhD Not all students have completed a prior degree in geography</p>
<p>22. Support of student Inspire, motivate and build confidence and hardiness (Owler, 2010) in the student – Cognitive-behavioural coaching (Kearns, Gardiner, & Marshall, 2008) Help if academic or personal crises crop up – supervisors enlist the assistance of student development and support services (James & Baldwin, 1999)</p>	<p>Many supervisors viewed personal management to be the student's responsibility Supervisors predominantly concerned with the thesis product Supervisors interacted with students socially</p>	<p>Supervisors see postgraduate students as junior colleagues Supervisors model their own research and broader academic practices to their students Supervisors share their own successes and challenges with their students</p>
<p>23. Thesis as product Carefully monitor the final production and presentation of the thesis (James & Baldwin, 1999)</p>	<p>Students referred to example completed theses</p>	<p>Supervisors have students incorporate time at the end of the process to reflect on their work prior to submission</p>
<p>24. Use of literature Supervisors show students how to review the literature (Golde, 2010)</p>		<p>Supervisors model how to manage the literature Literature is used to support thesis argument Students form reading and theory discussion groups</p>
<p>25. Examining the thesis Preparation for oral defence (Wellington, 2010)</p>	<p>Limited consideration of examination processes</p>	<p>Oral critique and defence of thesis by student throughout process Supervisors encourage students to sit in on other oral defences Supervisors arrange mock oral defences</p>

Source: Postgraduate research supervision literature and empirical data.

At the outset of my empirical research I assumed that there were differences between masters and PhD supervision practices. In reality this was not really the case. For this reason I have not distinguished between masters and doctoral students. As one supervisor summarised:

'I adopt similar practices for the supervision of Masters and PhD students. The major difference is probably that PhD supervision is more likely, at times, to involve meeting in teams (student and co-supervisors). In the end, being an effective supervisor, regardless of whether it is at Masters or PhD level, seems to come down to having effective communication with the student. Being able to sort ideas, reinterpret ideas, foster coherent writing, excite and encourage students about learning and so on, I think, is all about being able to communicate'.

All supervisors interviewed commented that they did not believe in a 'one size fits all' toolkit of postgraduate pedagogical practices, using statements such as: *'I don't have in mind a particular kind of model that I roll out with a supervisee'*; *'different students are different you know...so what's effective for...one student, might be the very worst thing you could do for another student...so I'm not sure I can generalise'*; and *'supervision practices differ quite a bit if a student is coming in on an existing research project where they have a fairly clear responsibility or if they're in a sense self-funded and therefore at liberty to really drive their own research topic'*.

Many supervisors also acknowledged the need for their practices to evolve over the duration of the postgraduate research. One supervisor advised how he: *'usually start[ed] the whole process by having a one-to-one discussion with the student about what it's all about, and finding out from them how they would like the supervising relationship to, I guess, evolve but to start out really...and so I anticipate that if I have several students they may have quite different relationships with me as we go through. Some will be requiring a lot of help, others will say 'I'll come and see you when I need you'. As long as they're moving along I try to remember what we've agreed to and follow that through'*.

Supervisors all seemed to view their postgraduate pedagogical practices as sitting on a continuum from extremely hands-on to extremely hands-off. However, the ways in which different supervisors considered themselves to be hands-on or hands-off were extremely variable. Some supervisors saw their role as editors whose role was to improve students'

written communication. Others considered that correcting of structure and grammar was not part of the supervisor's role.

One supervisor considered his most effective supervision practice to be a supportive '*spanner in the works*':

'being highly critical but supportive...and that's actually a real tension trying to get that right because some people respond to criticism in very different ways to others...and it takes a while to figure out what it's like for each individual student. And probably the best input ultimately I provide is the critique of work because ultimately that's what they're going to be examined on...the written material. And I have up on my wall up there...that little thing up there with the spanner ...that's what one of my students gave to me...probably that epitomises me...I always throw in the tricky questions...asking them questions...not telling them they're wrong but have you thought about this or that'

Each supervisor and student interviewed, as part of this research, was asked what they considered to be the three most and the three least effective supervision practices respectively. Table 6-7 provides a summary of the ten most common responses of each by supervisors and students.

Table 6-7: Ten most and least effective supervision practices according to supervisors and students

	Supervisors	Students
Most Effective Practices	<ol style="list-style-type: none"> 1. Effective communication to agree expectations, determine each student’s needs and the like 2. Ensure that student owns the topic 3. Co-supervise and get students to work together so all involved learn and benefit 4. Spend sufficient time at the outset on proposal to get a focused research topic and clear research structure and plan 5. Provide samples of research proposals, ethics applications and completed theses 6. Organise regular meetings where students keep minutes of meetings 7. Use white-board sessions 8. Give feedback that asks difficult questions of students and encourages students to ask difficult questions 9. Get students to write early and often 10. Require seminar and conference presentations at start and toward end of thesis 	<ol style="list-style-type: none"> 1. Promote regular meetings where the supervisor is highly engaged and listens to student’s ideas 2. Support unscheduled meetings when student has something to discuss, which student is responsible for arranging 3. Provide regular constructive feedback on writing 4. Be approachable and have an open-door policy 5. Assist in the field or lab 6. Help prepare for examination and oral defence 7. Encourage publication 8. Encourage attendance at seminars and conferences to build networks 9. Recommend and discuss relevant literature 10. Learn from student and considers student’s positions – allow student to work across academic and non-academic boundaries
Least effective practices	<ol style="list-style-type: none"> 1. Edit and rewrite students’ work 2. Be too nice to students 3. Favour some students over others 4. Have a formal supervision contract 5. Supervise in teams⁷⁰ 6. Supervise individually 7. Use students to increase publications 8. Force ideas onto students 9. Not be proactive in arranging meetings and leave students to their own devices 10. Be hypercritical and not give sufficient positive reinforcement 	<ol style="list-style-type: none"> 1. Lack expectations or guidelines 2. Supervisors dictate regular meetings 3. Have very irregular meetings 4. Provide conflicting feedback 5. Delay feedback 6. Lack deadlines 7. Give insufficient guidance or direction 8. Influence direction of research toward own agenda 9. Lack interest in topic 10. Implement different practices with different students

Source: Empirical data.

6.3. Co-learning and co-production as distinctive practices

Both co-learning and co-production of knowledge, although only occasionally explicitly referred to, were frequently implicit with those postgraduate geography pedagogical practices that were deemed to be effective by both supervisors and students interviewed (see lists of effective practices in Table 6-5 above).

⁷⁰ ‘Supervise in teams’ and ‘Supervise individually’ can be set next to one another under least effective practices because supervisors had a lot of different understandings and experiences.

6.3.1. Emergence of co-learning in education contexts

The concept of co-learning emerged as early as 1988 in relation to school-based literacy education (Smith, 1988) as a way to re-frame traditional hierarchical pedagogical practices, comprising teacher and learners as more shared learning endeavours. Extending Smith's notion, still in the context of school classrooms, Brantmeier (n.d.) viewed co-learning as an "[e]mpowerment pedagogy" (para. 1), whereby teachers and students were "joint sojourners on the quest for knowledge, understanding and...wisdom" (para. 1). I make a direct extrapolation of this view of co-learning to supervisors' and students' endeavours to produce new knowledge.

According to Brantmeier (n.d.):

Positioning oneself as a co- learner...challenges the traditional authoritative, dominant and subordinate role sets...and the unequal power relationships...In its ideal form, co- learning: acts toward student empowerment; it dismantles asymmetrical power relationships in the classroom; it builds a more genuine "community of practice"; and co-learning moves students and teachers toward dynamic and participatory engagement. (para. 1)

Such reconsideration of traditional supervisor and student roles and re-framing of the contexts in which postgraduate pedagogical practices are performed was evident in postgraduate geography. These are discussed in the remainder of this chapter and chapter seven.

Further, Brantmeier (n.d.) considered it important for co-learners to reflect on what is learned and the learning process. In the context of postgraduate geography pedagogical practices, I believe that such reflection is important for research capacity-capability building. I propose, drawing on my own empirical evidence, that postgraduate level students are qualified and experienced to reflect on and conceptualise the contributions that their work makes to the discipline as well as broader knowledges.

Brantmeier (n.d.) presented ideals of co-learning relations within co-learning spaces (Table 6-8). These attributes can be used to depict co-learning elements of postgraduate geography pedagogical practices.

Table 6-8: Characteristics of co-learning relations and environs

Characteristics of a Co-learning Relationship:	Characteristic of a Co-learning Classroom Environment:
All knowledge is valued Reciprocal value of knowledge sharers Care for each other as people and co- learners	Shared power among co- learners Social and individualized learning Collective and individual meaning- making and identity exploration
Trust Learning from one another	“Community of practice” with situated learning Real world engagement and action Room layout changed for roundtable discussion

Source: Adapted from Brantmeier (n.d., paras. 6-7).

6.3.2. Co-learning and co-production in higher and postgraduate education

The term co-learning has appeared and been applied in a wide range of contexts throughout the higher education teaching and learning and academic geography literatures. There are references to not only co-learning, but also collaborative learning and co-operative learning. Co-learning in undergraduate contexts has been expressed as peer learning between students, and the learning between teacher and students. According to Onwuegbuzie (2001, p. 164) “(c)o-operative learning is the instructional use of small groups in which students work together to maximize their own learning, as well as that of their group members”. This definition implies the generative potentialities of co-operative learning, but only extends as far as the gains to individual students.

Co-learning in postgraduate education, I argue, involves supervisors and students learning together and from each other. Bartlett and Mercer (2000, p. 199) argued that the postgraduate supervision relationship should be based on “the concepts of collaboration, community and most importantly, companionship...[and remind the reader]...of the importance of personal narratives on the shaping of professional relationships”. According to Phillips and Pugh (2000), supervisors must communicate and negotiate with their students to determine mutual expectations, responsibilities and benefits for collaborating not only together but also with other stakeholders both within and beyond the academy.

In keeping with the tendency to frame supervision as a component of research, rather than teaching or learning, activities, Boud and Lee (2005) proposed the notion of supervision as co-production of knowledge. Alison Lee (2008) explained that:

[This co-production] conception of supervision...involves developing tools of collaboration and negotiation, joint management and partnership. It operates at a variety of levels: with individual students this includes a project-management approach to supervision, with the student primarily responsible for the management of the supervisory relationship. Before students can claim any expertise in their research, they are positioned as exercising significant responsibility. (para. 3)

Ward and West (2008, p. 65):

Suggest[ed] that, following Boud and Lee's model of 'co-production' of knowledge...the pedagogical partnership between supervisor and candidate can be used as a partnership for shared development of knowledge, with an understanding that the thesis is developed from the knowledge created within and through the pedagogic partnership. We accept that this partnership is continually being negotiated and rebalanced, but we do not claim that it is, or ever can be, equal in terms of "power and authority and expertise" (Boud & Lee 2005: 511).

Others pointed to the evolution of new supervisory practices, including collaborative knowledge-sharing activities such as supervisory panels, group supervision and peer groups (Allen, Smyth, & Wahlstrom, 2002; Malfroy, 2005).

Use of the fiduciary metaphor arguably allows postgraduate geography supervision to be framed as a generative co-learning practice. As Mackinnon (2004) explained:

In the fiduciary metaphor, the focus is on a relationship which is essentially an ethical one of promoting the welfare of the student. The effectiveness and continuance of the relationship depends on trust. Differentials in knowledge and power are respected but not exploited. Those with greater knowledge and power have correspondingly greater obligations. The language is that of mutual responsibilities and obligations rather than rights. This is contrasted with paternalism, a widespread metaphor within the professions generally, which disempowers and marginalizes. (p. 395)

Johnson, Lee, and Green (2000) foresaw that "new modes of knowledge production" (p. 143) and trends of collaborative university research endeavours, would require researchers to develop collaborative skills. More recently Boud and Lee (2005) implied that such 'co-production' is contingent on 'co-learning':

a more appropriate pedagogic discourse should draw on the familiar notion of 'peer' from the world of research. It argues that peer learning, appropriately theorized and situated within a notion of communities of research practice, might be a productive frame through which to view research education. (p. 501)

An understanding that postgraduate learning is socially situated (Boud & Lee, 2005) was not generally evident in either policy development or provision of services for postgraduate students beyond departments or schools in NZ universities. With the exception of postgraduate support programmes (such as writing or language assistance), there had been little or no attempt to formally situate learning for masters or PhD candidates outside the supervisory relationship or discipline.

6.3.3. Co-learning and co-production in postgraduate geography education

There was evidence within postgraduate geography of the use of roundtables (Alibrandi, 2005) and learning circles (Manathunga, 2005a) among supervisors and students. The round formation inherent in both roundtable discussions and learning circles helped to reduce power imbalances between supervisors and students. The majority of postgraduate geography pedagogical practices were reported to be performed around tables, often over coffee or lunch.

The first explicit definition of co-learning in relation to geography in higher education was provided by Le Heron et al. (2006). These geography academics argued that co-learning was a way to bring together and co-develop geography's often disparate teaching and research activities in distinctive and new ways to gain maximum advantage in a globalising knowledge economy. They defined co-learning as "coordinated and targeted approaches to maximizing the synergetic relationships between research and teaching such that their symbiotic development capitalizes on prior learning and experiences of all involved and feeds back positively on the nature and quality of both research and teaching environments" (pp. 77-78). As their intent was not to provide a prescriptive model, this definition of co-learning did not detail the distinctive practices involved.

Geography, as with other disciplines within the university context, has experienced an increasing tension between research and teaching. I believe that postgraduate geography research is a case where long-held notions of teaching, learning and research as disparate activities are questionable. I extend the ideas of research-informed teaching, research-led teaching, and the teaching-research nexus. In the research supervision co-learning and co-

teaching partnership (Le Heron et al., 2006) all actors have interchangeable and often entwined roles as teacher, learner and researcher in a research project. Thus I perceive use of hierarchical dichotomies such as supervisor/student as inappropriate in a co-learning and co-production context.

Le Heron (cited in McEntee, 2006) acknowledges that co-learning benefits all actors in the supervision relation. The calibre of the actors and the knowledges they produce influence the quality of the co-learning that can take place. Brantmeier (n.d.), Le Heron (cited in McEntee) and Mackinnon (2004) all recognised that an effective co-learning relation is founded on trust: in postgraduate pedagogy both supervisor(s) and student(s) have much to gain or lose from the relation.

One geography supervisor demonstrated his recognition of the socially situated nature of postgraduate learning and knowledge production by commenting:

'So there's those sort of social things which are really important, I think they're really important for the educational experience because the associations with education are really important aspects, or drivers of emotional well-being in the process of learning, which is another way of saying, I think having fun is important; and the memories that people have, and the associations and the learning; because often people forget content, but they remember the tone, they remember what you model'.

Conceptualisations of co-production, as processes contingent on evolving notions of co-learning, were only becoming explicitly addressed in the geography literature (Le Heron, under reviewa, under reviewb; Le Heron, E. et al., 2011) and in postgraduate geography pedagogical practices in NZ as my doctoral research came to a close.

Many supervisors perceived their postgraduate geography pedagogical practices as needing to be collaborative, especially with PhD students, to maintain an effective and productive relationship over several years. Some supervisors argued that while they deemed co-learning to be an acceptable practice, they did not deem co-production to be acceptable, believing that the thesis should be completely the student's own autonomous work. Others described the completion of all theses as exercises in co-production. Table 6-9 provides

examples of practices and words and phrases from the empirical data that explicitly or implicitly hint at co-learning and/ or co-production.

Table 6-9: Co-learning and co-production practices evident in NZ postgraduate geography

Practices denoting co-learning or co-production	Words/phrases used by supervisors/students denoting co-learning or co-production
Assist with field work	Co-learning
Share resources	Co-production
Share literature	Mutual learning
Discuss theory	Our
Discuss methodology	Our team
Form reading groups	Us
Form writing groups	We
More experienced students supervise less experienced	Together
Bring own experiences and case studies	Shared
Model research process	Joint
Model writing process	Liaison
Mentor	
Co-supervise	
Team supervise	
Formal and informal discussion of supervisory styles	

Source: Empirical data.

Co-learning involves movement beyond traditional hierarchical and uni-directional relationships associated with university academic practices of teaching, learning and research, such as the supervisor-student relationship. Co-learning recognises that all stakeholders/actors are learners and necessitates effective communication among them. Co-learning involves capitalising on the prior learning and experiences of all involved to create positive learning outcomes for all.

One student hinted at the capacity-capability building nature of his co-learning doctoral supervision relation:

‘[My supervisor] had a working space and a research assistant, away from the department which I worked in...and it was in that, that I tended to get the supervision, but it was not so much directly on my thesis, it was on some writing projects that...[the three of us]...were developing; so it was learning by doing in as much as learning by this sort of civis never; it was wonderful actually, it was never

a student-supervisor relationship of a normal sort...so I got all of [my supervisor's] contacts, plus all of his sense of how you build knowledge...I consider myself extraordinarily fortunate.'

Another student noted that: *'at some point you catch up to your masters supervisor and then you overtake him/her, because you go in different directions. I do feel that I can talk to him as an equal, and actually most of the other staff as well'.*

According to one supervisor:

'For me postgraduate research supervision is a project of co-production of a thesis and possibly other outputs, such as papers or book chapters. I had really good supervision by someone who had a really good sense of the process and I feel like I learned that from him. I would like to think that I instil in my students a good sense that throughout postgraduate research supervision there is a shared process of learning – a journey together.'

A further supervisor believed that:

'The best postgraduate students are self-motivated and once given reassurance and guidance they just get on with it and you learn from them just as much if not much more than they get from you. You can have an excellent, stimulating discussion; and you come away as a supervisor thinking that was great, this is interesting research, they really know what needs to be done, and you're really looking forward to next time when you find out what they have discovered.'

Most supervisors described having a fairly informal approach to supervision, maintaining an essentially open-door policy. Supervision tended to be low power-distance (McClure, 2005), and supervisors often viewed students, particularly PhD students, as colleagues.

Supervisors viewed respect for their students as important. One remarked:

'As a supervisor I always respect my students; respect their views, respect their ability; to show them that I actually believe that they can do it; to show them that I consider them to be an equal; because we're colleagues in a research community; they've asked me to play the role of their manager, but it's their project, they're going to know more about it than me and I'm going to learn from them because I'm going to read their stuff and learn from it, and that's going to be useful to me, and I think that's also very useful.'

The practices of supervision were performed by another supervisor as that of a coach, again recognising the importance of performing with compassion to be respectful of students:

'Most of the way I coach has been developed independently of any particular course; and I've tried to replicate the qualities in the best teachers I've known and used them as my model; and the best teachers I've known, I judge by how they make me feel, how they have helped me lift my game and do neat things, so I have reflected on that sort of mentoring in the past, and some not so distant past,...and a lot of what I do...is to be encouraging, to be enthusiastic, to be inclusive, to be motivating, to be empowering to lift up the other person, to be compassionate; you know if there is a secret to the type of supervision that I provide, it's from a compassionate grounding...from a compassionate space. Therefore, if they have a view which I don't agree with, well I respect that view, 'cos the compassionate view would acknowledge that my view's not the only view.'

Further, in respecting students, supervisors acknowledged the importance of empowering students to learn to make decisions. One considered:

'allowing students to say NO is another useful thing; and trying to force anything on someone is not useful; trying to force a topic...a technique or anything...I don't think that's very useful. I think inviting people, offering things to people, giving them the power to make decisions about the extent to which they use my advice, is better than saying: you'll do this, because that sets up a power dynamic which I don't think is very useful at all. And people who work well under that kind of power dynamic are not going to be very creative people; because they're just going to be meekly subservient in the professional environment and I don't see that as being the kind of graduate I want to turn out.'

The majority of supervisors interviewed reported postgraduate pedagogy to be their favourite part of being an academic, often because of their positive experiences of learning with and from postgraduate students.

*'It's the best bit of the job [enthused one supervisor]. I really like supervision...I really like working with PhD students and I suspect a lot of people feel the same. So **you learn a huge amount from students and from working with students** and you know again it's a process...so there is the moment where the student...you recognise the student now knows way more than you do...about what they're working on and they've got something really innovative and distinctive to say and that's so exciting...so wonderful...you know seeing the buzz that people get when they present their first conference paper and you know...Robyn Longhurst asked them a question...or you know they go to their first international conference and get to meet whoever...it's just so exciting seeing people going from students to being academics which is what supervision...what the PhD is about...And we're not very good at saying that...the same way as we're not very good at saying this is part of the best bit of the best job in the world'. (emphasis added)*

Another supervisor added that she considered her role as:

'very much as a facilitator of learning, rather than a teacher, and so it's about that dialogic process, and I'm also learning, particularly with PhD students because they really stretch the bounds of my knowledge. Yeah so I think it's, you know if you're informed with a transformative learning pedagogy which is my orientation and also elements of critical and feminist and post colonial pedagogy, then you know the intersection, the personal is the political; the political is the personal; and creating a space, I'm trying to work with you as an holistic human being and provide a space for personal development and wellbeing, even though at times that might mean tension and struggle'.(emphasis added)

Co-learning and co-production view learning as a joint enterprise. Because of geography's outward looking nature, Alibrandi (2005) pointed out that geography is a collaborative pursuit "bringing together people and perspectives from their respective domains in new networks of cooperative problem solving" (p. 143). So, how does geography promote co-learning and co-production within or across borders? This question will be explored in chapter eight.

6.4. Diverse understandings of postgraduate geography pedagogical practices

It was interesting to note how many of the former postgraduate students interviewed believed that their personal experience of a supervisor would be the same as that of other students who had the same supervisor. There were several comments made by former students encouraging me as the researcher to triangulate their claims; or that their perspectives would be corroborated by those of one or more other students who had the same supervisor 'you might want to ask [another student] about that'; 'I'm sure that ...[another student]...probably already talked about that', 'Lots of the others would agree with me'. In reality, a practice that one student considered ineffective was often deemed highly effective by another student, and vice versa. There was also a great deal of variation regarding what supervisors and students considered the role of the supervisor should be and therefore on how they distinguished between effective and ineffective practices.

The reality for supervisors is that their supervision practices tend to vary over their academic life, depending on who they are co-supervising with, between students and throughout the process. As one supervisor concluded:

'I mean it's an interesting process and it does come down to the subtleties of relationships and I'm...not convinced that there's a perfect set of supervisory practices...and it certainly does depend on the particular stage'.

Such diversity of practices raised new questions around how practices are assembled and reassembled, and what work such new assemblages are doing.

6.5. Assemblage of postgraduate geography pedagogical practices

I see postgraduate geography pedagogical practices as being assemblage-like. Li (2007) with her work on assemblages provides a useful heuristic for reflecting on postgraduate geography's pedagogical practices by incorporating a Foucauldian emphasis on 'how' knowledge is produced. As Li points out, "assemblage links directly to a practice, to assemble" (p. 264). To Li assemblage involved continuous work comprising a set of practices. She claimed that the most well examined practice is problematization where students and/or supervisors focus on the generation of an appropriate research topic. Then Li provisionally identified six other crucial practices: Forging alignments, Rendering technical, Authorizing knowledge, Managing failures and contradictions, Anti-politics⁷¹, and Reassembling. The way that I am talking here about assemblage is a departure from the intent of Li's provocative piece. I am looking at the application and potentialities that might emerge from framing NZ postgraduate pedagogical practices in terms of Li's practices (Table 6-10). I highlight the practices that might bring about assemblages. In contrast to Li's anti-political practice, that proposes the shutting down of political work, many practices in postgraduate geography were highly political, nudging towards doing political work and serving to open up spaces of, and for political discussion and debate.

⁷¹ 'Anti-politics' involves performing within a place or space such that the influence of politics is minimised if not avoided.

Table 6-10: Applying postgraduate geography pedagogical practices to Li's (2007) practices of assemblage

Six provisional critical practices of assemblage (Li, 2007)	Within postgraduate pedagogy supervisors and students performed practices that:
Forging alignments	linked the goals of those who managed the postgraduate research process (university, department/ school, supervisors, funders, employers, and other stakeholders) to those who were managed (supervisors, students and knowledges).
Rendering technical	ensured the thesis topic combined with supervision and other research practices produced a quality thesis, possibly research publications and a suitably knowledgeable and skilled graduate.
Authorizing knowledge	ensured postgraduate research and associated assumptions were based on relevant and thoroughly critiqued literature and empirical knowledge.
Managing failures and contradictions	presented failure as rectifiable learning for knowledge production, and allowed for compromises between supervisors' and students' views when contradictions arose.
Anti-politics	presented a balanced and validated argument within postgraduate research, serving to minimise the politics of ensuing debate.
Reassembling	took existing content, knowledges and methodologies from both within and beyond geography and meaningfully transformed them to produce new knowledge. This changed the way concepts and methodologies were understood.

Source: Adapted from Li (2007).

For co-learning, co-production and effective supervisor relations, supervisors might argue that it is crucial to work through each of these practices for each unique supervision relation.

Underlying Li's (2007) notion of assemblage is the assumption of 'agency'. In postgraduate education supervisors, students and knowledges were the agents who maintained assemblages: the student-supervisor-knowledge relation. It is important to recognise that assemblages do work. Throughout this relation supervisors and students continue to engage in "the hard work required to draw heterogeneous elements together, forge connections between them and sustain these connections in the face of tension" (Li, p. 264). In other words, postgraduate pedagogical practices are not in a fixed state, but supervisors and students are constantly exploring the research context and environment for relational developments. However, Li alluded to situations where practices could become so fragmented that the entire assemblage disintegrated. Fragmentation was evident in postgraduate geography knowledge spaces on the rare occasions when supervisor-student

relations broke down. This usually required the supervisors and student concerned to be open to the ‘assemblage’ of a new supervisor-student-knowledge relation.

A focus on the assemblage of practices allows me to make some significant claims about ‘good’ supervision practices. I demonstrate that the canons of scholarship are still alive with a hint of new performative canons of scholarship emerging. In fact, I would argue that geographers have made some significant advancements in tenets of performance.

Given such a new assemblage of practices, agents must question and challenge the work that the new assemblage is doing: is this performative work going somewhere? I propose the answer is yes. To partially answer such a question: significant and strategic work of such new assemblages has been in the formation of generative knowledge spaces (chapter seven) that have provided a strong disciplinary foundation for the performance of practices and production of knowledges at knowledge frontiers as well as at, and across existing academic borders (chapter eight).

6.6. Shifting sands on which postgraduate geography pedagogy is built

Postgraduate geography pedagogy practices in NZ since about 2000 continued to be assembled and reassembled in the context of some seismic and rapid shifts in broader global, national and university higher education sands on which postgraduate pedagogies were founded.

Technological advancement had a significant impact on postgraduate geography pedagogical practices, with students and supervisors frequently communicating via email, Skype and the like. Technology also enabled easier and faster access to information through the Internet. Virtual seminars, workshops and fieldwork experiences are also common.

The implementation of the PBRF in 2002 was reflected in postgraduate geography pedagogical practices. Strategic moves by universities in response to the PBRF to increase masters and doctoral student completions resulted in an increase in postgraduate geography student numbers at four of the six universities. This increase was not matched by a

proportionate increase in academic staff, resulting in increased supervision loads. This encouraged supervisors and departments to formalise often pre-existing practices around team student research and team supervision. Completion of publications by students, particularly PhD, has become more common during their research. In very recent years some NZ universities also introduced the option of thesis with publication, especially for PhDs.

The globalising knowledge economy and qualification inflation resulted in a greater diversity of postgraduate research students. More domestic students enrolled in PhDs and there were increasing numbers of international and part-time students, particularly at PhD level. One supervisor acknowledged the influence on pedagogical practices of *'the broader institutional settings, the emphasis on completion, the ways in which PhD students are being explicitly encouraged to develop various kinds of sets of professional skills and the fact that they're being talked about in that kind of language'*.

Stricter requirements of university ethics committees, making approval for research concerned with human participants more difficult to obtain, impacted on postgraduate geography pedagogical activities.

6.7. Strategic propositions

An important outcome of considering assemblage was to highlight some strategic propositions regarding the work that new assemblages of geography's distinct postgraduate pedagogical practices are 'doing'. I identify two strategies that served to build research capacity and capability in the globalising knowledge economy. First, geography departments as communities of practice (CoP) unsystematically or systematically attempted to incorporate co-production and co-learning and attempted to re-frame themselves as generative knowledge spaces. Second, from positions of stronger strategic internal structures, geographers increased their potential to engage in work at and across disciplinary and academic borders.

These strategic propositions, explored in chapters seven and eight respectively, were predominantly gleaned from interviews and dialogue with both supervisors and former

masters and PhD students. The ideas also emerged from informal conversations with academic staff and students when I visited each of the departments or attended geography conferences. I also extracted some information regarding postgraduate student and supervisor experiences from departmental websites. Finally, further information was also gathered from document analysis of the abstracts and acknowledgments of each thesis completed.

In chapter seven I address the ways in which co-learning and other distinctive postgraduate geography pedagogical practices were performed within CoP throughout the 1990s that became more complex generative knowledge spaces after 2000. A sound understanding of geography's distinctive postgraduate pedagogical practices and how they were performed within knowledges spaces provides an important foundation for my exploration in chapter eight of how postgraduate geography practices have taken place at and across external borders: beyond the discipline; beyond the academy; and internationally to answer bigger questions that contribute to broader geography and political agenda.

Chapter 7. Generative knowledge spaces: postgraduate geography becoming more than communities of practice

A [Community of practice] perspective suggests that knowledge construction is relational and dynamic in which learning is an inseparable aspect of social practice. It is to be found in the relationships between people and the context of their activities. (Leshem, 2007, p. 290)

7.1. Framing disciplinary endeavours as communities of practice

The community of practice (CoP) literature was a useful starting point to describe and understand the university contexts of postgraduate geography supervision practices in NZ. According to Akkerman, Petter and de Laat (2008):

The notion of community of practice (CoP) has received great attention in educational...practice and research. Although the concept originally refers to collaborative practices that emerge naturally, educational...practitioners are increasingly searching for ways to create these practices intentionally in order to stimulate learning and professional development in specific fields. (p. 383)

Communities of practice (CoP) have been intentionally formed within higher education to implement change since the 1990s (Hegarty, 2007; 2008; 2009). However, often administrators and practitioners have not implemented the CoP metaphor as originally intended (Edwards, 2005). CoP have only been applied to postgraduate research since 2003 (Leshem, 2007; Wisker, Robinson, & Shacham, 2007; Wisker, Robinson, Trafford, Warnes, & Creighton, 2003a; 2003b). Leshem's (2007) quote, above, initially seemed pertinent in explaining some of the strategic propositions observed in postgraduate geography education in NZ: co-learning and co-production (chapter six), moving beyond CoP to capability building knowledge spaces (this chapter); and situated knowledge production at and across borders (chapter eight).

In this chapter I discuss places, spaces and communities of postgraduate geography in NZ (section 7.2). I use empirical evidence from dialogue with supervisors and postgraduate students, and thesis acknowledgements, to demonstrate how CoP at best explain postgraduate geography pedagogical practices within the 1990s when research supervision was largely limited to *capacity* building within physical spaces. However within the last decade, external influences on postgraduate geography pedagogical practices have demanded a focus on *capacity and capability* building of postgraduate students. This move has made it necessary to rethink the relevance of the original notion of CoP proposed by Lave and Wenger (1991), and extended by Wenger (1998, 2006). CoP are also bounded in disciplines. There are instances in NZ where geographers have stepped and are stepping over these boundaries. I therefore move beyond CoP to the notion of generative knowledge spaces in which supervisors and postgraduate students have performed their distinctive and strategic practices since 2000. As both a metaphorical idea and a heuristic, the concept of knowledge spaces provides opportunities to frame up the supervisor-student-knowledge relation in different terms. Framing postgraduate geography pedagogical practices as knowledge spaces requires geographers to think much more relationally both internally and externally. Such knowledge spaces comprised a complex network of conceptual, physical and virtual interactive spaces that contributed to realising research capacity and capability building potentialities.

Communication is key to the functioning of generative knowledge spaces. I demonstrate how through assemblages of practices students and supervisors often simultaneously engaged with multiple knowledge spaces and the practices within these spaces. These knowledge spaces existed at a range of temporal and spatial scales with variable and changing participation. I reveal how each geography department exhibited sets of practices that can be described as progressive knowledge spaces. I employ Gee's (2005) elements of affinity spaces to broadly summarise the range of practices that existed within these departmental knowledge spaces. I explore to what extent an academic geography knowledge space existed at the national scale. Participation of supervisors and students in international or global knowledge spaces within the last decade is then highlighted. Finally

I consider contextual influences on the success of knowledge spaces, especially in building research capacity and capability, including productive synergies and tensions within and between knowledge spaces.

7.2. Spaces, places and communities of postgraduate geography

For supervisors and students engaged in postgraduate geography education, space and place mattered. Spaces and places available to full-time, on-campus postgraduate students had a significant impact on their senses of belonging, place and community by *'enabling students to feel part of something'*. One supervisor thought there was *'a good culture around the place that people [bought] into as research students...[He liked] the networks, students seem[ed] to commit to the place, so that when they [left] there [were] certain networks that continued'*.

Provision of individual offices made students feel valued yet isolated. *'Our little offices...made you feel actually quite important'* but *'there was virtually no interaction among the PhD students. You were in your dark little offices and you'd occasionally come out and see someone in the staff room'*. Conversely shared office spaces promoted a much greater sense of community. While *'there was reluctance at the development of the shared PhD workspace...ultimately it's proved really beneficial in terms of developing collegiality'*.

Other spaces: common rooms, libraries, map rooms, laboratories and computer rooms shared by supervisors and/or postgraduate students also enhanced the sense of belonging and gave students a feeling of being valued. Student comments included: *'Everybody is treated like an equal in the common room'* and *'There was a geography library...You could always...meet someone and study. Everything was communal'*. It was no surprise then that notions of community were strong where *'the department's always been very supportive and collegial...a sense of being part of it rather than a sense of strict hierarchy'*.

Sense of belonging to a community was equally, if not more entwined in supervisors' and students' social activities, than in their academic endeavours through *'great friendships*

made with other students'. Other phrases/words that described this sense of community included: *'tight group'*, *'sense of belonging'* and *'cohesion'*.

While space and place were relevant in terms of sense of belonging and community, space and place also significantly influenced *how* knowledge was produced through supervision and other research practices: shared spaces and places facilitated shared practices. These shared practices are detailed in section 7.3.

7.3. Practices in postgraduate geography communities

Shared practices held postgraduate geography communities together. A community's practices were dynamic, constantly shifting, renegotiating and reinventing, with changing knowledge, innovation, learning, and changes in practices of other communities.

As Lave and Wenger (1991) pointed out "(l)earning itself is an improvised practice: A learning curriculum unfolds in opportunities for engagement in practice. It is not specified as a set of dictates for proper practice" (p. 93). Many students commented on the ways their learning and research practices took place within social configurations resulting in shared practices. This led to the formation and reinforcement of a sense of individual and group identities.

My findings demonstrated that practices changed as the learner learned, while moving within and between different levels of education, including through the masters and/or PhD research processes. Both students' and supervisors' learning and individual and collective practices changed over the process. Supervisors commented that a PhD candidate moved from apprentice to expert over the doctorate, overtaking the supervisor in a particular knowledge area. Supervisors' evolving practices reflected what they learnt from on-going experiences of supervising students. Supervisors recognised that the needs of each student and topic and therefore each supervision relation was unique. It was acknowledged that practices needed to change throughout a supervision relation.

Negotiation of meaning is central to Wenger's (1998) conception of practice, and is characterised as "the process by which we experience the world and our engagement in it as meaningful" (p. 53). The negotiated production of meaning was fundamental in the constant production, reproduction, and negotiation of what it is to research geography. Some practices were relatively constant over time, while others changed more frequently. To participate fully in the community, core meanings had to be shared. Making meaning required postgraduate students to move from practices associated with learning *how* to 'think and do like a geographer' to practices that contribute to transforming what it *might mean* to 'think and do geographies' and 'think and do like a geographer'.

To Wenger (1998), shared practices are a source of local coherence. This occurs through mutual engagement in a joint enterprise which results in a shared repertoire of performances. Postgraduate supervision was about a mutual engagement between supervisor(s) and student in the joint enterprise of producing knowledge: a thesis. Negotiating a joint enterprise, Wenger argued, gives rise to relations of mutual accountability between those involved, which include what is and is not important, what to do and not to do, what to pay attention to and ignore, and what to talk about and leave unspoken. This results in a shared repertoire of practices which may be very heterogeneous but which gain coherence from belonging to the community's practices. Postgraduate geography was characterised by a diversity of practices. Supervisors and students believed that local coherence was maintained through practices such as research design courses at postgraduate level, regular feedback from supervisors, participation in departmental seminars, and research themes clearly defined on websites. Supervisors talked about practices that had remained largely unchanged as well as those that had evolved.

Supervisors and students demonstrated awareness that there was no point at which a practice was learned. Rather, each practice was dynamic and constantly being fine-tuned. "Change and learning...are in the very nature of practice; they can be assumed to occur, but they always involve continuity as well as discontinuity" (Wenger, 1998, p. 98). Further, Wenger argued that shared histories of learning occurred where learning was thought of as

a process of being engaged in and developing an on-going practice. So, how might geography research capacity and identity in NZ have been built through communities of practice?

7.4. Building geography research capacity and identity through communities of practice

Lave and Wenger (1991) coined CoP in which practices were fundamental and where learning was situated in social contexts. In their view, apprentices developed expertise together with understanding of, and embeddedness in the surrounding context, through participation in legitimate and acknowledged activities that were not central to the practice:

(A)pprentices gradually assemble a general idea of what constitutes the practice...who is involved; what they do; what everyday life is like; how masters talk, walk, work, and generally conduct their lives; how people who are not part of the community of practice interact with it; what other learners are doing; and what learners need to do to become full practitioners. (p. 95)

Considering postgraduate geography supervision practices as performed within CoP allowed an exploration of how these practices changed according to time, location, and social context, and how interrelationships between these changing practices could be managed and understood (Paechter, 2003b). Applying this CoP model to postgraduate geography, supervisors and students were the members of such communities. Supervisors, having completed an apprenticeship, were the masters or full practitioners. Students were positioned as novices engaged in peripheral activities. A number of supervisors in my research acknowledged their important role as a 'master'. One supervisor commented:

'I model behaviours...I regard myself as teaching 24 hours a day...I'll conduct myself in ways that I think are professional...'cos students want a mentor, going out into the workforce, they need and want and deserve mentors for how to cope in stressful situations, how to respond in conflict environments and I see myself as a model of any of those things for them'.

Most communities evident within postgraduate geography education in NZ were intentionally created (an approach supported by Wisker, Robinson, and Shacham (2007)), by either supervisors or students. Postgraduate students were learning to be full participants

(Lave & Wenger, 1991), with the many and varied social practices that implied. It was through sharing information and experiences within the group that the members learned from each other, and had an opportunity to develop themselves personally and professionally (Lave & Wenger, 1991).

A key aspect of the development and perpetuation of CoP within postgraduate geography is reification (Wenger, 1998). Polin (2008) described reification as an ongoing process involving “the freezing of knowledge in a concrete artefact” (p. 282), such as a tool, symbol, story, or concept. In my research the reification process involved marking full participation with the formalising of supervision and other research practices into procedures or policies, the awarding of degrees, and the like. Students were urged to *‘attend (their) graduation...that attendance is a passing out ritual’*. My research reifies postgraduate geography supervision practices through *‘telling the stories’* of supervisors and students.

Wenger (1998) argued that in forming a CoP, individual and group identities are defined “by the ways we experience ourselves through participation as well as by the ways we and others reify ourselves” (p. 149). Wenger defined a community through the dimensions of mutual engagement, joint enterprise and a shared repertoire, which become central to identity. In the case of postgraduate geography research practices, all three dimensions were important.

Within the CoP framework, in an academic geography department, there were multiple levels of membership. Whether someone was recognised as, or permitted to become, a full member of the CoP depended on his/her level of conformity to a set of practices, some more central to group identity than others. An individual’s identity with a community depended on acceptance by *‘the group’*.

Identities and identity formation are locational across time and space. Moving from one place to another requires taking on and learning to inhabit different identities. This was true in the transition from undergraduate to postgraduate, masters to PhD, university to the

workforce, workplace to university; and was further complicated when students moved between disciplines, universities or countries.

“Our membership in any community of practice is only a part of our identity...An identity is thus more than a single trajectory; instead it should be viewed as a nexus of multimembership” (Wenger, 1998, pp. 158–159). Academic geography identities were aspects of each supervisor’s or student’s wider sense of self. Sense of identity was fluid and reflected membership of various CoP around research practices and other things. Often both supervisors and students worked in several teams simultaneously to complete research projects.

CoP and identities were not formed in isolation. Rather, postgraduate research outcomes enhanced both local and global knowledge through their often direct applicability to contemporary human and/or environmental concerns. Simultaneously CoP and identities associated with postgraduate geography have been influenced by local conditions, such as: university policies; community needs; political agendas around research funding; and the globalising knowledge economy.

A number of students commented on the problematic identities imposed on them through popular misconceptions of geography, as an academic discipline: *‘So you are a map maker’*; *‘You probably know the latitude and longitude of every country there is’*; *‘So which country is your research about’*; and *‘People assume that if you are doing geography you will be a teacher, and that you know capitals of countries of the world’*.

Many students spoke of their self-identity as a geographer or with geography: *‘Geography was where my heart lay’*; *‘I enjoyed it [geography] and I was really good at it’*; *‘I feel a real affinity with geography’*; and *‘I’ve had an interest in geography...it’s almost like a secret love’*.

For most masters students who completed their theses in the 1990s, the geography department was the sole CoP to which they belonged. Geography departments were self-contained, housing libraries and so forth. Students typically had very little interaction with

academics or students from other geography departments, in NZ or overseas. They also tended to be *'far less engaged in any practices at the university level'* and saw that *'the university [was] where you [were], but the department [was] where you [were doing] things - difference between space and place'*.

Students' relationships with the broader university were limited to administrative matters such as enrolment, funding, (*'the University gave me some money from the postgraduate research fund'*), submission and graduation. Students noted that teaching, learning and research practices all took place within *'the department [that] was such a focus point and still is...Everything [was] set up here...we didn't really need to go externally [to the wider university level]. If anything, it was set up...to really create an inward looking community and it was vibrant.'* Another student was *'pretty ignorant of geography outside of [his] university, ...didn't realise how diverse geography was [and] had no association with any other geography departments or geography related organisations'*. So, how have postgraduate geography practices in NZ overcome the challenges and confines of the COP model?

7.5. Moving beyond communities of practice in postgraduate geography education

Significant aspects of postgraduate research practices were not accounted for by Lave and Wenger's (1991) or Wenger's (1998) CoP models. First, in applying the CoP model, PhD students were positioned as novices, despite that since about 2005 PhD students had to succeed in a provisional year before becoming fully registered doctoral candidates. Also, since 2004, with twenty five percent of the PBRF dependent on masters and PhD research completion, the activities of postgraduate students, especially PhD candidates, were viewed by supervisors as central to the success of geography departments. Over time, contributions became more complex and important as a student progressed towards fuller participation. Supervisors recognised the *'important contributions that PhD students made to teaching, giving academics more time for research'*. Supervisors also acknowledged that postgraduate students represented the future of geography, their knowledge contributed

significantly to knowledge frontiers, and they produced collaborative research publications that have contributed towards supervisors' personal PBRF scores.

A second limitation of CoP is a lack of explanation concerning how new knowledge is produced (Edwards, 2005). Knowledge production in the form of a thesis has been a required outcome of postgraduate geography supervision practices, and knowledges were viewed as key actors in the supervision relation.

Another restraint was that CoP do not explain the instability or inner contradictions of practices (Engeström, 1999). Engeström (1993) reversed the CoP notion by focusing on the practices of a community where production and communication are entwined. He proposed "(a)n activity system...(that)... incorporates both the object-oriented productive agent and the person-oriented communicative aspect of the human conduct" (p. 67). Both communication and knowledge production were important aspects of successful supervision relations and associated practices.

As Eraut (2002) pointed out, one limitation of CoP is their focus on similarities/ commonalities in the reproductive nature of learning, rather than on differences/ diversity and agency. Thus CoP offer no explanation for how geographic communities transform themselves: a key attribute in making original and frontier research contributions.

According to Paechter (2003a), a further shortcoming of Lave and Wenger's (1991) notion is that they did not sufficiently address the impact of the hegemony of particular forms of knowledge, power/knowledge relations (Foucault, 1980) or gender on the establishment, dominance, evolution and membership of a CoP. Within postgraduate research communities, learning takes place through various hierarchical discourses of supervision characterised by power imbalances between supervisors and students (Grant, 2005). In postgraduate geography such power imbalances and hierarchies were described by supervisors and students as being downplayed because learning often took place in collaborative and peer mentoring ways. An exception where the supervisor-student relation was characterised by an inherent power imbalance, was when the supervisor as a thesis examiner became the gatekeeper to ongoing participation in academic or professional CoP.

Sometimes supervisors were also examiners of their own students' masters and PhDs these completed in the 1990s. In such cases supervisors became one of a number of examiners of a thesis. There was some variation in practice.

Lave and Wenger (1991) perceived participation in a CoP as a continuous linear process involving five stages through which each member progressed: Potential; Coalescing; Maturing; Stewardship; and Transformation. Postgraduate geography student and supervisor engagement with different spaces was often complex, far from linear, and extremely variable.

Different entry points, characterised by increasing degrees of research experience, were undergraduate, honours, postgraduate diploma, masters, PhD and academic. At each stage of entry students or supervisors brought diverse experiences and knowledges.

Supervisors and students also exited the CoP at varying points: masters, PhD or as an academic. Some students exited the community after completing a bachelors or masters degree before re-entering it several years later, and often required a significant period of induction. Thus, a mentoring programme was established among geography PhD students in three departments. Masters and doctoral students did not generally enter geography with the intention or expectation of remaining in that department as an academic. Some moved into another academic community, in geography or another discipline, either in NZ or overseas. Very often upon completing their masters or PhD, students transitioned from an academic to a non-academic practitioner-based environment. Some students maintained limited engagement with the academy after graduation through alumni events, workshops, guest lectures, involvement with the NZGS and the like.

Sometimes students re-entered the academy at a much later date to complete a PhD while still maintaining a central role in their practitioner-related space. These students tended to occupy a peripheral position within the university in a physical day-to-day sense.

Many students, since 2000, operated at multiple levels within the academic community simultaneously as teachers, learners and researchers. Four students were supervisors of

masters and PhD research in one geography department, as well as experienced researchers and prolific publishers, while simultaneously completing a PhD. Three of these students completed their PhD in the same department where they were employed as academics, and the fourth in a different geography department.

Wenger (1998) saw CoP as essentially local, viewing wider configurations at the regional, national or international scale as “constellations of interconnected practices” (p. 127).

Postgraduate geography supervision practices of the 1990s may have largely been performed within essentially ‘local’ and strongly geographically-centred CoP. However, such localised CoP were insufficient in explaining postgraduate geography research practices after 2000 that were often located within a complex array of intersecting local, regional, national and international networks: “widely divergent conceptual and physical spaces and spheres of activity” (Lee & Boud, 2009, p. 13). Such spaces came about through advances in technology, increased interdisciplinary endeavours, globalising knowledge economies, and so forth.

Since 2000, the spaces in which students and supervisors practised and established identity existed simultaneously at multiple scales across physical, virtual and conceptual spaces. Local practices were connected into a much wider constellation of research practice communities. Supervisors’ and students’ memberships spanned different communities in different ways as each worked with non-academic organisations, participated in international conferences, and collaborated in regional, national or international research projects.

A community may be geographically widely distributed, but connected through virtual space. The virtual space created by the BRCSS Access Grid is a NZ-wide, social science academic space involving postgraduate geography students and supervisors. The INLT Geography is an international geography virtual and occasionally face-to-face community in which NZ geography supervisors and I, as a PhD student, participated.

CoP are concerned only with *how* knowledge is produced through focusing on practices (Edwards, 2005). Wenger (2006) defined CoP as “groups of people who share a concern or

a passion for something they do and learn how to do it better as they interact regularly” (para. 3). I perceive a CoP to equate to the modern version of the technical book or the typical guide books on offer for postgraduate students and supervisors – books simply focused on *how* to learn, utilise or produce knowledge. To my mind, CoP only focus on the relation between supervisor and student. Therefore the CoP notion has limited use for understanding *what* and *where* knowledge is produced (Edwards, 2005), and *by whom* or *for whom* knowledge is produced in postgraduate geography research.

I adopt the notion of generative knowledge spaces to describe postgraduate geography education in NZ since 2000. I claim knowledge spaces account for the increasingly complex practices performed within the triadic relations among supervisors, students and knowledges. These practices are both professional and social. Knowledge spaces consider not only *how* knowledge is produced, but also *what* and *where* knowledge is produced, *by whom* and *for whom*. Such spaces promote both capacity and capability building, whereas CoP are limited to capacity building. Knowledge spaces have more fluid and porous boundaries than CoP, rendering the former less exclusive or exclusionary than the latter.

While I view CoP as an important stage through which postgraduate geography communities evolved on the path to becoming generative knowledge spaces, I do not see CoP and knowledge spaces as two autonomous frameworks in which postgraduate geography supervision practices were performed. Rather, I see CoP as possible components of knowledge spaces.

7.6. Geography departments as progressive knowledge spaces: distinctive or simply disconnected?

Most supervision relations were firmly embedded within a single geography department knowledge space. The predominant knowledge spaces to which most full-time postgraduate students considered they belonged from 1993 to 2008 were those within their own geography departments. Each geography department had well defined and evolving knowledge spaces comprising some practices in common with other departments, and some

distinctive practices. Where supervision relations were positioned within a close-knit departmental knowledge space, students made a lot of comparisons about their experiences of supervision practices. Inequalities were highlighted with student comments including: *'There was a perception of unfairness. Some students had a lot of help...I couldn't have got it with my supervisors'* and *'The main thing...was differential supervision'*. Department size mattered. Students who completed degrees in departments with large numbers of masters or PhD students described the significance of shared practices to successful degree completion.

Each departmental knowledge space created within postgraduate geography education since 2000 was based on the relations and shared practices among the 'actors' (supervisors, students and knowledges) in that space. Gee's (2005) eleven elements of 'affinity spaces' are used to explain the shared practices that together formed each geography department knowledge space (Table 7-1). These spaces were conceptual, physical, virtual or a mixture.

Students and supervisors entered and re-entered, as well as exited, departmental knowledge spaces at undergraduate, masters and PhD levels or as academics.

7.6.1. Entering the knowledge space as an undergraduate

Many students developed a passion for geography at secondary school: *'I've had an interest in geography probably since high school, it's almost like a secret love'*; *'I was really hooked on geography at school'*; *'I loved geography all the way through school'*; and *'I really enjoyed it'*. Often secondary school geography teachers had been influential in students' decisions to continue in geography, for example: *'I had a good teacher'*; *'My high school geography teachers were very inspiring'*; and *'The teachers made geography really interesting and relevant'*.

Students tended to do well in secondary school geography and considered the subject relevant to their lives, for example: *'I got a bursary scholarship in geography'*; *'I did really well in geography at high school'*; *'I thought that I had more chance of getting a job -*

something environmental’ and ‘I just thought it was really relevant to the real world, the appeal of geography for me was something, I was always attracted to geography’.

Table 7-1: Application of postgraduate geography research practices to Gee's (2005) affinity spaces

Gee's (2005) elements of affinity spaces	In performing postgraduate geography research practices, supervisors and students:
1. Shared endeavours are the focus	had mutual geography interests, common goals focusing on thesis and publication production and engaged in shared practices.
2. Actors share common space	shared work and social spaces. gained different things out of the space relative to their choices, purposes and identities.
3. All actors generate knowledge	interacted with and learned from others when and where they chose. were all involved in the knowledge production process, though contributions were highly variable.
4. The space is influenced by external actions	were influenced by practices taking place beyond the space. engaged in practices beyond as well as within the space. The space was not characterised by clear and impermeable boundaries.
5. Intensive and extensive knowledges are valued	developed and displayed specialised knowledge through their own research projects. were simultaneously encouraged and enabled to gain broader, less specialised and more widely shared knowledge through attendance at seminars and the like.
6. Individual and distributed knowledge is promoted	each had something special to offer to develop a shared knowledge space. gained individual knowledge. used and contributed to existing knowledge within the space, through links to other spaces. connected or networked their own individual knowledge, allowing them to know and do more than they could on their own.
7. Dispersed knowledge is encouraged	used dispersed knowledge located at other sites.
8. Tacit knowledge is used and honoured	faced no strict boundaries from which knowledge and skills could be drawn. built up knowledge through shared practices.
9. There are diverse forms of and routes to participation	clarified and disseminated knowledge through presentations and publications. participated in postgraduate research activities in many different ways and at many different levels. participated peripherally in some respects, centrally in others. changed their patterns of participation from day to day or across larger periods of time.
10. There are different sources of status	achieved status in many different ways: scholarships, publications, awards, degrees, promotions.
11. Leadership is porous and leaders are resources	took on leadership roles. experienced vague and porous boundaries in their roles as the focus was on collaborative learning rather than rigid, unchanging and impregnable hierarchies.

Source: Adapted from Gee (2005).

Several students had close friends or relatives who were geography academics or had completed geography degrees in NZ. This motivated students to complete an undergraduate degree. One student remarked: *‘My brother actually did his masters here as well and he ended up writing his thesis the year before me’*. Another student said: *‘Having a father as a geography lecturer I knew a lot about the discipline’*.

Students commented on their positive social experiences of taking geography courses at undergraduate level: *'geography was a really social place'*. Positive experiences also related to the quality of teaching and other departmental resources: *'My undergraduate geography tutor was enthusiastic, helpful and friendly, as were all geography staff, down to earth and encouraging'*; *'I really liked the geography department where I completed my bachelors degree'*; *'I did geography in first year and I realised it was actually what I enjoyed doing, so I just carried on studying it'*; and *'The resources offered by this department enable students to feel part of the community'*.

Research, fieldwork and publication opportunities made undergraduate students feel valued members of the research community: *'I loved the field work'*; and *'I enjoyed the fieldtrips...for me geography felt a lot more practical than English or history'*; and *'As an outdoors kind of person I was attracted by the chance to take part in the field work that geography degrees are renowned for'*. One supervisor believed *'in students having the sense of being full members of the research community by publishing their results even at undergrad level'*. He recalled: *'I made a journal because I had so many high quality results from my third year paper...I even managed to get some of the third year students' work published in international peer review journals'*.

Undergraduate students also valued the broad subject opportunities available in geography. Supporting comments included: *'Being in geography you're aware of how broad the possibilities are in terms of thinking about things through the geographical lens...that level of freedom is attractive'*; *'I chose geography over politics because the range of topics that I could study in geography was much broader'*, *'geography kept my options open. I was a fence sitter in terms of human and physical. All the way through my undergrad I did both'*, and *'geography's great, because it allows you to focus on just about anything you could think of within social science...it was a neat way to combine work and pleasure'*.

Success in studies and diverse employment opportunities were considered positive outcomes of undergraduate geography. Comments included: *'at undergraduate I did well in geography compared to other courses'*; *'there were more job opportunities with a*

degree in geography'; and *'It was a subject with broad application...I could get employment in a number of different areas'*. All of these factors led students to complete a masters or PhD in geography in NZ. As one student remarked: *'all that sort of stuff contributes to why you stay and do masters research'*.

Several students felt a greater sense of belonging and community in geography than in other subjects, at the undergraduate level related to their frequent participation in residential field trips with their lecturers, tutors and peers. For many students a lecturer or course had also been significant in their decision to continue onto postgraduate study. In the words of one student: *'I found the geography department an inspirational place. A number of the lecturers really turned me on to geography. The geography department provided...stimuli and was a[n] accommodating environment. Geography had much...going on'*.

7.6.2. Engaging with the knowledge space at masters level

Most students re-engaged with the same knowledge space in which they had completed their undergraduate degree to complete their masters, because they had developed an affinity with the space. One student *'chose to continue on from undergraduate studies for a number of reasons, [including]...just beginning to get interested in the things I had been learning about, and the idea of researching about something that was strictly 'mine' was definitely appealing...The [masters] course work...really does extend you, not only in terms of your academic ability but also with respect to your employability...The department [was] extremely supportive and the wide range of studies undertaken by students and staff alike [meant] that [there was] always something interesting happening'*. Another student realised *'a BSc wouldn't really be enough to get a good job, and also three years didn't really seem long enough. I enjoyed the work I'd already done through...geography, and I enjoyed working with the staff (and other students) in the department'*. Other students *'hadn't considered going anywhere else for [their masters]'* because they *'felt at home there [in the knowledge space]'*, or *'just carried on from doing*

undergraduate’ as *‘it just seemed like an automatic step’*. Some students had an *‘undergraduate lecturer [who] was a natural choice for supervisor’*.

Additionally geography departments actively recruited high achieving undergraduate students through personalised letters inviting students to enrol in postgraduate, and the awarding of senior prizes and fee-paying scholarships. Students recalled: *‘there was lots of encouragement to apply’*, where *‘I was invited to enrol in a masters after my BA’*; *‘the geography department seemed to actively recruit. I was not aware that going to another university or overseas was an option’*; and *‘they send you a letter saying thank you and please consider our postgraduate programme...very flattering...I got the senior prize and I got a faculty scholarship and it was all geared up for me to automatically glide from a BSc into an MSc’*.

Throughout the 1990s, masters degrees in geography were either two-year degrees or a single year after obtaining honours, so students entered the knowledge space in the first coursework year. In the 2000s masters became a one year research degree. A prerequisite was the successful completion of an honours or postgraduate diploma coursework year. In the first year of postgraduate studies, with smaller class sizes than at the undergraduate level, strong bonds among students and staff emerged and close cohorts were developed that led to productive collaborative social and professional relations in the thesis year.

Students commented that *‘when you cross the line from undergraduate to graduate you can feel that you’re closer, you can talk more directly to the staff, and go to social events, and your status has changed’*; and *‘there were no divisions between staff and students at a graduate level so people knew who you were’*. Students felt in the department there was *‘a sense of being part of it, rather than a sense of strict hierarchy’*. The change in status meant students often *‘selected supervisor[s] during [their] coursework year’* because *‘he/she was challenging and “cutting edge”’* or they had *‘developed a good relationship’*.

Students reported that sense of belonging to a community depended on the number of postgraduate students in their department. Students, particularly during the 1990s when the numbers peaked, highlighted a strong sense of community among their peers (including

previous and subsequent cohort years) where the 'great social networking' in 'the department became the centre of [their] professional and social world...Students spent time together outside of the university which helped in the working environment'.

Then students 'tended to work quite well as a group...[and] there was a high field component for a number of us and so people would come and help you for a weekend or a week and you'd, contribute to others. So it was supportive'. Although as one student pointed out this mutual support did not necessarily include 'any higher academic debate'. However, the 'great group of people [led to] really awesome marks and that was because I was really into what I was learning and the department was a big part of that because the courses they put on were awesome'.

Furthermore, 'some people were really interactive in learning' and 'engaged in informal study related discussions with other research students'. This included 'brainstorming, combined research and information sharing with students who were studying similar topics', reading groups for 'sharing information about relevant literature (especially on theory and methods)', 'help with learning computer programmes' and 'reading and proofreading each other's chapters...and bouncing ideas off each other. We learnt lots of extra stuff by helping each other. Great connections and friendships were formed'.

Some students noted while there was 'a real academic push' in their cohort, they 'were a very cohesive group [who] did everything together'. Many students found that 'one of the most important parts of the Masters and getting it finished was the peer support from other students. Talking about each other's problems, and highs and lows of study made you more aware of the study environment as a whole. This informal time was very valuable'. As one student commented 'geography's always had this very supportive culture...you just can't get through geography without being a team player...we deliberately didn't like people being left out'.

Since 2000 some geography departments have experienced a substantial decline in masters enrolments with the emergence of honours programmes. Therefore as one student remembered 'the characteristic feature of the geography department at that time...was that

our postgraduate programme was very small, it was me and the relation to my supervisor. I think one of the things with [all academic staff], was in that first year of my Masters, we were basically working one-on-one in small tutorial sessions...so you did get to know them fairly well and have to engage, because there was nowhere to hide...and I think it was a different experience’.

Supervisors also highlighted *‘things go well when we’ve had a critical mass of students working in the same area who are generous amongst themselves. They help each other...and in our field subject it’s very important that they help each other out in the field...a good pro quo exchange system’.* Supervisors stressed the value and desirability of *‘the peer thing’* especially when it was *‘initiated by the students themselves...You can see two or three of them might actually get through together [complete in a timely manner] and you know it’s because they’ve actually made a conscious effort to do that and motivate themselves...they’re augmenting’.*

Further support was provided by supervisors who intentionally *‘set up buddy systems between two students where they read each other’s draft before it [went] to the supervisor’.* As well supervisors and colleagues supervising similar research organised frequent *‘graduate seminar series’* for students to get feedback on presentations and discuss general supervision issues. Then *‘social events [were] really important too...Sometimes organised by [supervisors], sometimes by students, where we [got] together and [had] some fun and at the end of each year [I’d] organise a dinner, with postgrad and third year students’.*

Since 2000, students felt disappointed that the departmental knowledge spaces were *‘losing all the communal spaces. All of the labs are going on campus. We are losing geography as a spatial heart and that is not a good thing...that’s one of the things...knowing that you will come to a space that is geography’.*

A number of students who completed their masters theses since 2000 suggested how supervisors could have broadened their access to further knowledge spaces. Suggestions included: *‘encouragement to go to conferences, to publish and to think about career*

options, on a personal one-to-one level, would have been helpful’; and ‘staff talking more about their own research and external networks’ would have been valuable.

In preparation for exiting the knowledge space to enter the workforce or to commence a PhD, supervisors encouraged masters students *‘to participate in the broader academic life of the department rather than just focusing on their thesis itself’*. They also encouraged masters students to act as professionals. One supervisor commented *‘I do remind masters students that it is about professional opportunity, and to dress and speak like, and take on the persona of the person who has got the job; to respect themselves enough, to be confident enough, to model that future they’re trying to bring themselves. I also encourage them to not see themselves as just students, [and when in] interviews say, I’m a researcher. You’re already thinking out these issues, far beyond what most people in the society are doing, so you’re not just a student. That helps to build confidence and model ways of thinking that are going to be useful in job interviews.’*

Above all, in the geography masters knowledge space strong bonds were developed between cohort and academic members. These bonds continued beyond academia. Students commonly spoke of the *‘great group of people’*. In many cases this network assisted masters graduates to find subsequent employment. One student recalled the *‘amazing’* NZ masters cohort and the department where she felt *‘a valued part of the community’* and stated *‘these things do not exist in the same way where I am doing my PhD [overseas] and have made me realise how valuable and quality my masters experience was’*.

7.6.3. Contributing to the knowledge space at PhD level

Prior to 2000, most students ventured overseas to complete their PhD, as supervision expertise and other resources in NZ were limited. From 2000 to 2008, there was ongoing debate regarding whether all of a person’s degrees should be completed at the same university, or within NZ. One student remarked: *‘I remained in NZ to complete my PhD because I wanted easy access to the supervisors and interviewees, documents and field, and my job was in NZ. In hindsight there is at least one NZ university that seemed...[since*

the 1990s] to only appoint people who have done their PhD overseas and it would have been possible to do it much cheaper overseas and been based throughout in NZ and that is the way I would have done it if I had realised in time'. However, other students supported the notion of 'doing all of my degrees at the same place' although some students noted 'this is a little bit unusual I guess these days. I don't know if it's a good [thing]' and 'some people say you shouldn't do your masters and PhD at the same university, but I found that was ok'. One student was certain about his decisions regarding the place and space of his learning: 'I hung onto [this university because] I liked the department and the people there, had the networks and recognised the significance of being networked, and wanted to stay in those networks'.

In the 1990s, with smaller numbers of PhD students 'there was very little opportunity for [students] to discuss ideas with peers [as they were quite] a disparate bunch...[with] very little overlap really'. As well, one student found the expertise in 'the pool of people in the department, or even in other departments of the university was fairly limited in [his research] area'. Another student reported 'there were probably opportunities to engage with grad students from other departments through Student Learning Centre initiatives that I didn't take up, through writing groups and the like...but you know I tended to prefer a more independent focus'.

Since 2000 a high proportion of students returned to university to undertake a PhD when they were mid-career, after several years of work experience and typically with 'full-time employment with a full workload'. One student commented 'with my PhD I'd been away for six years. I came and spoke to my supervisor...identified a potential area...where my interest had moved to, which is quite different to my Masters research'. These part-time and distance students do not tend to develop a strong sense of community within their respective departmental knowledge space as 'part-timers have too much to do to spend much time with others. They often get overlooked by administration teams and staff if off campus and not regular visitors'. Their sense of community and knowledge space was generally more strongly associated with their place of employment.

Since 2000 students were often fast-tracked to a PhD following completion of a first-class bachelors honours year or through the upgrade of a masters to a PhD. One student commented: *'my project started out at Masters level but was upgraded to a PhD. I had intended to travel overseas to do a PhD but stayed [in NZ] because of the excellent supervision I was receiving...I've enjoyed the collegial support from staff and my postgraduate student colleagues in the department'*.

From about 2003, positive benefits emerged from substantial cohort groups of doctoral students where *'the whole geography department was a very social environment'*. Good relationships developed with fellow PhD students *'at the time, and we did encourage each other ...[with] a really close working relationship and we really helped each other through and it was very, very valuable. We're still colleagues today in our different organisations. [Two of us] wrote papers together'*. Another *'positive benefit...[was] people [were] finishing on time'*. One particular cohort of students, without academic staff assistance, even *'generated some...initiatives themselves, (sharing) seminars about theory or whatever topic was needed'*.

Greater PhD numbers meant these students had to be housed in *'bigger offices, whereas originally they were in offices of two or three'*. Supervisors liked *'the fact that there [were] no longer individual offices for PhD students...It built a cohort which we [hadn't] had...it's made a huge difference in terms of the sense [of] a PhD group. In part that's numbers...but I think stabling them together has been excellent; particularly with international students with different backgrounds and so forth, there's a sense of togetherness'*. Although there can be *'a problem with distraction sometimes [it was] probably not a bad move for the support [students] give each other'*.

The importance of this *'sense of togetherness'* was noted by one student: *'the friendships I developed with...my graduate colleagues were fundamental in getting me through...I could talk about those things that I didn't necessarily want to talk to [my supervisor] about; and geography is great for that kind of collegiality that goes on at a graduate student level'*. One supervisor added *'well my first thought of [students'] socialising, is actually about*

mutual support and interaction...I think it's great if you have a group who interact with each other. You look at [a student's] acknowledgements...these are the people who contribute even though they don't have any responsibility to contribute to this thesis. [Then there's] all the interaction...the seminars...and the kind of bonding with other students that took place, even though a social thing it [was] also kind of an academic thing in terms of support'.

One student also commented about supportive relationships formed with academic staff beyond supervisors: *'I had a good relationship with the head of department at the time...he was a kind of a mentor and looked out for me. Good support...[came] from two other members of academic staff...and other supervisors from [another university and an external agency that funded the research]'.*

Maintaining a sense of community among doctoral candidates was often more challenging than for masters students. Doctoral candidates in NZ started and completed at uniquely different times (as they could enrol on the first of any calendar month), could be enrolled part-time and predominantly researched off-campus and often at a distance, including overseas. Many doctoral students commented that *'the PhD can be incredibly isolating and to have...[supportive] people is important to go on the same journey'.* In NZ the PhD has not traditionally included any taught course component. One student strongly believed that *'a PhD should be a lot more structured...like the north American model where you do papers as part of it, and I think that would have been really, really helpful if I could have done that'* to build relationships with peers.

Where the sense of community was strong, PhD candidates found *'other students around [them] were going through the same thing at the same time, and [they] had a very supportive community of scholars...with beyond that the wider community of academics, within the geography department. The ability to talk to people about ideas was very, very useful'.* As a student said *'from a PhD point of view...conversations were less formal discussion...more just a reality check when you're kind of feeling a bit down; or having a*

chat to someone about the process and getting things in perspective...[more] moral support'.

Supervisors talked about getting *'students more internationally connected, so their work [could] be seen very much on an international stage...getting students to stay in NZ to complete their PhDs while still gaining international connectedness. I get my students to make presentations at conferences from early days. I had honours students presenting at the geography conference in Wellington'*. Students spoke of *'opportunities to go to [and present] at conferences in Japan...and also at the NZ Geographical Society conference'* plus the chance to *'guest lecture'* in their own university.

There were challenges for students who entered a geography knowledge space from another discipline or another institution at the PhD level. These included the need to adapt to the expectations of a new community while *'not knowing either [of their supervisors] beforehand...[with the associated challenge of proving oneself] academically. And then there were challenges of making friends amongst your fellow colleagues, and that's one of the abiding memories of [the PhD years]...those friendships I developed during that period'*.

Seminars were expected of PhD students. Some supervisors urged all geography staff and postgraduate students to attend the student seminars because they would *'realise not only what other students [were] doing, but what other supervisors...colleagues [were] studying or...which direction they're directing their students...in subject content, political relevancy or social relevancy'*. As well, there is much to learn *'about the academics [as many of them have come from] outside our programme'*.

Students reflected on the various opportunities provided by the geography knowledge space. Some PhD students felt valued by, and learnt from, the opportunity to participate as part of the selection process in *'a group meeting with [the candidates for a professor's role]'*. Other students recalled *'a policy whereby all PhD students got a certain amount of money...for overseas conferences every year'*; where one student experienced *'very good networking opportunities [which] led to a job'*. Another student nearing the end of his PhD

welcomed the *'key networking experience [of] being on the organising committee of an international conference. [These] networks have continued afterwards, both here [in NZ] and with various people internationally'*.

Certain practices were seen to not only demonstrate membership of the geography PhD knowledge space and give it visibility, but also assist students with completing their doctorate and securing subsequent employment. One student noted *'it would have been quite useful if I'd been pushed a little bit more into actually doing some concrete papers that could have been peer reviewed and published...I think that would have helped then in those early chapters'*. Another realised that *'one thing that would have put me in a better position to control my own destiny would have been to have published more through the PhD; which would then have put me in a position to have been able to say: I'm going after this job or that job'*.

One student returned to university as *'completing a PhD was a necessary step in a research career...that it was in geography was incidental. I had not taken geography as a subject at any earlier stage in my university studies'*. Such decisions sometimes related to the availability of a specific supervisor. These students tended to exit academia after completing the PhD as they had remained in a full-time research position throughout the doctorate.

7.6.4. Resource provision for productive knowledge spaces

Students felt highly valued in their departments based on the resources provided for them. Supervisors talked about *'providing physical space in the department for grads...so they can physically interact'*. Postgraduate students were generally given their own or *'shared work office and computer space'*; and *'a shared staff and postgraduate student common room'*. Some universities had their own geography library which gave the department *'a focal point and a heart'*. Students appreciated having a workspace, although several PhD students initially felt *'reluctance...[with] the development of shared spaces'* when cohort numbers increased. However they admitted that *'ultimately...[these] proved beneficial in*

terms of developing collegiality'; and 'It was at that point that the PhD community became an identity. Now it's a huge community. It's really nice when the new ones come along and the old ones show them the ropes'.

Thus, both provision of physical space and a sense of community were important to students' identity with each geography postgraduate knowledge space. Students noted that social occasions for staff and students organised by the department were '*proactive*' and '*empowering*' where, for example you could '*sit down...with academics who weren't your supervisor. [This removed you from your] routine with your own supervisor where you don't necessarily discuss things which need to be discussed, and you assume things and you're not necessarily having to clarify what you're thinking...[It made you] feel that your research was important...realising that you're essentially in a collaborative research project with somebody else who you've always thought about as only your lecturer*'. These social gatherings also built capacity-capability of the on-going knowledge space when, for instance a masters student met his future PhD supervisor.

Students also found the community to be very supportive in providing '*funding to go to conferences and things; and the institutional funding for field work that students [could] apply for*'. Then, during and/or on exiting the community students reported that '*when [we] wanted to do a summer scholarship [at another university] and apply for a PhD scholarship*', or '*when (we) finished up our studies and started looking for work [the head of department] was one of our referees. And [our supervisors] are still referees that [we] use*'.

One student related how social gatherings allowed first year masters students to meet '*all the cool guys who were second year masters*' and although they were '*busy trying to finish everything*' they would still '*talk to each other regularly*'. But this student felt that apart from weekly social events and its '*open door policy*' the geography department '*didn't really offer a lot*'. Another student said that the PhD years were '*very productive; very exciting; very rewarding years*' and he had '*made a series of friends there that will stay with [him] for a very long period of time*'.

There were some staff members who were *'really significant'* in making students *'feel part of the community'*. *'The geography librarian was brilliant...the saviour of all postgraduate geography students'*. *'[One senior tutor] knew everyone who went through that department by name'*. *'The head of department...[would stop] you in the corridor, talk to you about what you might be interested in, suggest that you do these things...It was just amazing'*. *'Then my masters supervisor...I found to be really influential in terms of that additional support that he offered. I feel I can talk to him as an equal, and actually most of the other staff as well'*.

However, the size of the community impacted on the knowledge space for postgraduate students. In *'a very small post graduate population...[one student] was sort of by [him]self'* as a masters student. Then as a PhD student in a *'large and vibrant post graduate community [of another university]'* he noted *'the real joys of...having those colleagues around you who were doing their PhDs or their masters...and whilst we were doing different topics...[there was] that sense of a shared endeavour'*. In larger communities *'there was a great opportunity to talk to a range of people about issues, not necessarily on a formal basis, but certainly around morning tea or just in the corridor, it was actually being in the place. It was another very effective, probably under-recognised part of the [postgraduate] process'*.

Arguably postgraduate pedagogical practices, expressed as the relation among students, supervisors, the knowledge produced, spaces and time were important aspects of postgraduate geography education. However, broader research practices within the geography department or school serve to support and enhance the supervision relation. Supervisors expressed how supervision practices might be supported within broader arrangements. One said:

'so it's that delicate balancing act as a supervisor, of providing initial independent guidance, individual guidance to your students but at the same time encouraging them to share skills and experiences, trading off time in the field and working out arrangements amongst themselves and kind of like that friendship for life stuff that comes out of that whole process, which you know in any field oriented school programmes, you can't do stuff on your own, you need to be part of that kind of

arrangement anyway. I think that those informal things are more important than the formal things; I don't think it's possible to institutionalise those arrangements. You can encourage them as an institution, but I don't think you can make it happen'.

Another supervisor recalled how several supervisors organised :

'Graduate research seminars...[where they got all their] students together,...and one student [gave] a presentation and we all [gave] feedback and [had] a discussion and also...that opportunity [was used] to do group supervision, talking about issues that relate to everybody. It creates a sense of research community and students are less isolated or feel less isolated'

In considering the significance of broader institutional contexts to effective supervision practices one supervisor was:

'encouraging [students] to be part of a broader academic community and understand what it means to be part of a broader academic community...in [promoting] effective practices...so people learn what it means to be an academic, rather than what it means to be a kind of individualised PhD student...and I think I've seen my students learn from that in really important kinds of ways'

7.6.5. Research teams: effective knowledge spaces?

Since about 2003, with increased numbers of honours, masters and doctoral students per supervisor, it became common for supervisors to form research teams. Supervisors noted this practice was very effective in physical geography where students were more often engaged in similar topics, and *'physical geography students tend to be closely tied to their supervisor's research interests and projects'*. Research teams fitted *'the particular sorts of research endeavour...which are quite resource and equipment intensive; so they require a team of people to do [the research]'*. Therefore *'in [this] field it's characteristic for field work to be shared and the work is tied up with a strong research team'*. These larger research teams, typically comprised supervisors, research fellows, post-doctoral fellows, doctoral candidates, masters students and/or honours students. There was a high degree of collaboration and strong sense of community. Students benefitted where their research *'was part of (a) supervisor's funded research project...[and] there was funding to work as a research assistant after completion of the thesis'*.

One supervisor criticised *'situations where, in large research teams, the supervisory process is a filtered process where senior postgraduate students notionally supervise those at a junior level...[explaining]...I don't think that's appropriate because those individuals have neither the experience nor responsibility to do that...I see [it] happening a lot, partly because some supervisors have too many students and they can't manage the process properly. It's ineffective and it's not right by the students'*.

In human geography, supervisors observed *'where research topics were quite disparate'* team work was *'often more challenging'* and although *'there [was] a lot of social interaction, [there was] not a lot of co-operation'*. Nonetheless, supervisors sometimes developed working groups or teams that focused on how to do the research and interpret the findings, especially where projects had theoretical or methodological similarities. One student described *'five or six student ...working on quite similar topics...[with] shared offices, ...[that] were all in one part of the department'*. One human geography supervisor mentioned there had *'been the odd occasions when another supervisor and I had students working on similar topics and [we] had some joint sessions with them, but not very often because [numbers have decreased with] a lot of our students...[going] into development studies'*.

Another supervisor identified the *'value in using peers and supervisory teams [as] supervisory relationships that are very bilateral seem to preclude the richness of multi-lateral involvement'*. He recalled the 1990s period in his geography department *'when we insisted on having secondary supervisors at masters student level'*. That worked well for him, as supervisor as it was *'good if you study with peers as well, if you have a group of students to manage together around research teams'*.

These research teams had *'informal, regular seminars where students talked about what they [were] up to and...shared their work with each other'*. *'[A number of students] were the backbone of the seminar series along with a few staff...This sharing of ideas didn't substitute for supervision but...we at least put people in the same room'*. Then, even if students were *'working on independent things...[some supervisors] brought them together*

and published something. So...those symbiotic relationships emerge[d]. This supervisor noted *'that kind of vehicle work[ed] very well. These are prospects that might be resurrected'*.

One supervisor acknowledged *'research is increasingly team oriented and you learn so much more from each other'* and thus his *'supervision arrangements'* had become more *'informal'*. Students recalled *'it was good to have other people who were working in a broadly similar area that you could compare the way you were approaching [research], looking at some of the literature they were using and having a chat about how you're progressing and potential problems'*.

7.6.6. Institutionalised knowledge spaces

Formal policies and procedures imposed at the university and school/ department levels influenced the movement of masters and doctoral students into and through the knowledge spaces and provided the contexts in which supervision practices were performed.

Supervisors described these procedures as *'formal mechanisms for proposals and for making sure students [were] of an appropriate standard to continue in their work, and...formal reporting procedures...they're all part of professionalism'*.

Students reported they were engaging first and foremost *'with the department that was channelling the university's policies through their own lenses to us, so our vision stopped at the department'*. *'Quite a lot of co-ordination [was] done by the school'*. *'For masters students there [was] a research preparation seminar and courses...and everybody [got] a chance to check out what everyone else [was] doing.'* *'Everybody at masters and PhD and staff contribute[d]'* to the seminar series. Supervisors explained they *'set up...[the seminars]...as a conference environment, so [students got] exposure to that'*. Students found *'the engagement from the wider academic community in the department [at these seminars] was useful'*.

There was less evidence of reflective research practices in the 1990s than after 2000. Many geography supervisors readily admitted that in the 1990s they did not *'do much navel*

gazing in terms of practices, including having discussion among colleagues'. This changed after 2000 with *'graduate advisors who pushed that a little bit more and spelled out the practices quite clearly'* together with *'the over-riding deputy director, associate director...[who] had clear policies for supervisors and students to follow'*.

7.6.7. Tutoring and other employment within the knowledge space

Geography departments made employment available to postgraduate students in teaching assistant, tutor, lecturer, course co-ordinator, research assistant and various administration roles so that students could have valuable opportunities to apply their knowledge and skills in the department while focusing on their studies. Teaching was viewed as an important role in terms of the positioning of masters and PhD students within departmental knowledge spaces. Students recalled while they were *'in tutoring roles, wrote tutorials and provided support for staff research projects'*; were *'marking essays and doing lectures for stage one'*; and *'demonstrated within the geography department'*; they were still able *'to concentrate on study'*.

Mostly, students commented on the value of the teaching experiences in terms of their future careers in academia or as secondary school teachers. They gained *'experience in the wider craft of academia'*; and *'developed some higher level teaching skills [to add to their] CV, as you don't want to just have a PhD in your CV'*. One student spoke of giving *'guest lectures on [his] PhD research'*; and another related how *'the skills gained...[have been] passed on to high school students'* in his roles as a geography and social sciences teacher.

However, a number of students commented that they had to ensure that teaching activities did not have *'a strong negative impact on [their] PhD progress...[if they] spent most of their time teaching undergraduates'*. Frequent comments included *'the tendency for grad students to take on paid employment affect[ed] students' ability to do their own work'*; and *'tutoring took all my time and resulted in lots of inconvenient interruptions...[with] a lot of tutoring and essay marking and that sort of stuff'*.

While one student realised that postgraduate employment was *'helpful to the department, and there are always issues around people being used too much...and that impacting on theses negatively'*, he felt *'on the whole it's fantastic'*. If the *'PhD [is seen as] an apprenticeship into an academic career, [then having] the opportunities to learn the craft of teaching [is important]'*.

7.6.8. (Re)negotiating the knowledge space terrain as an academic

Some supervisors gained their experiences from having been a student and completing their PhD within the same knowledge space in which they were subsequently employed as an academic. These supervisors were *'really happy to have the chance to recreate all of the things that [they] enjoyed about being a student in geography in the role now, as a lecturer and supervisor'*. One supervisor realised *'the PhD, the thesis itself and the experience of doing the research...and the broader sense of the craft of an academic which is not simply research, but...teaching, interaction with students, management of academic life which I...started to develop in the last year of my PhD life; that was one of the real strengths when I reflect back on it now, that's really stood me in good stead as I've moved on'* to an academic post at another geography department in NZ.

Several supervisors entered the knowledge space having had experiences in other academic knowledge spaces or after several years in the workforce. Experienced supervisors felt that *'sharing of experiences and mentoring programmes would be good...in the early days when (these) new staff had just arrived'*. Co-supervision with more experienced supervisors was also seen as a useful mentoring practice for new supervisors. One supervisor *'really liked [the idea of] exemplars of best practice, if there was something that could define what was good practice...not a prescriptive cookbook thing, but [examples you could] communicate to staff'*.

One supervisor thought the sharing of experiences and mentoring was difficult across the diversity of a geography department where somebody *'works in more of a remote sensing GIS domain; relative to somebody who works in a qualitative research domain; relative to*

somebody who works in a scientific field data collection domain; relative to somebody who works in a laboratory design domain; [which] would give quite different approaches to expectations, approach, the way you develop ideas. Research really is about ultimately conveying all those kind of things’.

For supervisors there was *‘a real worry about the different qualities of supervision, the different supervisory experiences’*. It was felt supervisors *‘didn’t ever sit around and talk about supervision as staff; we don’t talk about inequities in terms of access through the networks of particular supervisors that particular students have, so there are some real inequities in terms of: access to funding; access to networks, both at masters and at PhD level; and the students see that because that’s part of their day-to-day basis; so it’s probably part of a decision they make in their choice of supervisor’*.

7.7. Academic geography as a national knowledge space

With only six universities in NZ where geography is a prominent academic discipline it seemed reasonable to assume that a strong knowledge space would exist at the national scale, or, at least, that such a knowledge space would encompass more than one geography department. I expected to find evidence of postgraduate geography as a national knowledge space where *‘the whole is greater than the sum of the departments’*.

One supervisor commented about BRCSS (funded by the NZ Government Tertiary Education Commission) being such *‘a good initiative for the social sciences...[where] it’s a good thing to sit down in that room...and see that there’s somebody doing a similar project in another NZ university’*. However, empirical evidence showed very little interaction and sense of community among postgraduate students across any of the six NZ geography departments.

NZ geography cannot yet be described as a functional national knowledge space. This probably reflects the lack of interaction and collaboration amongst academics in the competitive PBRF environment. PBRF models have discouraged students from enrolling in masters or PhD degrees across universities. However, this contradicts a political agenda

that promoted the capacity and capability building value of collaborative research endeavours through efforts by the NZGS, the BRCSS Network and geography academics.

Supervisors and students suggested two opposing reasons for the lack of development of a NZ-wide postgraduate geography knowledge space. In smaller departments supervisors and students struggled to even maintain a viable local knowledge space, particularly where many postgraduate students spent limited time on campus. In larger departments postgraduate cohorts were often substantial enough that students did not perceive the need to collaborate with peers beyond their department.

7.8. Globalising geography knowledge spaces

With globalising higher education and other processes and rapid advances in technology, knowledge spaces associated with postgraduate geography research became more global: moving toward a global geography community. This was most evident in doctoral research.

Since 2000, supervisors made significant effort to get students internationally connected and networked. This was through conference, symposium and workshop attendance and participation; publication in international journals; making digital copies of a thesis available on the Internet; and spending time overseas engaged in fieldwork or other activities. *'Attending and presenting at conferences [was seen by supervisors as] quite important to assist with building connections...because in the end you do want to have people outside of your immediate supervisory team to act as referees and contacts'*.

Students listed their global networking experiences as: *'wider experiences as offered in conference presentations [nationally and internationally]'; 'publications [articles, book chapters]'; 'thesis...cited in the international literature'; and involvement 'in an ongoing international project [where] contacts [were made] externally and people [were] aware of what [had been researched]'*. Students enthused that *'it was massively powerful to go overseas, to see that other people were doing work similar to what you were doing, to meet these people that you've placed on a pedestal and read their work and been influenced by their work; and to realise that this was a network that you could actually be part of. It was*

really powerful to come back feeling inspired by that exposure, and the belief that your work was going somewhere’.

In one student’s case an agreement between his NZ university and another overseas, *‘allow[ed] [him] to be enrolled [overseas] and for students from there to come and have exchanges [in NZ]’*. Additionally, his supervisor had *‘a long history of working in [that country], and [had] quite strong connections to some researchers over there’*. These relationships were *‘key to [him] being able to do [his] research...[then] ...there were a couple of guys who were working on the same kind of thing, and they were hugely helpful; both in helping me to organise research, and guiding me through being in a different country as well’*.

7.9. Contextual influences and tensions within and between knowledge spaces

A number of contextual factors influenced the performance of postgraduate geography practices within the various knowledge spaces described above. Over half of the supervisors interviewed commented that the implementation of the PBRF in NZ had made the greatest impact on postgraduate geography practices.

Supervisors’ views of the PBRF were that it *‘is wrecking supervision quality, because it tells staff, you’re wasting your time with students; in fact the Associate Dean for Research in this faculty has told staff here that the only purpose of postgraduate students is to increase and improve your PBRF rating; is to use postgraduate students to get you more papers. And I fundamentally disagree with that but that’s the culture that’s here. I see it as my job to help people get a great career. I don’t see supervision as their role to help me improve my PBRF rating’*.

Then at the same time: *‘the PBRF environment devalues supervision...The effects of the regulation changes around the PhD mean shortening and pressure for completions that can create confusions and frustrations for candidates and impact on the quality of their work...The current funding environment means that there are both opportunities and*

pressures on PhD completion...I have to juggle more things to fit in adequate supervision'. The pressures were recognised by another supervisor who stated 'my experiences and outcomes could be forced into what I perceive to be the desired mould [rapid turnover, high academically recognised output], but I am not sure if that is as valuable to me or society. It is probably valuable to the university in terms of it being a money making entity'.

Furthermore: *'students are now being processed through a productivity machine rather than being exposed to academia in its broader sense', while this 'imperative to publish, publish, publish, discourages collegiality [and] has an indirect impact on students. Students should be coming into a system where they can see a collegial discourse and interaction between academic colleagues. Increasingly they are not seeing that'. As well 'we're expected to do more and more, and take on more and more PhDs and masters students, we have had to "cut our cloth"...being a little less giving in terms of time to students over the last year and that can only get worse, particularly if we take on students that we'd rather not take on. How you then deal with each extra hour that you're giving to that student is impacting on your career, I don't know how long I can sustain that...I'm feeling it now'. However, supervisors still felt it was 'an important role of staff to be around, to try to attend some of those...[social]...things, so that students [didn't] feel...[there was] a rigid hierarchy'.*

Further negative aspects of the PBRF on the geography community were highlighted by a supervisor as: *'the drive to take on more students impacts in several ways. We find ourselves increasingly as active recruiters of grad students to preserve our throughput rates; we compete [amongst ourselves] for our own students to see who's going to supervise, I see the cherry picking of the top students likely to become quite problematic...[as students go to] people with money. And I think the university has got a very big problem it's facing around how it pulls people together, rather than [having] a whole pile of individual projects...we're no longer [all] committing to discipline. I don't know any of us who are committing to [the best interests of the] institution, that the university is something we would act for...So everyone's acting in either their students'*

best interests or their own best interests and I think that's hard. I don't know how you can build careers; I don't know how you can build relationships among colleagues; it's a highly uncollegial or un-corporate structure and one or two of us are still committed to these...It's incredibly depressing, I mean I still retain some commitment to geography as a discipline and I get involved in various things that do that...and at whose cost am I doing this, it's all my cost; but I couldn't imagine working in my own interests; it would be lonely, then every decision has to become a cold, calculating one; and if you get something wrong, how horrible would that be? So I don't just see where collegiality or [the] corporate university is'.

Supervisors commonly voiced how the lack of preparedness of students impacted negatively on their supervision practices: *'I don't think our students are well enough prepared often to tackle masters or PhD projects. I don't think they're theoretically prepared. I think it's a real weakness in our programme. I mean there are a lot of compensatory strengths'*. As a means to improve preparedness, one masters student commented on how he *'could use that first year to do some kind of preliminary work...the papers that were available to me to do in the first year were flexible enough that you could pick research topics for those papers that you could then use and build on'*.

Two further contextual influences and commitments that impacted on the postgraduate knowledge space were *'the introduction of year round enrolment'*; and *'increased levels of [students'] part-time employment'*. Supervisors found these factors *'made programming of joint sessions...[for these] students much harder as [they were] at quite different stages in their research or [could not] get together at any particular time'*.

Part-time students felt that *'most academics have done their PhDs as full-time students and...seem unable to understand the nature of the time and energy and financial constraints of part-time students'*. One supervisor commented that *'too many students are getting to do their PhDs as part of work funded by their employer in CRIs [Crown Research Institutes] these days. I am not sure these should be considered PhDs, they are work products'*. Supervisors thought the fact that *'the candidate was attempting to do the*

PhD project alongside a fulltime job [was] a sign of the times. Students often [had] to make a living as well as completing higher degrees and this [was] a marginally tenable activity’.

Some supervisors reported that knowledge spaces have changed significantly with the influx of international PhD students since 2006. *‘The main issue is the flood of international students, many of whom are insufficiently prepared to be PhD students, even if they ‘pass’ on paper’.* Then *‘senior managers are...[setting] high targets for international postgraduate numbers but insufficient resources are being put into helping both them and us, with the result that hours are wasted correcting English at the expense of discussing ideas’.* As well, supervisors felt *‘doubtful of supervising students who come here from their own country, return there for fieldwork and are hard to ‘supervise’ as a result, in any meaningful sense’.*

Some students commented that some universities *‘really [made] a commitment to groups that are marginalised [for example in the area of] gender...and in Māori geography’;* and one university *‘both enhanced the ability for women to be involved in different kinds of ways...for instance in [the] case where I had a young family but also in the case of Māori students who were able to write in Māori and have their work examined’.* Other students felt that *‘practices of gender discrimination and...the lack of recognition of the racialisation of some practices [were] not given enough attention’* in their university.

There were also contextual factors concerning *‘the uncertainties around the [future] of geography, especially human geography...impacting on the supervision process’.* The restructuring uncertainties that affected graduate students were: *‘where’s the discipline going? What are they signing up for? And by the time these PhD students are finished will there be a discipline? So what of the future employment opportunities for increasing numbers of geography PhD graduates?’*

7.10. Summary

Space, place, changing status, time of entry and department size mattered for students' sense of belonging to a community and the collegiality to build a strong culture. Strong academic and social community cultures provided the foundations for progressive knowledge spaces. Students who entered later than their colleagues into a knowledge space found it took time to fit into the culture. In departments where postgraduate student and staff numbers were large, added benefits arose from students supervising students, supervisors supervising supervisors, and students supervising supervisors.

Communities of practice, focusing only on the capacity building elements of how knowledge was produced, may have sufficiently encapsulated supervision and other research practices of the 1990s. However, by 2000 postgraduate practices operated within broader and more complex capacity and capability building knowledge spaces that accounted for how, where, what, by whom and for whom knowledge was produced. Such spaces were a blend of conceptual, physical and virtual; arising predominantly from advances in technology and the globalising knowledge economy. Gee's (2005) elements of an affinity space were useful in providing a broad summary of how shared practices were performed within department knowledge spaces.

Supervision relation and geography department knowledge spaces were those spaces with which full-time postgraduate students had the greatest affinity. Part-time PhD candidates tended to have a greater connection to their workplace knowledge spaces than to academic geography departments. In such situations, academic and non-academic knowledge spaces often became complexly intertwined, resulting in significant co-learning for both supervisors and students. A NZ-wide postgraduate geography knowledge space was never strong despite efforts of academics and the NZGS. International geography knowledge spaces, encompassing NZ PhD students' participation in international conferences, have become important over recent years, and there is evidence of a globalising geography trend. NZ geography departments have also become increasingly international knowledge spaces through rising international PhD student and visiting academic numbers.

In chapter eight I examine the ways in which postgraduate geography research has both operated at, and traversed the borders within and between the various knowledge spaces revealed in this chapter.

Chapter 8. Capacity - capability potentialities of geography's frontier work at and across borders

(I)nterdisciplinarity...has come to be seen as a solution to a series of contemporary problems, in particular the relations between science and society, the development of accountability and the need to foster innovation in the knowledge economy. (Barry, Born & Wieszkalnys, 2008, p. 21)

The erosion of boundaries and the permeability between the university-based research system and other societal sectors cast doubt on the claim of the conventional academic-disciplinary doctorate by thesis as being the only or best way to train researchers for the knowledge economy. Changing incentives for problem choice, the mix of research, attitudes and responses to public-private partnerships and spill-over, will affect the rules and rewards that govern the academic commons. Sooner or later, changes in the way research in universities is organized will ask for changes in the structures and practices of research training as well. (Enders, 2005, p. 128)

So...

(H)ow do we prepare students for ever more interdisciplinary collaboration? The result of our research and self-reflection should...ultimately benefit students and better prepare them for decision-making in society...If the latest emphasis on interdisciplinary education...helps students think about problems holistically, then let's by all means keep building these bridges...and foster...students who learn how to learn, and who become lifelong thinkers and learners. (Kerski, 2005, p. 156)

By adopting a...perspective...of assembly and multidimensionality, in which different actors, human and non-human, interact and negotiate, through practice...we open a terrain of investigation that resists mono-ocular explanation. (Buller, 2008, p. 396)

8.1. Introduction

Bordering, border work and border crossing are both disciplinary knowledge and habitual practices to geographers. Traditionally borders have been tied to a sense of belonging and identity for people in relation to the natural environment. Geography's strategic concern

with borders in relation to space and place can be considered a distinctive unifying practice within academic geography.

Not only was postgraduate geography research undertaken at, and across borders, it also operated at the frontier of knowledge production borders. Such positionings have enabled researchers to better address complex contemporary problems. The above quotes from Enders (2005) and Kerski (2005) demonstrated two of the borders at and across which postgraduate geography education practices were performed from 1993 to 2008 to promote research capacity and capability building. These were the academic/non-academic divide, and borders among geography and other disciplines.

In this chapter I consider the ways in which postgraduate geography education in NZ from 1993 to 2008 was concerned with bordering, border work and border crossing. I explore the complex relationships between postgraduate geography knowledge production and the persistence of various academic and disciplinary borders. I argue that border work and border crossing was a distinctive and strategic practice that geography supervisors and students performed, which had the effect of maximising postgraduate geography's research capacity and capability building potentialities.

I begin by discussing how for geographers, for whom space and place matter, border work and border crossing are both knowledge and practice. Firstly, I provide an overview of the ways that postgraduate geography education in NZ has been concerned with these activities. Then I discuss border work and border crossing within geography. This includes not only the border that divides human and physical geography but also borders between different sub-disciplines of geography such as economic geography and political geography. Thirdly I outline evidence of postgraduate geography work across boundaries with other disciplines or in the knowledge voids between geography and other disciplines. Next I describe work at, and across the divide between academic and non-academic sites of geographic and other knowledges. I show how a number of contextual influences, including university academic structures, research funding applications requirements and the PBRF acted as opportunities and tensions to postgraduate geography knowledge production at and across borders. Finally I summarise the implications of this border work

and border crossing in postgraduate geography education for capacity and capability building.

8.2. Border work and border crossing knowledge and practice in postgraduate geography education

Borders, boundaries and the processes of bordering and bounding, that are performed to create borders or boundaries have traditionally been used in geography to delineate and identify categories such as space, place and identity. Jones (2009) distinguished between boundaries and borders. He saw the term boundary “to be a broad term that refers to any type of division whether it is a semantic divider between categories or a line-on-the-ground political division ... [and reserved] ... the term border specifically for the latter case of territorialized line-on-the-ground political borders” (p. 180). However, across the geography and other social sciences literature the terms boundary and border have often been used interchangeably. Literature concerned with inter- or cross-disciplinary endeavours has consistently used the terms borders, border work and border crossing rather than the terms boundaries, boundary work and boundary crossing when referring to the divides among disciplines. I see boundaries as inward looking and representational whereas borders are outward looking, enabling generative performativity of practices into and across ‘previously uncharted’ spaces. Therefore, in this chapter I adopt the border ‘family’ of terms.

Geographers traditionally understood borders as constituting the physical and highly visible lines of separation between political, social and economic spaces. Only more recently has it become understood that it is *bordering processes*, rather than the *border per se*, which affects our lives on a daily basis, from the global to the national and, most significantly, at the local and micro scales of socio-spatial activity (Newman & Paasi, 1998). Here I extend the application of border, border work and border crossing concepts to include physical, conceptual and virtual spaces of postgraduate geography knowledge production. The associated knowledge borders, as with all borders, are always in the making as the products of on-going processes of *bordering*. This occurs where international organisations, central

governments, economic actors, universities or academic discipline practitioners engage in official strategies to protect their knowledge production territories (Harlow, 1994). Socio-spatial bordering also relies upon everyday practices of supervisors and students who actively create and maintain the difference that is constituted in borders as well as those who submit to, subvert or resist exclusionary and assimilatory efforts.

Newman (2006) recommended that “borders should be seen for their potential to constitute bridges and points of contact, as much as they have traditionally constituted barriers to movement and communication” (p. 143). As Pearson (2000) alluded to, much contemporary scholarship recognises that people, objects and ideas – in the case of this research, supervisors, students and knowledges – do not comply with an either/or dichotomy implied by traditional understandings of borders. Rather, applying Pearson’s thinking, supervisors, students and knowledges can be at once both/and: both insider and outsider, here and there, citizen and foreigner, academic and non-academic, student and supervisor, teacher and learner, researcher and researched, and the like.

In line with the membership requirement of the CoP approach (Lave & Wenger, 1991), discussed in chapter eight, borders traditionally impacted on *what* knowledge was produced, *who* could produce that knowledge, as well as *how* and *to whom* that knowledge was disseminated. Borders were everywhere within the context of postgraduate geography education within NZ from 1993 to 2008. These borders had significant impact on how supervision practices were performed.

Borders have dissected geography knowledge production practitioners in a number of ways at various scales: core from antipodean; academic from non-academic; geography from non-geography; human from physical; academic staff from student; and the like. Borders have distinguished between geography and other disciplines, particularly where knowledges have traditionally been seen to most closely relate to geography, such as sociology and geology, marking out what subject matter and/or theories belong to which discipline. Within geography there are borders between sub-disciplines such as economic geography and cultural geography. The academy is also characterised by hierarchical

vertical borders among undergraduate, masters, PhD and academic actors. There was traditionally a strong border between what happened within and beyond the academy.

Extending Kuhn's (1962) description of science disciplines in general, the borders within and surrounding postgraduate geography defined *what* and *how* knowledge was produced within the discipline and each of its sub-disciplines. Geography was also a situated knowledge: the discipline and sub-discipline depended on locale and changed through time. Some supervisors' and students' research interests and practices were perceived by other academics in the geography department as being incongruent or even in conflict with the generally accepted geography disciplinary or sub-disciplinary borders of that department. One masters student recalled that he *'liked that [his] supervisor was "cutting edge" ...Looking back it was interesting how the other academics tried to steer me away from doing a thesis with [my supervisor] but I didn't listen. I thought I knew best! After that because my research was kind of "out there" by department standards, it was basically just me and [my supervisor]'*.

8.3. Work at and across geography's internal divides

As evidence of what Harvey (2000) pointed out about academic geography in general, the collective topics of masters and PhD theses completed in NZ from 1993 to 2008 have spanned an extensive range of geographic knowledges. One way in which the breadth of these geographic knowledges was highlighted was through the wide scope of theses related to geographies unique to NZ and its close neighbours. Knowledges extended from bio-geographical investigations of kauri tree rings in the Far North of NZ, to geomorphic studies of ice sheets in Antarctica, to the richness of Māori geographies throughout Aotearoa⁷², and to geographies of the people of NZ's Pacific neighbours.

Postgraduate geography in NZ, reflective of academic geography generally, was characterised by many internal divides. The two most notable were the human-physical divide and divides between different sub-disciplines within geography.

⁷² Aotearoa is the most widely known and accepted Māori name for NZ. The most popular and authoritative meaning usually given to the name is 'long white cloud'.

Overall, the collection of masters and PhD theses produced in NZ from 1993 to 2008 can be described as an inter-disciplinary enterprise. Across the six universities there were approximately equal numbers of theses completed in human and physical geography.

The inherent human-physical geography divide has influenced the nature of theses produced, with most theses positioned within either human or physical geography, but seldom until very recently, across both. Several supervisors claimed that the human-physical divide evident in postgraduate geography research has been reinforced by the PBRF assessment criteria, whereby human and physical geography research is assessed by distinctly different panels.

As one supervisor commented:

*'There are differences in the way that sub-disciplines of geography approach theses. There's a tendency for people working primarily with the natural environment to have a different view from those working with people and enterprise and social and economic geography. **That tension is always going to be there in geography, but it's sometimes a very productive thing.** If students discuss the tensions they're likely to rethink their own positions. The differences needn't undermine or lessen the importance of the discipline within all knowledge'.
(emphasis added)*

Even prior to 2000 there were some examples of theses positioned at the human-physical geography divide, particularly those related to environmental management. The RMA of 1991 created significant research opportunities for postgraduate geography, the success of which required consideration of both human and physical geography knowledges. For instance, in 1996 a thesis was completed that *'examine[d] the social construction of nature'*.

The undertaking of thesis work at, or across geography's human-physical divide seemed closely related to the extent to which a supervisor's research interests and expertise spanned that divide. A critique of geography supervisors' website profiles exhibited that the research interests, publications and range of thesis topics supervised by some supervisors had broad perspectives concerning geographic knowledge production. Other supervisors' research demonstrated a fairly narrow focus. According to one supervisor,

postgraduate research that spanned the human-physical divide also often depended on a willingness by the supervisor to 'go outside the square and push his/her own existing knowledge boundaries'. A student acknowledged 'entering a new field of study was risky for us both [student and supervisor]'.

Morgan (2011), a geography professor and supervisor from the University of Otago, stated on his research page that "my core research interests are the understanding and management of human impacts on environmental systems, especially soils and vegetation" (para. 1). This is evidenced in the topics of many of the masters theses that he has supervised such as one titled 'The influence of soil physical characteristics on the response of walking tracks to trampling pressure' in 1995. At the time of submitting this thesis Professor Morgan was also co-supervising a PhD thesis in zoology titled: 'A socio-ecological systems approach to sustainable land management in New Zealand'.

Since about 2003 a number of theses have been concerned with "Nature-society relations under neoliberalism" (Le Heron, 2011, section 3). According to Le Heron, "New Zealand is regarded internationally as a major site of neoliberalising experimentation. This has led to complex lines of political engagement by government, business, community and iwi⁷³ interests around the appropriation and use of biophysical processes. The research...[including PhD theses] has several substantive foci: land based industries, fisheries, coastal and estuarine management and most recently the biological economy" (Le Heron, section 3). Le Heron acknowledged that the NZ neoliberal experiment has provided a unique, appropriate and relatively compact context in which such nature-society relations can be examined. Titles of masters and PhD theses that explored nature-society relations include: 'The political ecology of conflict mitigation in natural resource management'; 'In what sense a fisheries problem? Negotiating sustainable growth in New Zealand fisheries'; 'Dairy effluent, water quality and environmental governance'; 'Building institutions for sustainability: a New Zealand case study'; '100% Pure? Re-imagining nature-society relations in New Zealand'; 'A geography of marine farming rights in New Zealand: some

⁷³ Iwi is the Māori word for a set of people bound together by descent from a common ancestry. Literally: bone. Modern meaning: tribe (<http://www.natlib.govt.nz/about-this-site/glossary/iwi>)

rubblings of patterns on the face of the sea' and 'Community, quotas and co-management: a case study of fishery management in the Chatham Islands'.

There are numerous examples of these crossing geography's sub-disciplinary divides. These have tended to be among sub-disciplines within human geography. Examples include the integration of Māori and feminist geographies and the merging of political and economic geography knowledges. Physical geography sub-disciplinary topics were frequently studied in relation to the environmental management field. Knowledge from the Geographic Information Systems/Science was frequently employed as a tool to analyse and represent knowledge from other geography sub-disciplines.

Students and supervisors alluded to the capacity and capability building potentialities of geography's inherent human-physical divide. One student said *'being grounded in the geography discipline, itself internally interdisciplinary...enabled my thesis to make broad interdisciplinary contributions'*. Another student noted *'by undertaking my PhD in geography I was able to have one supervisor from the physical sciences and another from the social sciences'*. A supervisor *'strongly believe[d] in transformational education not transactional education and geography [was] a great place to be able to do that sort of stuff because people [could] go off at weird tangents because there [weren't] disciplinary walls saying you [couldn't] go there'*.

In a few instances students crossed the border from human to physical geography or vice versa between their bachelors and masters or masters and PhD. Such border crossing arguably served to build both the research capacity and capability of the student concerned. One student commented that *'taking on a masters in human geography with a mostly science background, I had to learn about the theory and possible methodologies pretty quickly as I went along'*. Another student had presumed that moving from human to physical geography for his postgraduate research would have been *'fairly straightforward'*. However *'the challenges encountered...both...with Masters and PhD were...around lack of confidence, self-doubt...Both theses or research areas were kind of outside my comfort zone...and...for Masters developing methods and analysing physical data that I hadn't done before was challenging and even though you've gone through the right processes you*

hope in terms of developing your method and you've had feedback and everything's worked out alright, you question whether that was the best way of doing it...and very much so with PhD'. In my own case I crossed the physical-human geography divide by completing a masters thesis concerned with fluvial geomorphology and its impact on human activity to a PhD focused on geographical pedagogy positioned within political and economic geography.

8.4. Geography and the broader university: 'Inter'-disciplinary border work and border crossing

Geography, similar to all academic disciplines, became an institutional presence by establishing borders of knowledge that authorised its learning, teaching, research and service activities within the setting of each university. As such, geography as an academic discipline has been subject to the discursive norms of the knowledges it represents, pressures operating within universities, together with broader social and political forces. Postgraduate students commented that:

'In the 1990s and [very] early 2000s there was very little postgraduate profile [centrally] in the university...This meant that there was very limited interaction of postgraduate students from different disciplines'.

Snyder (2005) described how the maintenance of strict disciplinary borders limits the capacity and capability potentialities of knowledge production:

Disciplinary boundaries are artificial constructs. In my opinion, they are useful in that they help like-minded seekers of knowledge to define areas to investigate and to form learning communities. They are less helpful...as they become overly concerned with established credentials and see themselves as ends in themselves. (p. 150)

By 2000 geography masters and PhD students were starting to have more association with university wide knowledge spaces: students actively crossed the geography disciplinary border within the university. In some universities this trend was at least partly due to the relocation of geography department library services into central university libraries and in all universities it reflected the increased provision of support to masters and PhD students by centralised service divisions within the university. Geography's inherent inter-

disciplinarity was recognised by both students and supervisors as enabling postgraduate students to take advantage of opportunities derived from engaging with the knowledges and practices of other disciplines.

One student recognised that *'through my education in both human and physical geography I have developed a greater awareness of, and open-mindedness to different points of view. I am able to see the bigger picture while also focusing on specific details'*. Another student acknowledged that *'geography's concern with space, place and time enables me to recognise that all knowledge is situated within these three dimensions'*.

The terms 'multi-disciplinary' or 'inter-disciplinary' have been increasingly used to describe areas of study such as geography that defy obsolete disciplinary boundaries (Alibrandi, 2005). Geography's inherent inter-disciplinarity means that it transcends the historic notions of the bounded discipline and the future of geographic studies is likely to continue to be inter- or multi- disciplinary. Recent research endeavours also indicated a movement towards trans-disciplinary approaches – evidence of geography research being situated at the frontier of existing knowledge production borders. One masters student combined concepts and methodologies from cultural geography and music to consider knowledge as a complex performance. Geography PhDs have also begun considering the possibilities of trans-disciplinary approaches. A PhD thesis completed in 2005 titled *'Confronting barriers to ecological information transfer in New Zealand's fisheries management system'* had the subtitle *'Towards developing a trajectory for trans-disciplinary inquiry'*.

Geography's inherent inter-disciplinarity has enabled several students to commence a PhD in geography after having completed their previous study in another discipline. In such situations students have been able to draw on the knowledges and practices acquired through previous education in other disciplines to enrich their research.

Geography's broad knowledges also provided students who had completed a masters degree in geography with adequate backgrounds to undertake PhDs in other disciplines. Interestingly, most students who continued on to a PhD after completing a masters degree

in geography chose to remain in geography to complete their PhD. One student commented: *'Geography is such a broad subject with such a diversity of possible approaches. I never even considered doing my PhD in another discipline. Thinking about it now I'm not convinced that my thesis topic would have worked in a context where I couldn't integrate the physical and social worlds'*.

As one supervisor explained *'PhDs are actually university wide degrees, however they are in disciplines. In theory they should be interdisciplinary, and some of them are supervised that way'*. Another supervisor was often involved in *'forming cross-disciplinary supervisory teams to ensure that student's individual needs [were] met'*. Several supervisors commented that the desire of supervisors and/ or students to engage in interdisciplinary PhD topics was complicated by administrative and political questions such as which would be the home department of such an interdisciplinary PhD? Only two of the 'geography' PhDs completed were officially recognised as interdisciplinary by their respective universities.

A supervisor observed *'the university has things that bring PhDs from different departments together occasionally...little competitions they have for PhDs and for masters students, [where] they present...[It] tends to be PhDs who do it more. Some of my good students that are really enthusiastic...get a lot out of those cross disciplinary and cross university programmes'*.

Some students believed that their *'real support lay outside the department...that was where the intellectual inspiration came from; and [the] contact with colleagues in geography was all about grounding that'*. From another perspective some students felt that geography was a sufficiently broad discipline that they had no need to cross the disciplinary border. A student recalled *'I didn't really engage in that wider stuff beyond the department...I know that there were PhD morning teas and that sort of stuff, but I didn't really take part in any of that because I felt I was getting what I needed in the department'*.

Some students praised the opportunity to develop broader networks and connections within the university knowledge space by crossing the geography discipline border. In one case a

student commented that his supervisor *'had [major] connections into the university [and the student] was able watch what [he] was doing; be in the room when he had discussions with people; ...[socialise] with the shakers and rollers around the university; so it was a chance to actually find out what was happening. [The student] began to see the inner workings of the university. He had access to some of the more interesting thinkers around the social sciences and the arts faculty; and by a process of meeting them and then becoming informally mentored by them, ended up in...two reading groups that determined the direction of the thesis; and determined the direction of (his) academic career'*. Another previous PhD student felt *'very fortunate in terms of the networks that (he) was able to become positioned within...and...got woven into some patronage relations...(which resulted in) full time employment'*.

In postgraduate research, inter-disciplinary work often created far more tensions for supervisors than for students. A number of supervisors, particularly within physical geography, were uneasy in situations where postgraduate research projects, particularly at the PhD level, did not fall close to their perceived area of expertise⁷⁴ and boundaries. This often necessitated enlisting a supervisor or advisor with appropriate expertise from another discipline, from another university, or from outside the academy. Such cross-disciplinary or cross-university supervision, while providing distinct advantages to all actors involved (students, supervisors and knowledge), led to challenges and disputes around funding and other research allocation for the research, university regulations, where the work got published, and from which university the PhD student would graduate. There was also some debate regarding against whose standards the work would be measured. The PBRF was widely criticised for discouraging interdisciplinary research endeavours as each of the assessment panels were perceived to focus on fairly narrow disciplinary areas. A related tension was the difficulties associated with getting interdisciplinary work published in high-ranking journals.

⁷⁴ Supervisors' limiting sense of their own expertise indicates their perception that they did not have or realise the capacity-capability to develop and redevelop their expertise. How capacity-capability building enables the development and redevelopment of expertise is the topic of the next chapter.

Thesis abstracts demonstrated that there were several examples of both masters and doctoral theses that explicitly crossed disciplinary borders. Having been educated within geography's interdisciplinary environment, many supervisors and students could see that making connections among two or more disciplines made sense for understanding and presenting the complexity of a thesis topic. These research processes or thesis write-ups drew heavily on theories, concepts, methods or technical information from one or more other disciplines. As one student who completed her thesis in 1993 acknowledged '*several parts of this study involved areas of research not covered within the geography department [at my university]*'.

When postgraduate geography students completed their masters or PhD theses they were, with the exception of the few who took up an academic position, employed in positions beyond geography. For this reason masters and PhD students needed an understanding of knowledges and practices in disciplines beyond geography.

One student recalled that: '*I actively engaged with postgraduate students from other disciplines across the university – engineers, sociologists, economists, planners, you name it. I believed that understanding different disciplinary perspectives would help me to better understand geography, would help me find a job, and would be important for a career in local government*'. Another student commented '*I had a really good reading group with other PhD students from other departments in the University. We engaged in much productive debate from our widely varying disciplinary perspectives*'.

For several supervisors good supervision practice involved starting by framing the research problem from the perspective of the student. The student's initial position was often outside the bounds of the supervisor's academic expertise in terms of the cultural, employment or discipline context from which the student came. This was particularly the case in situations where the student had undertaken his/ her previous studies in a different area of geography, had come from a discipline other than geography, had come from another university or had been out of the university system for several years. According to one supervisor:

'It is important to recognise that effective supervision practices do not equate to a one size fits all model. Students who arrive at my door seeking supervision have

diverse backgrounds, values, beliefs and so forth, different strengths, different things they want to get out of their postgraduate studies and varying career aspirations. Firstly I just listen to what they have to say to ascertain where they are at.'

As supervisors and students together explored an issue in more depth over time, the more precise language, methods and ways of understanding represented by the geography discipline were slowly integrated. Numerous supervisors and students recognised that it was important to *'be aware of the well-trodden pathways and the deeply-engrained perspectives that the geography discipline provides, but don't allow any perceived disciplinary constraints to limit students' explorations and contributions to knowledge'*.

In each university the interdisciplinary nature of masters and PhD geography theses has often reflected the location of geography in relation to other disciplines. For instance, Longhurst and Johnston (2005), two human geography supervisors at the University of Waikato, described how "(t)he interdisciplinary links between women's studies and geography at [the University of] Waikato have been important from the outset" (p. 97). At Victoria University of Wellington geography research was frequently closely aligned to the development studies, environmental studies, geology, geophysics and petroleum geoscience disciplines with which it was housed within the School of Geography, Environment and Earth Sciences⁷⁵.

Geography supervisors, in reflecting on their supervision and other teaching and research practices reiterated similar questions to those raised by Alibrandi (2005):

HOW do we prepare students for ever more interdisciplinary collaboration? What are the infrastructures that will support their inquiries? How will they construct communities of new inquiry, and what kinds of experiences must we provide NOW to facilitate those developments? (p. 144)

A number of masters and PhD theses were undertaken within inter-disciplinary research teams, involving both supervisors and students who were each investigating a different component of a larger research project. In such cases a successful application for research project funding depended on an interdisciplinary approach to the research topic.

⁷⁵ Geography was initially left out of the title of the School and then later reinstated.

Supervisors and students frequently agreed with Alibrandi (2005) who described how “studies are enriched by reaching across disciplinary boundaries” (p. 143). These interdisciplinary teams displayed evidence of “roundtables [to]...promote interdisciplinary thinking” (Kerski, 2005, p. 155). According to Kerski, such “(r)oundtables fit in very well with reflection on what one is learning, with collaborative learning, and with considering other viewpoints. In short, they mirror the interdisciplinary learning that takes place in everyday decision-making on the job” (p. 155).

One student reflected:

‘When I was completing my PhD, masters and PhD students engaged in discussions around the meeting table with academics from geography, sociology, anthropology and population health. As students we really felt like our voices were being heard and our contributions were valued. It was a privilege to have the opportunity to work with academics from outside geography.’

In very recent years the BRCSS network, to which geography supervisors and postgraduate students have been substantial contributors, has promoted cross- university and cross-disciplinary social science research endeavours to build research capacity and capability. For instance BRCSS provided seed funding for the national Marsden funded Biological Economies research project involving collaboration among human geography and rural sociology researchers from six NZ universities. The challenges of maintaining regular inter-university collaboration across physical spaces are overcome through the use of virtual tools “by the means of KAREN, the inter-university high speed broadband grid, and in f2f [face to face] meetings at conferences” (Biological Economies, 2011, para. 3). The biological economies project represents the integration of biological and social processes and in doing so aligns with the resilience paradigm. This paradigm argues against the undertaking of disciplinary and sub-disciplinary research that is too narrow in focus to account for the complexity of real world processes and systems (Campbell et al., 2009). Campbell et al. pointed out the comparative advantages of undertaking research into nature-society relations within the NZ context. This was specifically in relation to the question they posed in their title regarding moving ‘*From agricultural science to “biological economies”?*’ (p. 91). Campbell and his colleagues acknowledged that:

(r)esearch groups overseas are already discovering and employing novel approaches to the ideas...advance[d] in...[their] paper. But New Zealand maintains certain advantages and can assume leadership in creating knowledge appropriate to current global conditions. Principal among these advantages is our capacity to get representatives of diverse groups together in the same room – and to launch the sort of dialogue represented by recent discussions...[at that time] in...[the New Zealand Journal of Agricultural Research]. Even this preliminary engagement...shows where New Zealand can do so much more and better. (pp. 95-96)

As postgraduate geography education has taken place at and across the geography discipline border into other disciplines, practitioners within these other disciplines have realised the value of integrating geographical thinking into their work – what has been referred to as the spatial or geographical turn (Lingard & Gale, 2007). Alibrandi (2005) claimed that when other disciplines are applied across space they become geography. As one geography supervisor noted:

'Most social sciences now have adopted some geographic theory and ideas because they've seen through their own sort of often narrower perspective the importance of some of these ideas; and some of the biological and physical sciences have recognised how the geography of things has a deeper set of meanings than they originally thought.'

8.5. Postgraduate geography work across academic and non-academic sites

From 1993 to 2008 a high proportion of postgraduate geography masters and PhD theses completed involved applied research that tied closely to the environmental, social, economic and/ or political needs, values, interests or local concerns of a local community or nation. Research topics were often strongly driven by sources of funding, funding requirements and other organisational agenda.

As such, postgraduate research often crossed borders into cultural and political settings that were relevant to the researcher's and or researched or research participant's community. Recognition of the postgraduate researcher's positionality or multiple positionalities in relation to his/ her research was often acknowledged as significant to applied research that

traversed disciplinary borders, as well as academic borders to community and other non-academic contexts. One student's thesis acknowledgements stated:

'to integrate my own positionality (way of seeing) into this thesis and make it more readable, I have organised the text around an extended metaphor of the tikouka (cabbage tree). Accordingly readers are encouraged to approach this thesis as if you are entering various rooms in a gallery, as opposed to reading the chapters in a traditional linear fashion. With the use of this metaphor, I want to give the impression that, like a tree, this thesis is grounded and situated in the political and social relations of place and time'.

In addition to occupying the position of researcher it was common for postgraduate research students to study topics for which they had a vested social, economic, political and/or environmental interest: to occupy multiple positionalities.

Many masters and PhD students, in their thesis acknowledgements and/ or dialogues with me, exhibited a high degree of critical reflection in relation to their research practices that involved stakeholders outside of the academy. Students demonstrated awareness that while their voice was important in their thesis, a student's perspectives alone could, and should never fully represent that of an entire community or other stakeholder group. One Māori student acknowledged that *'(t)he views expressed in this thesis are not the views of all Māori. Practices, tikanga⁷⁶ and knowledges vary between different iwi⁷⁷, hapu⁷⁸ and rohe⁷⁹'*. Students acknowledged the importance of *'allowing participants' unique voices to sing through loud and clear on the pages of the thesis'*.

A number of students raised their concerns, insecurities, and difficulties regarding whether or not they had sufficiently and accurately expressed different community or other stakeholder perspectives in regard to both the research process undertaken and the write-up of the academic thesis and other publications. These students also recognised that equal to, if not more important than the knowledge produced by completing a masters or PhD thesis, is the education and training gained for future research endeavours.

⁷⁶ Tikanga are the Māori customs and traditions that have been handed down through the passages of time.

⁷⁷ Iwi are the largest everyday social units in Māori culture, equating to a tribe or confederation of tribes.

⁷⁸ Hapu are Māori descent groups, clans or sections of a tribe.

⁷⁹ Rohe are the territories or boundaries of Māori tribal groups.

One PhD student admitted:

'I found the process of interviewing people and then using the material and feeling a sense of...duty to them, to represent their views in an appropriate way, while still maintaining a critical take on the issues quite a challenge...I question should I have interviewed more people?, was my breadth of topic too broad?, a whole series of critiques...while the final product was fine and there were no major dramas with it, I'm not happy with it and I never will be...even though I still stand by what I say, I'm still not one hundred percent confident with it, ...but that's fine, I learnt from it and...there are things that I do differently in some of the stuff that I do now'.

Other PhD students commented: *'while I might be critical of the final product, again the bigger picture, or the broader consequences have been really positive'* and *'it's the process of having to put yourself out there...engage with different people, you know from locals, to CEOs, to people in Ministries and talk to them and think through things critically and actually write it up...but also the ability to think in a broader context and start to connect issues...I see that now in terms of some of the research opportunities I'm looking into at the moment...I can see transferability of some of the ideas and from the basis of thinking from my PhD thesis, even though my new research interests are on paper really quite different, there's still themes that I'm interested in that have arisen from that...it's as much about reading the subtleties of people, of things and I think that that's become more developed over time...but again it depends, I think that's very much down to the individual and depends what drives you...where getting a large number of research outputs is your key motivator...you're going to have quite a different focus, whereas for me it's always been as much about meeting people and listening to their stories and kind of building a bigger picture of how the world works and how people work and how different they all are and that sort of thing. So it can never be about the final product because that never represents it and within an academic context, that's always going to be critiqued anyway'.*

Students recognised the importance of community-based knowledge for enriching their learning and research. One student's acknowledgements included the comment: *'I would like to thank all of the people who took time to...teach me'*. Another student acknowledged that *'(o)pportunities to embed myself within the local community and experience their daily life have been critical to my understanding and therefore the depth of this research'*. One

thesis abstract argued for the need to '*disrupt hegemonic knowledge*' based on the researcher's dialogue with a sample comprising teenage girls. The researcher said: '*I challenge dominant, adultist geographical research practices and argue for young people's 'ways of doing things' to be incorporated into research with young people*'. However, many students acknowledged that '*putting local knowledge into a formal thesis document presented a significant challenge*'.

The University of Waikato from its outset has worked closely with, and served Māori people, particularly those of the local Tainui tribe. It is not surprising then that several masters and PhD students are Māori and that their thesis research designs have employed Māori perspectives and concepts such as Tikanga Māori⁸⁰, Kaupapa Māori⁸¹, Mana Whenua⁸² and Kaitiakitanga⁸³.

One thesis abstract read:

'The research for this study was carried out under a conceptual framework that validated Kaupapa Māori as a vehicle for research theory and Tikanga Māori, research action. This methodology was used because it was considered to be an appropriate acknowledgement of the cultural background of both the interviewees and myself'.

Another abstract explained how: '*the researcher's critique of position, identity, knowledge and limitations led to the use of kaupapa Māori and participatory appraisal methods*'.

According to a third abstract:

'In exploring and utilising both Indigenous theory (mana wahine) and Indigenous methodology (Kaupapa Māori research) I hope to provide another lens through which to view and understand Indigenous people's experiences and identities, and to create theoretical space within geography for theories that counter hegemonic colonial masculinist ideology'.

⁸⁰ Tikanga Māori are the Māori customs and traditions that have been handed down through the passages of time.

⁸¹ Kaupapa Māori is the conceptualisation of Māori knowledge that has been developed through oral tradition.

⁸² Mana whenua is the power of authority (mana) that a Māori person or tribe holds over their land and its natural resources (whenua).

⁸³ Kaitiakitanga is guardianship and stewardship by Māori people over the natural resources gifted to them (taonga) by their ancestors.

Supervisors, wherever relevant, encouraged students to cross the academic border to work with practitioners who were engaged in the production of geographic knowledges at sites beyond the academy. Several supervisors adopted an internship type model in which masters students completed their theses. In many cases this led to full-time employment opportunities after the thesis was completed. One supervisor thought *'positively about the opportunities to connect students with Alumni around possible internships and access to data and so forth. Internships make the masters year more meaningful for students'*. One student commented: *'I ended up working at the...[regional council]...for a couple of years because I had established a working relationship by completing my masters with them'*. Several PhD students were co-supervised by a CRI scientist.

However, university policies regarding supervision and the like, as well as competition among various academic and non-academic sites of geography and other knowledges limited the prospects of students to undertake research that crossed the academic non-academic divide. "In these fast-moving times, as the knowledge-economy evolves, ... the practitioner is coming closer to the academic, but the academic researcher seems to be moving, or is being driven, further away" (Durning, 2004, p. 435).

One supervisor, in agreement with Durning (2004), remarked:

'in a NZ context...I think we work in a pretty pathetic system here [in the university] where, rather than collaborating and working together, this competitive environment that we're working within is the opposite of so many things I regard as good practice. [We have poor] relationships with CRIs [Crown Research Institutes] and local and regional councils. Collaboration is a key to success, and if we want to encourage students to work here in NZ then access to data is a fundamental component of that. One of the examples right now is access to remote sensing data which [all these] agencies have, and...[want payment for access] rather than actually working collaboratively on them. A situation, an environment where research is seen as threatening to those agencies, has got to be one of the most pathetic excuses for not moving forward...it's just we are so risk averse and yet the whole process of research is about taking risks, because that's how you learn, so...there're some institutional impediments in a NZ context or anathema to the research process in my terms'.

However, these poor and limited relationships across the border between academic and non-academic sites of geography knowledges were addressed by some supervisors in

inclusive ways. In some cases, supervisors had been, or were still engaged as practitioners or consultants or had colleagues outside the academy, which encouraged a crossing of the academic and non-academic border. These supervisors spoke of *'wide networks from students who have moved into different types of work'*; and *'providing contacts and ideas...[and] people to follow up on'*; and *'realis[ing] possibilities...of linking with other organisations to modify...the project to suit. I consider doing that if it is in the interest of the student'*.

One student personally contacted staff at a Regional Council *'and they had a series of topics...which aligned with overlaps of things that [he'd] done, so in discussion with [his] supervisor [he] came up with a proposal and received funding from them'*. Another student who had entered the knowledge space at graduate level closely aligned his PhD *'to previous and simultaneous local government work practices'*.

Since 2000 it became quite common for PhDs, and some masters, to be funded by external agencies that *'provided opportunities as a research assistant...a research topic as well as some paid work'*. Supervisors spoke of:

'engaging students with end users...embed[ding] students in end user communities or agencies, so that they're actually doing a thesis which is not only action research; it's also professionally embedded. I draw on my contacts and my networks with various agencies around the place, sometimes internationally, sometimes with projects that I'm doing internationally, so that students play an active role in a real time project and so the results of their work are not just imaginary in practice; it's real time, real world stuff that's going to be useful to an end user, even before, and even if they don't even publish the thesis beyond handing it in'.

Externally funded and applied postgraduate research resulted in outcomes and outputs that were deemed valuable both outside and inside the academy.

When students recalled their experiences of 'funded' research, there was a range of comments. One PhD student: *'worked fulltime in a research centre not associated with [the university] so had no contact with graduate [colleagues] or the department. [Her] primary supervisor [who was a co-investigator in the same project] was from the geography department ...and [they] met as project colleagues in addition to supervisory sessions*

[offsite]...Completing a thesis at the same time as working full time was difficult even in situations where a high proportion of work responsibilities and the thesis topic coincided...The research project within which this thesis was nested involved a range of researchers with quantitative and qualitative skills and provided a rewarding environment for discussion and networking...It opened opportunities for engaging in sector wide activities...[Her] supervisors were [her] colleagues in a different role, and [they] enjoyed working together on this and other subsequent projects'. Other students found that 'full time work commitments made completion of [their] doctorate difficult. Technically [they were] supposed to have time to work on [their] thesis at work, but that never happened because there was always too much pressure to get paid work done'.

Part-time PhD candidates since 2000 have had to operate within the tensions and discrepancies inherent in attempts to successfully complete a PhD within the academy while continuing to pursue an academic or non-academic career.

Many supervisors maintained strong ties with their former research students. One supervisor kept a large frame on his office wall with a mosaic of photographs of each of the research students who he had supervised. Several maintained business cards and current contact details of all their former research students. Others continued to collaborate with their former students on research projects and/or invited them back to present guest lectures and/or seminars in the department/school. These contacts provided '*potential employment opportunities and research/business contacts...[for] students*', which '*at masters level might be more [funding for study, then later] employment prospects, and at doctoral level for future research support or consultancy work*'.

In some instances students used the process of completing a PhD that traversed academic and non-academic borders to determine whether they preferred an academic or non-academic career. One student commented: '*I was thinking completing a PhD might be a possible career path to academia...but the process showed me that I didn't want that path in the end, but I needed to go through that process to come to that conclusion, so that was very valuable*'.

As Campbell and his colleagues (2009) described:

(u)nder the Building Research Capability in the Social Sciences (BRCSS) banner (which transcends the universities and disciplines)...(the biological economies project researchers) have been able to weave industry-policy-academic links that have not been hampered by institutional hurdles. This work will inevitably lead to new priorities and investment allocations. A successful and viable response from the research community rests on twin imperatives: innovative research programmes (... reintegrating blue skies and applied research) and, of equal importance, the linking of these to the production of different knowledge in different ways and in different sites. Our curricula, our pedagogy in universities, our Crown Research Institute resources and our consultancies must be much more creatively mobilised and flexibly recombined as we seek to shape New Zealand's future. (p. 96)

8.6. Working at and across borders for capacity-capability building

Border work and border crossing was a distinctive and strategic practice within postgraduate geography education in NZ between 1993 and 2008. Work at and across borders enabled students to operate at the frontier of existing knowledge production enterprises. I propose that engaging in border work and border crossing in relation to not only *what* knowledge was produced but also *where, how, by whom* and *for whom* such knowledge was produced (the research practices performed) provided a substantial strategic advantage in terms of the research capacity and capability building potentialities of a postgraduate geography education. Specifically I have outlined three capacity and capability building borders at or across which geography masters and PhD theses were completed.

The first borders were within the geography discipline, including the human-physical geography divide and borders among geography's diverse range of sub-disciplines. Working at or across these borders enabled supervisors and students to draw on the diversity of resources available within the geography discipline (to build capacity) and to develop an understanding of a range of quantitative and qualitative research approaches (to promote capability building). Effective integration of diverse knowledges and practices to address complex research questions required supervisors and students to seek synthesising themes and methodological approaches.

The second borders were those inherent within each university between geography and other disciplines. Many supervisors observed that research funding, both within and beyond the academy, increasingly favoured interdisciplinary projects based on the recognition that complex contemporary issues were not sufficiently addressed by disciplinary-specific investigations. Both students and supervisors acknowledged that it had been important for students to gain experience in inter-disciplinary research, including collaborating with researchers from other disciplines, by either producing knowledge or engaging in research practices that crossed borders between geography and other disciplines. Such endeavours enabled students to build research capacity and capability relevant to the future interdisciplinary research positions that they subsequently took up both within and beyond the academy.

The third borders were located between academic and non-academic sites of knowledge. Geography masters and PhD theses often focused on applied research, involving significant contributions either from, or to non-academic sites of knowledge. Such applied research promoted students' research capacity and capability building for subsequently acquiring a research position outside of the universities, as most people who completed a masters or PhD did not seek or gain subsequent employment in a university.

A number of challenges and tensions limited postgraduate geography's strategic advantages in working at or across borders to maximise research capacity and capability building potentialities. These included university policies and procedures, supervisors' unwillingness to step outside their comfort zones, competition among disciplines within universities for funding, competition among universities and other non-academic sites of knowledge production for funding, and PBRF criteria that were perceived as inadequate to assess interdisciplinary research endeavours. Supervisors, university managers, government officials and other stakeholders might take action to minimise such tensions so that the capacity-capability building potentialities of geographers working at and across knowledge borders can be maximised.

In chapter nine I draw on the three main propositions that I have made in chapters six, seven and eight respectively, regarding NZ postgraduate geography education's distinctive

and strategic capacity and capability building practices, to summarise and conclude the thesis. These propositions are the strategic advantages gained from: first, co-learning among all actors and stakeholders involved in postgraduate geography education; second, supervision practices performed in complex knowledge spaces; and third, working at and across borders. I discuss possible future pathways for postgraduate geography education and academic geography in general. I suggest possible areas for further research.

Chapter 9. Representational and performative geographies: nurturing a generative discipline

What is new, we would argue, is the actual and potential relation of the academy to what is happening on the ground. Not only are academics becoming more involved in so-called scholar activism but they are increasingly conscious of the role of their work in creating or 'performing' the worlds we inhabit. This vision of the performativity of knowledge, its implication in what it purports to describe, its productive power of 'making', has placed new responsibility on the shoulders of scholars – to recognize their constitutive role in the worlds that exist, and their power to bring new worlds into being. Not single-handedly, of course, but alongside other world-makers, both inside and outside the academy. (Gibson-Graham, 2008, p. 614)

9.1. Problematizing geography as a single, representational academic knowledge

I chose the above quote to open this concluding chapter as I perceived it to appropriately reflect many postgraduate and broader geography research practices in NZ at the time when this research was coming to a close. Gibson-Graham's various recent works (Gibson-Graham 2008; Gibson-Graham, & Roelvink, 2009, 2010) extended the representational/non-representational conversation in highly politicised fashions. Gibson-Graham (2008) acknowledged the significance of academics' practices on performing existing and possible worlds. They proposed three ways to reconfigure their roles as academics: performative rather than representational epistemology; ethical thinking⁸⁴; and experimental/creative rather than critical approaches. Gibson-Graham deemed ethical practice as "(t)he co-implicated processes of changing ourselves/ changing our thinking/ changing the world" (p. 618). In other words, they argued as academics, from a post-structural stance, that "to change our understanding *is*⁸⁵ to change the world" (p. 615). So, how are these approaches

⁸⁴ To Gibson-Graham (2008) ethics "involves not only continually choosing to feel, think and act in particular ways but also the embodied practices that bring principles into action" (p. 620).

⁸⁵ Italicised emphasis in original text.

and co-implicated processes reflected in postgraduate geography pedagogical practices in NZ?

Within my concluding remarks I initially deemed it appropriate to explicitly link the contributions of this doctorate to key segregated stakeholder groups. Then after further consideration I decided that I should avoid the temptation to categorise stakeholders and therefore reintegrate the types of boundaries that I have negated in my various chapter arguments around concepts such as globalising geographies, co-learning and border crossing. Rather I conclude according to the main arguments that I have made and highlight the realised and potential contributions of these arguments to geography and broader knowledge production enterprises in the globalising knowledge economy.

The overall conclusion of this thesis is that postgraduate geography in NZ since 1993 has been characterised by some distinctive knowledges (representations) and pedagogical practices (performativities). There are several sub-arguments that I have constructed to develop the overall thesis argument. These are (1) the contemporary focus of universities on research and research training; (2) increasing academic concern with postgraduate pedagogy; (3) postgraduate pedagogical relations as a distinctive point of entry and framing for investigating postgraduate experiences; (4) considerable development of localising knowledges and practices in NZ geography to contribute to globalising geographies and the globalising knowledge economy; (5) NZ's significant postgraduate geography knowledge production enterprise; (6) NZ geographers explicit work on postgraduate pedagogical relations relative to evidence from the literature that there have been developments in postgraduate pedagogical practices in many disciplines; and (7) increasing geographer discomfort with representational approaches.

I argue for recognition of representational and performative approaches to nurture geography as a generative discipline. From this position, the thesis provides a foundation stone for a discussion of capacity-capability building around research more generally both within and beyond geography.

9.1.1. University focus on research and research training

Universities have increasingly privileged their research mandate over that of their other teaching and learning, and service activities. This has been intensified through funding pressures and incentives. The early university culture of critical teaching meant research skills, supervision of research and supervising the development of research skills were taken for granted by products of graduating with a doctorate. Recently the paucity of research on the pedagogy of research supervision has been gradually rectified.

Geography academics and postgraduate students have been arguably positioned in a privileged yet unstable space. Academic geography in NZ was caught up in the nation's neoliberal higher education reforms, and in the global shift in focus, circa the early 1980s, to creating and sustaining a globalising knowledge economy. Knowledge production through research became high priority on the political agenda in NZ, as for many nations, as the country sought to retain a competitive advantage. The central government turned to universities, as significant researchers and research trainers, to support this cause. There was renewed focus on research training to ensure future generations of researchers.

Not only has postgraduate geography education in NZ been influenced by and reacted to the prevailing higher education context, exploration of higher education and broader neoliberal reforms have become important topics of research for NZ geographers.

9.1.2. Concern with postgraduate pedagogy

Pedagogy of research supervision has become an object of academic concern. A number of principles have been articulated, and these have been premised on a number of assumptions:

- For the most part this has involved breaking with traditional separation of supervisor, student and knowledge production activity. However, the focus at best has been on the supervisor-student relation, without much attention to the vital connection between this relation and how knowledge is produced.

- Despite the elevation of the supervisor-student relation, it has rarely been examined in disciplinary terms.
- Geography is a particularly valuable disciplinary environment because of a co-existence of threads of physical and human geography in both undergraduate and postgraduate research courses and between-disciplinary engagement.
- Geography also has a disposition to go beyond itself. This could also be similar in other disciplines, but geographers have been especially attentive to investigating inter-face relations.

9.1.3. Postgraduate pedagogical relations

The methodological focus on supervisor-student-knowledge relations gives me a very distinctive point of entry and framing of research experiences.

I have argued for the need to move beyond the notion of supervisors and students as discrete actors that was followed by understandings of dyadic supervisor-student relations to more complex concepts of pedagogical practices to be able to more accurately describe postgraduate geography's distinctive generative practices. I have extended triadic notions of postgraduate pedagogy (comprising supervisors, students and knowledges) to incorporate a contextual sense for framing postgraduate geography pedagogical practices. I argue that the spaces in and across which knowledge has been used and produced and practices performed, together with key 'moments' and timings, will always be highly significant to the potential for research capacity-capability building.

9.1.4. Localising NZ geographies contributing to globalising geographies

The aim of this thesis was to explore pedagogical practices associated with postgraduate geography education in NZ from 1993 to 2008. A broader aspiration was to enhance the visibility of NZ geography within NZ schools, universities and non-academic communities, as well as across global geography communities.

Although a non-professional discipline, geography is studied in NZ by about ten percent of secondary school students and one percent of undergraduate students. However, in both

secondary schools and universities geography has lost some of its visibility through being consumed within the Social Science curricula in the former and through being restructured and amalgamated with other disciplines into schools bearing alternative names in the latter. It is evident both in the literature and through anecdotal evidence that students at both secondary school and university level are uncertain about what sort of job or career opportunities they might have if they gain a university qualification in geography.

The historical development of academic geography within and across various nations throughout the world has been conceptualised in the geography literature and by many geographers in conferences and other discussion forums in accordance with a core-periphery framework. In this model North America, the UK and Continental Europe have been viewed as the dominant academic geography cores where the geography discipline first transpired, while the relatively more recent emergence of geography in NZ and other nations has been considered peripheral or antipodean. I therefore set out my framing of the historical development of NZ geography within international geography activities using this core-periphery analogy.

I then argued why it is important to move from traditional notions of core-peripheral geographies to concepts of localising and globalising geographies as a way to increase the visibility of any distinctive and generative practices of different geographies to nurture the discipline's future. Since the early 21st Century, in the context of globalising knowledge economies, the geography of different nations, in particular NZ geography for this thesis, has been more appropriately and productively conceptualised within a 'globalising geography' framework. I have demonstrated the unique contributions and strong international connectedness of NZ geography to the broader geography discipline, despite NZ's peripheral positioning and small size. NZ, as is the case for other nations, has maintained its situated and often unique geographies and associated knowledges and practices while at the same time making significant contributions to globalising geographies. Throughout this thesis I have purposefully avoided using the terms 'globalised' and 'globalisation' as they imply a completed process. Instead I refer to

‘globalising’ higher education and a ‘globalising’ knowledge economy to denote the ongoing nature of these processes.

The investigation of NZ geography over a lengthy period suggests considerable emergence in practices. The question is, was the development of practices conscious, formalised and explored or has it been unacknowledged and hardly grasped?

9.1.5. Significance of the NZ postgraduate geography knowledge production enterprise

This thesis has put the postgraduate geography knowledge production enterprise in NZ on the map. ‘Mapping’ the realised and potential capacity of geography knowledge production enterprises in NZ was a necessary first step before exploring the research capacity-capability building potentialities of completing postgraduate geography education.

This thesis adopted a blend of representational and performative approaches, through a post-structural political economy lens. From my broad insider and outsider geography positionalities, I aimed from the outset to identify distinctive practices associated with postgraduate geography pedagogy. From this emerged some broader strategic propositions concerning geography’s existing and future competitive advantage. The methodology employed drew on non-representational theory through a post-structural political economy lens in its commitment to the performance and performativity of practices. I was concerned with assessing both how and what postgraduate geography pedagogical practices were performed, as well as the potentialities of such performativities. In adopting a performative approach it was important to illuminate researcher positionality and constitutive practices in geography knowledge production. In keeping with this emphasis on performativity I attempted to conceptualise and theorise away from my empirics.

This doctoral research is the first time that NZ (perhaps even worldwide) masters and doctoral research thesis abstracts and acknowledgements have been analysed for their content. I also interviewed supervisors and postgraduate students as key actors in postgraduate geography pedagogical practices, as well as considering the knowledges produced, spaces in which, and times when the interactions among supervisors, students

and knowledges took place. These empirical interventions resourced my inquiry into how geography performed its supervisor-student-knowledge relation.

9.1.6. Distinctive geography practices relative to broader developments in postgraduate pedagogy

I revisited the rapidly expanding postgraduate pedagogy literature of the 2000s to address the questions: is there evidence that NZ geographers have been consciously and unconsciously guided by working in a supervisor-student-knowledge relation framework? And have there been relational understandings of the shift?

A 2008 to 2011 reading of the genealogy of good research supervision practices in codifying existing and exploring new supervisory practices in universities suggests that any discipline is likely to have experienced internal development, and institutional pressures for further development, over time. NZ geography, as a large and vibrant research community, with a strong postgraduate presence was an ideal discipline to explore the emergence of postgraduate pedagogy.

While some distinctive and strategic practices were explicitly voiced by supervisors or postgraduate students, most were proposed by me based on discussion, investigation and interpretation. Thus the three prominent strategic propositions that I made concerning postgraduate geography's distinctive pedagogical practices were: (1) co-learning as a preliminary to and companion of co-production of knowledge; (2) communication for moving beyond communities of practice to generative knowledge spaces; and (3) firm disciplinary foundations from which to work at knowledge frontiers as well as at and across borders.

Geography's postgraduate pedagogical practices were grouped into those evident in the 1990s and those apparent since 2000. These practices were examined against the top 25 good postgraduate pedagogical practices presented in the higher education literature, indicating that fairly well developed practices of the 1990s became generative in the 2000s in intriguing and important ways. It was the norm for practices to reflect strong traditions

of research-informed and research-led teaching and learning practices in geography (Healey et al., 2000), which promoted co-learning and co-production.

I have argued that NZ postgraduate geography pedagogical practices of the 1990s were performed within already well developed communities of practice (CoP), which became more complex and generative knowledge spaces after 2000. The idea of knowledge spaces, rather than using the singular knowledge space, reflects my empirical observation that the work and working of geography was largely contained in geography units in NZ. There are exceptions, (e.g. the *Changing Places* books (Britton, Le Heron, Pawson, 1992; Le Heron & Pawson, 1996) and the introductory human geography textbook (Le Heron, Murphy, Forer & Goldstone, 1999)), but the supervision nexus was prosecuted in, and eventually out of these units. Communication, both formal and informal, among supervisors and postgraduate students, was key to the success of these communities and spaces. Despite the potentialities for postgraduate relevant geography knowledge spaces to exist at multiple scales: inter geography department, national and international; the strongest knowledge spaces appeared to exist and persist at the geography department/ school level. Until 2008 geography supervisors and postgraduate students largely failed to realise the advantages and other potentialities of *explicitly* developing and acting in knowledge spaces at a range of scales beyond their immediate department or school for research capacity-capability building. Since 2008 postgraduate student-led initiatives across NZ's universities began focusing on the development of a national postgraduate geography knowledge space linked to the activities of the NZGS.

Geography supervisors and postgraduate students required a strong disciplinary foundation from which to perform work at and across persisting academic borders. Furthermore, the crossing of borders in postgraduate geography education was often not a straightforward journey: commonly fraught with challenges and risks, both imagined and real. Supervisors frequently acknowledged that the work of postgraduate students, particularly PhD candidates, was at knowledge frontiers. The international contributions of such frontier work became increasingly evident after 2000.

Postgraduate research almost always crossed the academic/non-academic divide in terms of both knowledges used and produced and practices performed. Ninety-nine percent of theses completed could be labelled ‘applied’: that is they studied geographical phenomena beyond the academy. Several theses were also completed as an internship at an external organisation; or with support and/ or funding from a council, CRI or other organisation. Some PhDs were also co-supervised by CRI scientists.

Many supervisors and postgraduate students commented on the way thesis work crossed traditional disciplinary boundaries, both between physical and human geography and between geography and other disciplines. In the 1990s such disciplinary border crossing was typically described as cross-disciplinary or multi-disciplinary with the odd mention of interdisciplinary endeavours. After 2000 such disciplinary crossing research endeavours became framed as interdisciplinary or transdisciplinary.

The PBRF, as the major performance-based mechanism of government funding for universities, with its separate assessment panels for human and physical geography was seen by 72 percent of the supervisors interviewed as a major deterrent to engaging in interdisciplinary or transdisciplinary endeavours.

But in an inherently outward-looking discipline such as geography, claims to endeavours that span into the traditional territories of other disciplines pose at least two questions for consideration: How do geographers recognise, and then describe, that a practice or knowledge is disciplinary, interdisciplinary or transdisciplinary? How do geographers know the extent to which disciplinary, interdisciplinary and transdisciplinary practices are productive?

In the NZ context, where only six universities house geography departments and two others teach a limited number of undergraduate geography courses, it was possible to explore the discipline across an entire nation. Through rendering geography departments and their postgraduate research activities more visible, I was able to ascertain the congruence and diversity of knowledges and practices involved both within and between departments. I believe that NZ geography’s knowledges and practices can be adapted to different contexts

and explicitly communicated to people beyond the academic geography community to gain better understanding of the discipline and therefore ensure the future of the discipline.

Students and staff engaging in academic practices within non-geography disciplines often, and perhaps understandably, question how a field as seemingly disparate as geography can be a single discipline. Ironically it is through this disparity spanning the physical and social sciences that postgraduate geography in NZ is rather uniquely positioned at the frontiers of knowledge production in a modern world.

NZ geography shares characteristics in common with other national formations of geography but its dimensions are highly situated. This PhD research was never intended, nor can it claim to be, a national comparison of the performances of NZ postgraduate geography with other geography knowledges at other sites in NZ or elsewhere in the world. Neither have I attempted to argue that NZ geography has special advantages or disadvantages to other disciplines. Rather, I hope that students, academics and other researchers working with other geographical knowledges or other disciplines/ subject knowledges may gain insight from reflecting on and adapting NZ postgraduate geography knowledges and practices.

Qualification inflation and a focus on research capacity-capability building associated with the globalising knowledge economy, resulted in an overall increase in postgraduate research degree completions, particularly at the doctoral level. With the number of doctorates completed well exceeding the number of early career academic positions that arise each year it has become critical for universities to consider why doctorates are undertaken and what transferable skills need to be developed for non-academic careers in an uncertain and changing world. In fact, many doctoral students within geography return mid-career to complete a PhD while continuing to engage in full-time employment.

9.1.7. (Dis)comfort with representational approaches to geography

This investigation of NZ geography research spanned a period when geography as a discipline was engaging with a shift from representational to non-representation/ performative ideas. This has major implications for how the supervisor-student-knowledge

relation in NZ geography might be understood. Rather than just seeking to establish what is, I am seeking instead, following Gibson-Graham's lead, to establish what institutionalised performative, ethical and/or experimental capacities and capabilities are evident. This raises the question: how widely understood and discussed are such matters?

Many geographers over the last two decades had increasingly unstable relations with the notion of discipline and with attempts to define the geography discipline in representational terms. Since its inception as an academic discipline, geography has been inherently outward reaching – an attribute that has been viewed as both a strength and a threat to its survival as a coherent discipline. Over time there has been increasing explicit communication and production of knowledge across or within the traditional divides – evident in NZ with work on Biological Economies (2011) and the like. There has also been a tendency for other disciplines to use geographical knowledge to support their academic endeavours: a form of spatialised spatial turn and institutionalised spatial turn. Geography, with a tradition of significant fieldwork components in teaching and research, arguably provides a very open model of research-led teaching and co-learning.

At the outset, this thesis was inspired by the provocative words of renowned geographer Professor David Harvey in his keynote address to the 29th International Geographic Congress meeting in Seoul, South Korea in 2000. At that time Harvey's claims were still somewhat heretical⁸⁶ for many but they were highly influential on the work of a number of international geographers, including several New Zealanders, present.

Of significant foundational importance to framing this thesis was Harvey's (2000) claim that ongoing attempts to establish a representational definition of a discipline as diverse as geography were fruitless to sustaining its future. Alternatively he proposed that geographers promote what it means to think like a geographer, unified by his overview at the time of four structural pillars that each encompasses methodologies⁸⁷. He was in effect

⁸⁶ Many geographers did and do not accept that you cannot define the essence of geography.

⁸⁷ These four structural pillars are provided in footnote 1 on page 1 of this thesis.

pointing to how geographers would both know through their methodologies, and more crucially, be known because of the relevance of the methodologies.

My research has extended Harvey's (2000) proposition, incorporating a non-representational practice focus (Thrift, 1996) to explore what it might mean to 'think and do geographies' and 'think and do like a geographer' by reviewing the disciplinary trajectory in NZ in terms of its distinctive practices. Harvey's recognition that there are multiple geographic knowledges produced and/or used at multiple sites both within and beyond the academy also provided an important basis for exploring postgraduate geography research practices in NZ. From a non-representational standpoint, I in effect was proposing that differently imaginative and imagined practices might be associated with different knowledges and sites.

Thrift (1996, 1997, 1999) introduced the concept of non-representational theories to move beyond considerations of simply the 'what' of geographic knowledges (representations) to focus on 'how' geography knowledge is produced (non-representational performativity). Throughout the first decade of the 21st century other geography academics and postgraduates further extended this non-representational thinking. The terms 'on-representational' (Dewsbury et al., 2002) and 'more than representational' (Lorimer, 2005) have since been proposed to better describe and accent how such approaches are interested in and build on representations.

As I conclude this thesis I perceive that there is value and a place for being sensitive to representational and performative, structural and ethical, and creative and critical approaches to geography to maximise the discipline's research capacity-capability potentialities.

Some geographers argued that both representational and performative geographies have a role in the future of the discipline: that performative practices cannot and do not need to exist without representational understandings. This argument draws on Law and Urry (2004), Busch (2007) and Callon (2007), who have all claimed that how the world is enacted (the performative) depends on what knowledge is produced (the representational).

According to Callon (2007), “no longer do we have to choose between interpreting the world and transforming it. Our work, together with the actors, is to multiply possible worlds through collective experimentations and performances” (p. 352). I propose that this thinking was reflected in NZ postgraduate and broader geography PSPE knowledge production practices that were being developed and applied as methodological approaches at The University of Auckland (Larner & Le Heron, 2002a; Larner, Le Heron, & Lewis, 2007; Le Heron, 2007, 2009; Lewis, Larner, & Le Heron, 2008).

9.2. A capacity-capability framing for postgraduate education

The NZ government has more recently placed an increased emphasis on research capacity and capability building with the agenda of maintaining a competitive advantage for NZ. Central to these developments has been the idea that building research capacity and capability, through generative practice, does and should constitute ‘innovation’. Increased political interest in research capacity and capability building in the latter years of my research period encouraged me to assess postgraduate geography’s distinctive practices in terms of their capacity-capability building potentialities.

In a thesis focused on generative potentialities through a performative approach it was important for me to consider what work my thesis might do and how far this work might extend. Thus, I asked the question: How might the practices be made even more generative? Rereading of relevant higher education and social science (geography) literature provided the steps for how I might place the supervisor–student–knowledge relation into a capacity–capability framework. Table 9-1 provides an overall conceptual summary of distinctive research capacity-capability building practices and individual-group relations in postgraduate geography education in NZ from 1993 to 2011. The table follows the approach of Le Heron, E. et al. (2011). Concepts are expressed in terms of both framing issues and guiding questions. The components of this framework draw on the breadth and depth of named and nameable practices both in the literature and in geography.

Table 9-1: Framework for individual and group capacity-capability potentialities of postgraduate geography education

<p>How might supervisors or students add capacities to perform research? Framings Identifying and narrating his/her postgraduate education practices and relations, including supervision practices within the tripartite supervision relation (supervisor(s), student(s) and knowledge(s)) Understanding and making maximum advantage of his/her personal identity formation and multiple identities and positionalities as a researcher Managing tensions among intellectual (disciplinary), institutional (academic and non-academic) and personal agendas and impacts on resources (time) and identities Guiding questions – how might each supervisor or student... Develop generative research practices, including supervision practices? Initiate engagement with others to transcend inherent geography divides, disciplinary borders? Develop creative synergies from his/her multiple research strands? Plot a trajectory through competing priorities for different research?</p>	<p>How might each supervisor’s or student’s capacities be mobilised to build collective research capabilities? Framings Developing transparent practices amongst supervisors, students and other researchers Identifying strategic sites for collaborative knowledge production within geography, within the academy, and beyond the academy in communities and other organisations Identifying and explaining the choices made about what approaches and categories are used in producing knowledge – focusing on <i>how</i> knowledge is produced Guiding questions – how might each supervisor or student... Engage with each other, with other geography supervisors or students, with other non-geography academics and other non-academic researchers to develop a collective research agenda? Behave to help resolve tensions over his/her commitments to different groups? Become a network(ed) subject and take on group identities within a geography department, within a university, in an international academic community or outside of the academy?</p>
<p>How might each supervisor or student act in a group/network to add to its capacity to perform? Framing issues Understanding the powers that a group is capable of exercising over and beyond that of an individual supervision relation Understanding the group as an ethical actor in the ownership and responsible application of knowledge produced Understanding the group as a political actor in moving from engaging in disciplinary, to inter-disciplinary and/ or trans-disciplinary projects to answer bigger questions Guiding questions – how might supervisors or students ... Commit to and behave in a group (collaborate with other students, academics, non-academic researchers or community members)? Employ the group identities of the projects of which he/she was a part to gain credibility, give meaning to knowledge, and secure future employment? Help initiate groups/ projects to gain wider perspectives on thesis topic?</p>	<p>How might each student or supervisor as a group subject build potential to become? Framing issues Developing supervision and other research practices for co-learning and co-production Feeding/moving forward reflexively from group experiences and practices Exploring co-learning and co-production as political and ethical acts Guiding questions – how might each supervisor or student... Lead groups – identify new research agendas and lines of political expansion, develop protocols and procedures for research, re-map the diversity and genesis of intellectual trajectories, reposition groups in new schema? Narrate group research histories reflexively?</p>

Source: Adapted from Le Heron, E. et al. (2011).

A number of questions emerge regarding effective implication of the above framework such as: when would you have a discussion around these things in a supervision relation? How does application of this framework compare for preset research agenda versus individual research topics? And are any simplifications or other modifications necessary for the framework to do work?

Depending on the background of students, supervisors and students would be advised to work their way through the framework from individual to group and capacity to capability considerations over the entire research process: have an early discussion on supervisors' and students' individual capacity and capability potentialities, then consider how these can be applied to add capacity to a group, then mobilise group capabilities, and finally build each student's and supervisor's potentials to become.

Application of this capacity–capability building framework is likely to be more successful when undertaking of fairly flexible individual research topics compared to the often rigid agenda of preset, funded topics.

It may be pertinent in certain situations that the framework remains blank except for the headings and sub-headings, and to have supervisors and/ or students individually and collectively self generate the contents. This framing implies significant generative potentialities that might emerge from running combined workshops for supervisors and students, in place of those that have often been run separately for supervisors and students.

This capacity-capability framework could be built into the formal research activities of geography departments/ schools, such that geography academics and postgraduate students are forced to explicitly think about and act on the generative potentialities of their practices. Substantive processes, changed thinking and changes to how work is done are needed to make the framework do work. Careful communication or at least translation is necessary for different contexts.

In terms of professional contributions to my role as a cross-disciplinary university educator, I have incorporated this framework into supervisor training workshops and selected elements of the framework into workshops for postgraduate students with notable

effects. New supervisors particularly appreciated the provision of such a framework as a generative way to guide their practice. ‘Social science’ supervisors and students, perhaps not surprisingly, found the table fairly straightforward to immediately relate to. ‘Science’ supervisors and students initially found the performative language challenging, as it was a novel way for them to think about supervision practices. After some explanation, discussion and debate the relevance to ‘science’ team-based supervision and research endeavours became quickly apparent.

Through consideration of a sampling of the contents of supervisor training workshops and workshops offered for postgraduate students at six NZ universities I can see where this framework, or elements of it, could add value, although for students, a simplified version of the framework, at least initially, seems most appropriate.

9.3. Emerging questions and avenues for future research

I have performed new knowledge and NZ geography’s postgraduate research enterprise into existence and arrived at a real sense of this knowledge being practice-based. Given the ongoing nature of postgraduate research practices with a focus on capacity–capability building in the academy, this experiment can continue.

Table 9-2 summarises several tentatively answered concerns as well as emerging questions and important avenues for further research. These have been portrayed according to which of the two main contributions of this thesis they relate to: understanding the performed extent of the postgraduate geography knowledge production enterprise; and ascertaining postgraduate geography’s distinctive practices and their research capacity-capability building potentialities. They have also been divided into those relevant to NZ postgraduate geography education, broader postgraduate geography education, geography as a discipline, work at and across traditional academic borders, and broader political agenda. The questions in the first column related to NZ postgraduate geography education have been answered from evidence for the period from 1993 to 2011 in this thesis, and involve ongoing practices of assemblage.

Further research is needed to address some of the essential questions posed in the conclusion to Le Heron et al. (2010): “What does the future hold for graduating PhDs...?...What however of the PhD process itself? What is now expected of the student? How has this been affected by the changing environment? Has the way that PhDs are managed through and are connected to staff PBRF performance changed expectations of length, rigour, topics and time taken to complete? What of expectations of what a PhD can do for a student? What are graduating PhDs doing? But just as this has been achieved the funding situation and job market are tightening; domestic fees for international doctoral students have been abolished, the Crown Research Institutes have one by one had funding crises and this has impacted on doctoral funding and on research funding, and post-doctoral support is slender. More seriously, while the achievements of the past decade could be celebrated, it must also be said that understandings of the PhD as a vehicle for knowledge production, disciplinary reproduction, academic identity formation, and for development of new initiatives and enhancing careers, have been poorly documented or simply overlooked. In particular, we would ask, how might the geography PhD experience have altered as a result of not being in ‘geography departments’ and what are the possibilities and effects of co-international degrees? Finally, how might, indeed should, a core PhD focus be defined in this environment? What processes might ready geography PhD candidates and graduates to perform better and more distinctively in turbulent environments? What difference is made by a strong complement of international students? What is the value of the PhD, as seen by others in different contexts? These questions remain to be grappled with” (pp. 5-6). Similar questions can be raised concerning masters. These questions can be explored according to NZ and other geographies.

Other possible extensions of this research are envisioned. First, it would be useful to ascertain the relational trajectories of the supervisors, as performed in part by their levels of national and global connectedness: the multiple knowledge spaces to which they belong, to consider the likely impact on postgraduate pedagogical practices. Second, an investigation of the learning and/or career trajectories of students to postgraduate geography education would be useful to consider their preparedness for engaging in generative research practices. Third, an exploration of career and/ or education trajectories following the

completion of geography masters and PhD theses that related to learning, teaching and research within academic geography, within or across other disciplines, and beyond the academy is needed to determine the sustainability of generative research practices.

Ongoing considerations of questions concerning postgraduate geography in NZ (column 1) will extend the work done by this doctorate in some generative ways. Addressing questions around postgraduate geography (column 2) serves to redress persisting gaps in the international literature. Asking questions about geography as a discipline (column 3) might increase the visibility of geography's work and nurture the discipline's future. Questions about border work (column 4) enable geographers to imagine how they might better articulate their contributions to interdisciplinary and transdisciplinary research endeavours. Finally, raising questions concerned with broader political agenda (column 5) ensures that the work of geographers is recognised as worthy of funding to ensure the discipline's future in universities.

9.4. 'Thinking and doing geographies' and 'thinking and doing like a geographer' into the future

Following my empirical research timeframe from 1993 to 2008 there was a distinct redirection of knowledge politics in NZ. The redirection of knowledge politics gained traction in several ways. In November 2010, Professor Nigel Thrift⁸⁸, Vice Chancellor of Warwick University and social theorist, argued that the value of research in NZ need only be limited by our imaginations⁸⁹, and that the idea of a public domain – to which knowledge contributes – could and should be a guiding principle for state-funded research. There was a sense among academics that bottom-up connectivity rather than co-erced top-down imposition of interdisciplinarity would have greater research capacity-capability building potentialities. In December 2010 a national-level interdisciplinary climate change workshop sought to expand the 'Degrees of Possibility' around climate change politics by

⁸⁸ This was Thrift's address to the *Runninghot Conference - Wonder and widgets: Realising the value of research for NZ*. Runninghot conference details are available at <http://www.runninghot.org.nz>.

⁸⁹ Thrift's keynote is available at <http://www.youtube.com/watch?v=S8KqDfapiI>.

Table 9-2: Emerging questions as possibilities for further research

PG geography in NZ (this research)	PG geography education	Geography	Working across traditional academic borders	Broader political agenda
<p>PG geography as an enterprise Why has NZ's postgraduate geography knowledge production enterprise remained significant through changing contexts? To what ends are masters and PhD geography completions increasing?</p>	<p>How have other postgraduate geography knowledge production enterprises remained significant through changing contexts? Are masters and PhD geography completions increasing?</p>	<p>What might this substantial and persistent postgraduate geography knowledge production enterprise say about geography more broadly?</p>	<p>How much knowledge production results from practices across disciplines or academy/ non-academic borders? How many actors from outside geography or the academy are involved in this knowledge production?</p>	<p>How do geographers ensure that their work visibly aligns with broader political agenda to attract research funding and students who advance in their geography studies to postgraduate level?</p>
<p>PG geography as a set of distinctive research practices What is distinctive about postgraduate geography research practices in NZ? Distinctive practices for capacity-building What are the capacity-capability building potentialities of these distinctive practices?</p>	<p>What is distinctive about postgraduate geography practices more generally?</p>	<p>How might geography be more proactive by drawing on its distinctive postgraduate research practices? Do these research building capacity and capability potentialities go beyond postgraduate education? How might a focus on distinctive postgraduate research practices support geography's future?</p>	<p>As an inherently outward reaching discipline, how do geographers determine whether the practices they engage in are disciplinary, interdisciplinary or transdisciplinary? How do geographers assess the extent to which capacity-capability building potentialities are a consequence of practices involving actors beyond the discipline or academy? How can the tensions and constraints to border crossing, including ownership of knowledge, be overcome?</p>	<p>How might geography be more proactive by drawing on its postgraduate and other research practices to meet broader political agenda?</p>

‘Igniting social knowledge’⁹⁰ around its conceptualisation and implementation. Further, the formation of the new Ministry of Science and Innovation by the NZ Government on February 1st 2011⁹¹, involving the amalgamation of the Foundation for Research, Science and Technology and the Ministry of Research, Science and Technology, signalled a shift in national research funding priorities for research with commercial applications.

So, finally I raise a last question: How might geography academics and postgraduate students empower themselves to do disciplinary, interdisciplinary and transdisciplinary work differently?

Alongside the change in knowledge politics has been a revitalisation of NZ geography, mostly since 2008 (Binns, 2011). Several academic- and postgraduate geography postgraduate student-driven enterprises have emerged that begin to address this question. In 2009 all human geography masters students at The University of Auckland engaged in monthly meetings where students advised and learned from each other. Postgraduate students involved, recognised the co-learning opportunities that emerged through them each taking on proactive leadership responsibilities in terms of the supervision of themselves, their research processes and their theses.

Since 2010, a postgraduate student-led initiative at the School of Environment, University of Auckland, aimed to develop interdisciplinary research capacity and capability around questions relating to freshwater knowledge and governance. Workshops with key academic and community stakeholder participation enabled conversations about, understandings of and relationships with ‘rivers’ to develop across disciplinary boundaries (Tadaki, Blue, Gregory, McFarlane, Reid, & van Limburg-Meijer, forthcoming), thus “developing capacities and capabilities of knowing” (Le Heron, under reviewa, p. 5).

Since 2008 the “NZGS embarked on three simultaneous initiatives, a Strategic Planning process, the creation of a living website...and reinstating and Annual Heads of Departments

⁹⁰ For further details visit: <http://www.nzclimatechangecentre.org/event/dop>.

⁹¹ For further information about the Ministry of Science and Innovation visit: <http://www.msi.govt.nz/about-us>.

meeting...[that] have framed the NZGS, perhaps for the first time, as a political project, concerned with setting visionary agenda, formulating demanding questions, facilitating politically astute connections and so forth... For the first time, NZGS is involved in the preparation of national expert statements, on topics such as Ecosystem Services, Land Use Competition, and Community Collaboration Post Earthquake” (Le Heron, under review, pp. 4-5). NZGS has begun to support a range of regional conferences to focus on specific events between the biennial national conferences. These have been: a geography education conference at the University of Waikato in January 2010; a development geography symposium hosted by Victoria University of Wellington in April 2011; and an extended seminar series titled ‘Dialogues on water’ organised by Massey University in late 2011.

At the national level, geography postgraduate students from seven of NZ’s eight universities have been extremely proactive in enhancing their contributions to the NZGS. They have become active members of the executive committee and facilitated national and Australasian workshops and seminars. A network has been formed that aims to increase (post)graduate student interaction and participation in the NZGS. According to Le Heron (under review), “(u)nquestionably the high frequency of Access Grid meetings is helping re-build [NZ geography] identity, particularly amongst postgraduates” (p. 4).

Since 2010, the University of Otago has hosted a “Transitions, Connections and Mobilities” website as a collaborative workspace in which geographers engage with academics from other disciplines. In November 2010, the University of Otago hosted the first mobilities research symposium, in which a number of geographers participated. In July 2011, geographers from Massey University hosted a second mobilities research symposium. These symposiums were generative in their focus “Towards a Movement-Driven Social Science in Aotearoa/ New Zealand”⁹².

⁹² For more information about this collaborative workspace visit: https://mobilities.wiki.otago.ac.nz/Main_Page.

At the University of Canterbury, a scholarship for a PhD to be co-supervised across geography and education was announced in September 2011 to fund cross-disciplinary doctoral research related to recovery from the recent Christchurch earthquakes.

NZ geographers Professor Richard Le Heron and Senior Lecturer Nick Lewis have become recognised research partners in the World Universities Network's Global Challenge in Higher Education Research, whose "work will generate new knowledge and understandings of the diverse aspirations, drivers and consequences of global research assemblages" (Nick Lewis, cited in UniNews, 2011, p. 4).

From my multiple insider and outsider positionalities, having been somewhat re-framed after completing the primary empirical work of this PhD, I perceive that answers at least partly lie in determining how geographers can individually and collectively engage in research capacity-capability building knowledges (representational) and practices (performatively) for and from an ongoing commitment to geography as a situated yet globalising discipline. Doing geography will help to make the work of the discipline relevant through connecting, crossing scales, new imaginaries and the like. I acknowledge that such a proposition represents only one of many directions that could be taken. What it means to 'think and do geographies' and 'think and do like a geographer' is situated and continually evolving. My hope is that the insights contained herein will encourage further conversation and debate by future generations of geographers on what I deem to be the distinctive and generative approaches of geography and geographers: (1) producing critical and performative frontier knowledges; and (2) engaging in generative ethical and political practices that make such knowledge production relevant.

Appendix A: Positionings of, and key teaching areas and research themes in, geography at each NZ university in 2011

University and website address	Key teaching areas	Key research themes, streams or groups
University of Auckland Faculty of Science School of Environment http://www.env.auckland.ac.nz/uoa/	Human geography Physical geography Environmental science Environmental management Development studies	Earth systems and resources Contested environments Globalising processes Living with environmental variability and change Pacific futures Urban dynamics
University of Otago Division of Humanities Department of Geography www.geography.otago.ac.nz	Human geography Physical geography Planning Environmental management	Antarctica and the southern ocean Community-based development in Africa and South-East Asia Gender relations in New Zealand and the Pacific Spatial information processing Glaciers and climate change Biogeography and conservation Planning
University of Canterbury College of Science Department of Geography www.geography.canterbury.ac.nz	Human geography Physical geography GeoSpatial science Resource and environmental management	Health geography Antarctica Glaciers and climate change Air pollution Geospatial science and coasts
Victoria University of Wellington Faculty of Science School of Geography, Environment and Earth Science www.victoria.ac.nz/sgees/	Human geography Physical geography Development studies Environmental studies	Tectonics and lithospheric deformation Volcanology, geochemistry, petrology Quaternary environments Environmental modelling and prediction Development and globalisation Environmental studies and sustainability Economic geography and social inequality Social theory and spatial praxis
University of Waikato Faculty of Arts and Social Science Department of Geography, Tourism and Environmental Planning www.waikato.ac.nz/wfass/subjects/geography/	Human geography Tourism studies Environmental planning Tourism development	Geographies of development Gender, place and culture Geographic information systems Indigenous geographies Migration and ethnic relations Environmental studies Environmental Planning Tourism Studies
AND Faculty of Science and Engineering Department of Earth and Ocean Sciences	Physical geography Earth science	Climate and environmental change: past, present and future Coastal marine processes and management

Appendix A: Positionings of, and key teaching areas and research themes in, geography at each university in 2011

University and website address	Key teaching areas	Key research themes, streams or groups
www.earth.waikato.ac.nz		Sedimentary basins and resources Sustainable management of land and water resources Antarctic research Energy research
<p>Massey University⁹³ College of Humanities and Social Sciences School of People, Environment and Planning www.massey.ac.nz/massey/learning/departments/school-people-environment-planning/subject-areas/en/geography-home.cfm</p>	<p>Critical geographies of the built environment Critical geographies of consumption Gender issues and feminist geographies Political economy Geopolitics Coastal geomorphological environments Fluvial geomorphological environments Alpine geomorphological environments Human impact on selected natural systems</p>	<p>Critical geographies of leisure Political economy of contemporary and historical agricultural change The politics of ageing Geopolitics and mobility Geographies of science Geographies of the NZ state Channel dynamics and sediment transfers in gravel-bed rivers Reconstructing alluvial histories Holocene coastal geomorphology, evolution and development Manawatu coastal landforms and processes Glacier and climate change Slope-channel coupling</p>
<p>Lincoln University</p>		
<p>Does not offer any identifiable geography programme http://www.lincoln.ac.nz/</p>		
<p>Auckland University of Technology (AUT) Does not offer any identifiable geography programme http://www.aut.ac.nz/</p>		

⁹³ Massey University specialises in extramural courses to support distance students

Appendix B: Significant moments, markers or drivers in my research journey

Time, event and place	Significant moment, marker or driver	Influence on or contribution to my research
July 2004 IGU conference Glasgow ,Scotland	Presented a paper on the creation and employment of geography and geographers in NZ. Attended and participated in several sessions	Geographers' keen focus on pedagogy Significant amount of existing research into undergraduate geography teaching and learning Gaps in research into postgraduate geography education.
July 2004 INLT workshop Glasgow, Scotland	Worked with a team of geography academics on a paper about problem-based learning	Deeper understanding of international geography pedagogy
October 2004 Seminar in University of Canterbury's Department of Geography Christchurch, NZ	Presented a seminar to academics and postgraduate students	Feedback on my preliminary research design from geography academics and postgraduate students in another NZ geography department
December 2004 School seminar Auckland, NZ	Presented a seminar to academics, masters students and fellow doctoral candidates	Preliminary literature framework and research design
July 2006 IGC regional conference Brisbane, Australia	Attended and participated in several sessions	Diversity of geography as a discipline Persisting divide between physical and human geography
July 2006 INLT workshop Brisbane, Australia	Worked with a team of geography academics on one paper about community engagement in geography and a second paper on ethical issues associated with geography fieldwork	Community engagement and ethical issues in relation to postgraduate geography education, and specifically in NZ
September 2006 RGS-IBG conference London, UK	Attended and participated in several sessions	Nature of geography beyond the NZ context at that time Persisting divisions within geography such as core-periphery and human-physical
November 2006 Communication Skills in University Education conference Auckland, NZ	Presented a paper with supervisor on co-learning in postgraduate human geography at The University of Auckland	Alternative ways of framing co-learning from higher education perspectives
April 2008 Quality in Postgraduate Research conference Adelaide, Australia	Presented a paper on my PhD findings Attended several sessions	Contemporary international higher education context for my research.
July 2008 NZ Geographical Society conference Wellington, NZ	Attended and facilitated postgraduate workshop	Emerging departmental and national postgraduate geography education practices

Appendix B: Significant moments, markers or drivers in my research journey

Time, event and place	Significant moment, marker or driver	Influence on or contribution to my research
November 2008 Presentation to the Economic Geography forum Auckland, NZ	Presentation to Auckland economic geographers	Distinctive practices and strategic propositions
March 2009 Lecture for postgraduate class: 'Research Practice in Earth, Environmental and Geographical Sciences ' Auckland, NZ	Presented findings regarding the magnitude of the postgraduate geography knowledge production enterprise in NZ to a postgraduate class in the School to illuminate their national positioning	Shift in focus to trends since 2008 and the future of postgraduate geography in NZ
2009 Co-publication of thesis findings For GeoJournal	Co-authorship of paper on geography PhDs in NZ	Summarised and contextualised my main thesis findings for an international geography audience
January 2010 Positioning Geography conference Hamilton, NZ	Presented research findings to NZ geography community	Distinctive and generative postgraduate pedagogical practices
July 2010 NZ Geographical Society conference Christchurch, NZ	Presented paper on overall thesis	Positioned my thesis in a NZ context
September 2010 RGS-IBG conference London, UK	Presented paper on overall thesis	Positioned my thesis in an international context
November 2010 Doctoral Research Education Group: Researching the doctorate presentation Auckland, NZ	Presented a paper on geography PhDs in NZ	Positioned my findings within a broader NZ doctoral education context

Appendix C: Overview of methodologies and their value to this thesis

Research objective	Research object	Methodology or research method	Value to research process	Value to thesis topic
To increase the visibility of geography's value as an academic discipline	Relevant literature about geography as a discipline	Reviewed and critiqued the literature	Established where a valuable original contribution could be made to both NZ and international geography	Focused on developing unified methodological frameworks for geography through an investigation of postgraduate practices
To determine the extent of the postgraduate knowledge production enterprise in NZ	University library catalogues, geography department databases and/ or physical collections of completed theses	Undertook advanced search of library catalogues	Established the total population of authors' names of masters and PhD theses completed in geography and the names of the supervisors involved for interview purposes	Established the total number of masters and PhD theses completed in geography and the total number of supervisors involved.
To determine the nature/ relevance of the spaces in which postgraduate knowledge is produced	The six geography departments and the universities in which these are housed	Visited each university and geography department to observe spaces in which postgraduate geography research practices are performed	Networked with potential participants	Showed the diversity of knowledge spaces
To determine the political and university contexts in which postgraduate geography research practices are performed	Relevant policies, strategic plans, procedures and guidelines	Analysed documents	Provided important contextual information	Explained changes in practices through time
To determine the subfields of geography to which each thesis contributed	Thesis abstracts	Analysed documents	Allowed me to interview students from a diversity of geography sub-fields	Established the contributions that each thesis has made
To determine the methodologies employed by each thesis				Indicated work across the human-physical geography divide or beyond the geography discipline
To determine the significant actors involved in and spaces of postgraduate geography knowledge production	Thesis acknowledgments	Analysed documents	Provided the names of supervisors for me to contact about possible interviews	Enabled me to establish a database of supervision loads Gave a sense of the degree to which students felt part of a community

Appendix C: Overview of methodologies and their value to this thesis

Research objective	Research object	Methodology or research method	Value to research process	Value to thesis topic
To explore pedagogical practices from the perspective of supervisors	Supervisors	Completed semi-structured interviews and engaged in modest dialogues	Provided data about practices	Demonstrated both commonality and diversity in practices within and across universities Showed varying degrees of contextual impact on practices
To explore pedagogical practices from the perspective of former students	Students	Completed semi-structured interviews and engaged in modest dialogues	Provided data about practices	Demonstrated both commonality and diversity in practices within and across universities Showed varying degrees of contextual impact on practices
To determine the top 25 good postgraduate pedagogical practices	Higher education literature	Extracted 'good pedagogical' practices	Provided a framework for analysing interview data	Provided a benchmark to determine distinctive postgraduate geography practices
To determine distinctive postgraduate geography practices	Interview transcripts	Compared geography's practices to 25 'good' pedagogical practices	Showed how geography's practices compared to broader postgraduate pedagogical practices	Distinguished geography's distinctive postgraduate practices
To determine strategic propositions from distinctive postgraduate geography pedagogical practices and their capacity-capability building potentialities	Higher education and social science literature Postgraduate and other research workshops and other activities	Extracted and applied relevant concepts to explain strategic propositions Used activities as exemplars of capacity-capability building	Provided a means of collecting postgraduate geography's broad range of practices into a selection of strategic propositions that build research capacity-capability	Helped to make NZ geography's contributions to capacity and capability and citizenship building agenda more visible

Appendix D: Email to potential participants

Hi [potential participant]

I am presently undertaking a PhD in geography at The University of Auckland, regarding the landscape of postgraduate geography research experiences in New Zealand. The purpose of this research is to explore the nature and perceived effectiveness of, and influences on, supervisory practices in postgraduate geography research in New Zealand since 1993.

You may be interested and even surprised to know that some 1200 masters and doctoral theses have been completed in geography across six New Zealand universities since 1993, under the guidance of some 200 supervisors. Such substantial numbers imply the emergence of clear and significant institutional and departmental processes surrounding postgraduate geography knowledge production in New Zealand.

Through extensive searching of university library and department records, I have identified you as having completed and/or supervised one or more masters and/or doctoral research theses in geography at one or more New Zealand universities since 1993. You are therefore invited and strongly encouraged to participate in this research.

I am attempting to achieve a high response rate for this research. Therefore, should you know the current contact details of any individuals who you believe completed and/or supervised one or more masters and/or doctoral research theses in geography at one or more New Zealand universities since 1993, please inform me.

Please find attached a) a participant information sheet; b) a consent form; and c) a questionnaire.

Should you wish to participate in this research, please: 1.read and retain the participant information sheet, which will provide you with information about this research; 2.complete the consent form and send it back to me via email or post. (Please email me your postal address if you would like me to send you a paper copy of the consent form for you to sign; and a stamped, self-addressed return envelope for you to send your signed consent form back to me in); 3.let me know if you would like me to send you a paper copy of both the participant information sheet and questionnaire; and 4.complete the questionnaire and return it to me by either email or post.

Thank you for your time and kind regards, Julie Trafford

Appendix E: Interview questions for supervisors

1. Please outline the main practices that you implement or have implemented in relation to your postgraduate research supervision in geography.
2. What prompted you to implement such practices?
3. How did you develop these practices?
4. What, in your experience, do you regard as being the three most effective practices (of those outlined in 1. above)?
5. What, in your experience, do you regard as being the three least effective practices (of those outlined in 1. above)?
6. What research student, department and university practices have occurred that have impacted on postgraduate supervision in geography at your university?
7. What external practices, beyond the university, might have influenced postgraduate supervision practices in geography?
8. How have these research student, department, university and external practices impacted on your postgraduate supervision practices in geography?
9. Do you have any further comments that might be useful to the researcher?
10. If you are willing to be contacted by the researcher to engage in a modest dialogue regarding clarification or further discussion of your responses, please provide your name and contact email address below.

Appendix F: Interview questions for students

1. Please outline the main practices that your supervisor(s) implemented in relation to your postgraduate research experience in geography.
2. What, in your experience, do you regard as being the three most effective practices (of those outlined in 1. above)?
3. What, in your experience, do you regard as being the three least effective practices (of those outlined in 1. above)?
4. What were your reasons for completing postgraduate research in geography in New Zealand?
5. What external institutional or organisational practices, beyond the university, impacted on your postgraduate research experiences in geography?
6. What research student, department and university practices impacted on your postgraduate research experiences in geography?
7. Please comment on your experiences, or the outcomes, of completing postgraduate research in geography in the following areas:
 - a. sources of academic or professional support that you received
 - b. academic or professional development that you received
 - c. sources of funding or other income that you received
 - d. challenges encountered
 - e. contributions that your research work made to knowledge production both within and beyond geography, and both within and beyond the University – including your submitted thesis, seminar and conference presentations, reports or publications, etc...
 - f. your own learning and development including knowledge acquisition, and professional, personal and transferable skills development
 - g. networking, shared learning, research and employment opportunities that emerged
8. How, if at all, might your *experiences*, or the *outcomes*, of completing postgraduate research in geography have been enhanced?
9. Do you have any further comments that might be useful to the researcher?
10. If you willing to be contacted by the researcher to engage in a modest dialogue regarding clarification or further discussion of your responses, please provide your name and contact email address below.

Appendix G: Participant information sheet for supervisors

SCHOOL OF GEOGRAPHY, GEOLOGY & ENVIRONMENTAL SCIENCE
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Facsimile 64 9 373 7434

Tamaki Campus
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261 Morrin Road
Glen Innes, Auckland
Telephone 64 9 373 7599 ext. 86815
Facsimile 64 9 373 7042



The University of Auckland
Private Bag 92019
Auckland, New Zealand

www.auckland.ac.nz

My name is Julie Trafford. I am a PhD candidate in geography within the School of Geography, Geology and Environmental Science, at The University of Auckland.

I wish to invite persons who have completed and/or supervised geography masters and/or doctoral research at a New Zealand university since 1993 to participate in this research. Through extensive searching of university library and department records, individuals have been identified who completed a masters and/or doctorate and/or supervised masters and/or doctoral research in geography at one or more New Zealand universities since 1993.

The rationale of this research project is to explore practices in postgraduate geography research in New Zealand. This thesis partly reflects my professionally driven interest, as a cross-disciplinary learning advisor; in the nature, extent, interaction and effect of student, supervisor, department, university and external practices in relation to postgraduate geography research in New Zealand since 1993. I am asking participants to document and codify practices that they have typically implemented and experienced, as I perceive many of the practices associated with postgraduate geography research that I have witnessed to be highly effective and exemplary in terms of knowledge production, student learning and research training.

Participation in this study will involve completion of a questionnaire, which will take up to one hour. If participants provide their name and contact email address at the conclusion of the questionnaire I may also contact them for further verbal or email clarification or discussion of their responses, which will take no more than one additional hour.

As my records show that you have completed and/or supervised geography masters and/or doctoral research at a New Zealand university since 1993, you are invited to participate in this research and I appreciate any assistance you can offer. If you consent to me undertaking this research, please sign the consent form and post it to me. This consent form will be stored in a locked cabinet on The University of Auckland premises, separate from the completed questionnaires, for six years before it is destroyed by shredding.

Participation in this research is completely voluntary. Neither students' grades nor academic relationships with the department or members of staff; or employment status of academic staff; will be affected by either refusal or agreement to participate in this research. You have the right to withdraw from the project at any time without explanation. You also have the right to withdraw your information/ data from the project without explanation up to 31 December 2009.

All data collected will be confidential to me as the principal investigator, and all data will be written up in such a way that participants are not identified or identifiable. Paper copies of all data collected will be stored in a locked cabinet on The University of Auckland premises until the conclusion of the research project, at which time it will be destroyed by shredding. Based on the findings of this questionnaire, I will write papers for publication; give conference and seminar presentations; write a report for dissemination to participants, academic departments and other interested parties; and complete a doctoral research thesis.

Please note that if response rates are low, a second email and participant information sheet may be sent out to all potential participants seeking those who have not yet responded. Please ignore this second email if you have already responded.

Recognising that you might initially feel challenged by my requests in the questionnaire to document or codify practices that you implemented or experienced some years ago and with limited opportunity for reflection, examples of possible

Appendix G: Participant information sheet for supervisors

practices are provided below. These are offered simply to stimulate thinking, and are not intended to limit or overly-influence your response. In response to question one, supervisor practices might include:

- Developing cross-disciplinary research teams or projects.
- Having a series of meetings at the outset to plan a realistic thesis process, including setting goals and clarifying expectations.
- Supervisor(s) working regularly with student teams.
- Supervisor and student spending time together in the field or laboratory.
- Undertaking a whiteboard session once all draft chapters of the thesis have been completed to clarify the argument as expressed through the text.
- Supervisor and student learning together and from each other through sharing and valuing knowledge and experiences.
- Supervisor(s) modelling the academic research and/or writing process to the student.

In response to question six of the questionnaire, possible practices might include:

Research student practices	<ul style="list-style-type: none"> • Students forming support groups with their peers • Students sharing resources
Department practices	<ol style="list-style-type: none"> 1. Providing shared work spaces for research students. <ul style="list-style-type: none"> • Providing teaching opportunities for research students. • Providing conference funding for research students. • Providing financial incentives for students to publish. • Requiring research students to give seminars.
University practices	<ul style="list-style-type: none"> • Providing workshops to develop supervisory, research, or thesis writing skills. • Providing scholarships and other financial assistance to undertake postgraduate research. • Providing financial incentives for timely completion.

In response to question seven of the questionnaire, possible practices might include:

- An external organisation providing a research topic, funding, resources or supervisory advice in support of postgraduate research.
- Involvement in collaborative research projects with students or staff from other universities or organisations.
- A specific change in government policy that impacted on your postgraduate research practices and experiences.

Thank you very much for your time and help in making this study possible. If you have any questions or want further information please contact me as the principal investigator, my primary supervisor, or the Director of the School of Geography, Geology and Environmental Science; at The University of Auckland:

Principal Investigator: Julie Trafford
 Telephone: 09-373 7599 extn. 82935, Email: j.trafford@auckland.ac.nz
 Postal address: Student Learning Centre, The University of Auckland, Private Bag 92019, Auckland 1142.

Primary Supervisor: Professor Richard Le Heron
 Telephone: 09-373 7599 extn. 88453, Email: r.leheron@auckland.ac.nz
 Postal address: School of Geography, Geology and Environmental Science, The University of Auckland, Private Bag 92019, Auckland 1142.

Director of School: Professor Glenn McGregor
 Telephone: 09-373 7599 extn. 85284, Email: g.mcgregor@auckland.ac.nz
 Postal address: School of Geography, Geology and Environmental Science, The University of Auckland, Private Bag 92019, Auckland 1142.

For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Office of the Vice Chancellor, Private Bag 92019, Auckland 1142. Telephone 373-7599 extn. 87830.

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE on 9 May 2007 for a period of 3 years from 1 June 2007, Reference Number 2007/144.

Appendix H: Participant information sheet for students

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The rationale of this research project is to explore practices in postgraduate geography research in New Zealand. This thesis partly reflects my professionally driven interest, as a cross-disciplinary learning advisor; in the nature, extent, interaction and effect of student, supervisor, department, university and external practices in relation to postgraduate geography research in New Zealand since 1993. I am asking participants to document and codify practices that they have typically implemented and experienced, as I perceive many of the practices associated with postgraduate geography research that I have witnessed to be highly effective and exemplary in terms of knowledge production, student learning and research training.

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As my records show that you have completed and/or supervised geography masters and/or doctoral research at a New Zealand university since 1993, you are invited to participate in this research and I appreciate any assistance you can offer. If you consent to me undertaking this research, please sign the consent form and post it to me. This consent form will be stored in a locked cabinet on The University of Auckland premises, separate from the completed questionnaires, for six years before it is destroyed by shredding.

Participation in this research is completely voluntary. Neither students' grades nor academic relationships with the department or members of staff; or employment status of academic staff; will be affected by either refusal or agreement to participate in this research. You have the right to withdraw from the project at any time without explanation. You also have the right to withdraw your information/ data from the project without explanation up to 31 December 2009.

All data collected will be confidential to me as the principal investigator, and all data will be written up in such a way that participants are not identified or identifiable. Paper copies of all data collected will be stored in a locked cabinet on The University of Auckland premises until the conclusion of the research project, at which time it will be destroyed by shredding. Based on the findings of this questionnaire, I will write papers for publication; give conference and seminar presentations; write a report for dissemination to participants, academic departments and other interested parties; and complete a doctoral research thesis.

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Recognising that you might initially feel challenged by my requests in the questionnaire to document or codify practices that you implemented or experienced some years ago and with limited opportunity for reflection, examples of possible practices are provided below. These are offered simply to stimulate thinking, and are not intended to limit or overly-influence your response. In response to question one, supervisor practices might include:

Appendix H: Participant information sheet for students

- | |
|---|
| <ul style="list-style-type: none"> • Developing cross-disciplinary research teams or projects. • Having a series of meetings at the outset to plan a realistic thesis process, including setting goals and clarifying expectations. • Supervisor(s) working regularly with student teams. • Supervisor and student spending time together in the field or laboratory. • Undertaking a whiteboard session once all draft chapters of the thesis have been completed to clarify the argument as expressed through the text. • Supervisor and student learning together and from each other through sharing and valuing knowledge and experiences. • Supervisor(s) modelling the academic research and/or writing process to the student. |
|---|

In response to question five of the questionnaire, possible practices might include:

- | |
|--|
| <ul style="list-style-type: none"> • An external organisation providing a research topic, funding, resources or supervisory advice in support of postgraduate research. • Involvement in collaborative research projects with students or staff from other universities or organisations. • A specific change in government policy that impacted on your postgraduate research practices and experiences. |
|--|

In response to question six of the questionnaire, possible practices might include:

Research student practices	<ul style="list-style-type: none"> • Students forming support groups with their peers • Students sharing resources
Department practices	<ol style="list-style-type: none"> 2. Providing shared work spaces for research students. <ul style="list-style-type: none"> • Providing teaching opportunities for research students. • Providing conference funding for research students. • Providing financial incentives for students to publish. • Requiring research students to give seminars.
University practices	<ul style="list-style-type: none"> • Providing workshops to develop supervisory, research, or thesis writing skills. • Providing scholarships and other financial assistance to undertake postgraduate research. • Providing financial incentives for timely completion.

Thank you very much for your time and help in making this study possible. If you have any questions or want further information please contact me as the principal investigator, my primary supervisor, or the Director of the School of Geography, Geology and Environmental Science; at The University of Auckland:

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For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Office of the Vice Chancellor, Private Bag 92019, Auckland 1142. Telephone 373-7599 extn. 87830.

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE on 9 May 2007 for a period of 3 years from 1 June 2007, Reference Number 2007/144.

Appendix I: Consent form for participants

SCHOOL OF GEOGRAPHY, GEOLOGY & ENVIRONMENTAL SCIENCE

email: sges@auckland.ac.nz
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The University of Auckland
Private Bag 92019
Auckland, New Zealand

www.auckland.ac.nz

Project Title: Landscape of postgraduate geography research experiences in New Zealand

Researcher: Julie Trafford

Consent Form (Former Research Student and/or Supervisor)

This consent form will be stored in a locked cabinet on The University of Auckland premises, separate from the completed questionnaires, for six years before it is destroyed by shredding.

I agree to take part in this research.

I have read the participant information sheet. I understand the nature of the research and why I have been selected to participate in this research. I have had the opportunity to ask questions and have them answered to my satisfaction. I also understand that participation in this research is completely voluntary.

- I understand that participation in this study will involve completion of a questionnaire, which will take up to one hour.
- I understand that if I provide my name and contact email address at the conclusion of the questionnaire I may also be contacted by the researcher for further verbal or email clarification or discussion of my responses, which will take no more than one additional hour.
- I understand that neither grades nor academic relationships with the department or members of staff for postgraduate students; or employment status of academic staff; will be affected by either participation or non-participation in this research.
- I understand that I have the right to withdraw from the project at any time without explanation, and that I also have the right to withdraw my information/ data from the project without explanation up to 31 December 2009.
- I understand that all data collected will be confidential to the researcher, and all data will be presented or published in such a way that participants are not identified or identifiable.
- I understand that paper copies of the completed questionnaires will be stored in a locked cabinet on The University of Auckland premises, separate from the consent forms, until the completion of the research project, at which time they will be destroyed by shredding.
- I understand that after six years, the consent forms will be destroyed by shredding.

Full Name: _____ Signature: _____ Date: _____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE on 9 May 2007 for a period of 3 years from 1 June 2007, Reference Number 2007/144.

Appendix J: Master and PhD thesis completions by university and degree type

Appendix J Table 1: The University of Auckland geography masters and doctoral theses completed, 1993-2008 by degree

Year Completed	Master of Arts	Master of Science	Master of Philosophy	Total Masters	PhD	Total Masters and PhD
1993	14	19	1	34		34
1994	11	12		23	1	24
1995	18	16		34	1	35
1996	5	9		14		14
1997	12	19		31		31
1998	15	12		27	2	29
1999	10	15		25	5	30
2000	6	5		11	2	13
Total 1993-2000	91	107	1	199	11	210
2001	7	12		19		19
2002	8	12		20	3	23
2003	3	10		13	2	15
2004	4	15		19	2	21
2005	4	5		9	5	14
2006	3	13		16	5	21
2007	7	8		15	5	20
2008	2	1		3	2	5
Total 2001-2008	38	76		114	24	138
Total 1993-2008	129	183	1	313	35	348

Source: Data collected from university library catalogues and geography department records.

Appendix J: Master and PhD thesis completions by university and degree type

Appendix J Table 2: University of Waikato geography masters and doctoral theses completed, 1993-2008 by degree

Year Completed	Master of Social Science	Master of Science	Master of Philosophy	PhD	Doctor of philosophy	Total Masters	Total Doctorate	Total Masters and Doctorate
1993	12				2	12	2	14
1994	9					9		9
1995	11				1	11	1	12
1996	11				1	11	1	12
1997	9					9		9
1998	6	1		3		7	3	10
1999	5			1		5	1	6
2000	12				1	12	1	13
Total 1993-2000	75	1		4	5	76	9	85
2001	6		1			7		7
2002	1			4		1	4	5
2003	5			1		5	1	6
2004	5	1		3		6	3	9
2005	5	1				6		6
2006	1			1		1	1	2
2007	1	1				2		2
2008								
Total 2001-2008	24	3	1	9		28	9	37
Total 1993-2008	99	4	1	13	5	104	18	122

Source: Data collected from university library catalogues and geography department records.

Appendix J: Master and PhD thesis completions by university and degree type

Appendix J Table 3: Massey University geography masterate and doctoral theses completed, 1993-2008 by degree

Year Completed	Master of Arts	Master of Geography	Master of Science	Master of Philosophy	Total Masters	PhD	Total Masters and PhD
1993	2	1		1	4		4
1994							
1995				1	1	1	2
1996	2		2	1	5		5
1997				2	2		2
1998	1				1	1	2
1999	2			1	3	1	4
2000			1		1	1	2
Total 1993-2000	7	1	3	6	17	4	21
2001							
2002	1		1		2		2
2003			2		2		2
2004							
2005			1		1	1	2
2006						1	1
2007			1		1		1
2008					0		0
Total 2001-2008	1		5		6	2	8
Total 1993-2008	8	1	8	6	23	6	29

Source: Data collected from university library catalogues and geography department records.

Appendix J: Master and PhD thesis completions by university and degree type

Appendix J Table 4: Victoria University of Wellington geography masterate and doctoral theses completed, 1993-2008 by degree

Year Completed	MES	Master of Development Studies	Master of Arts	Master of Science	Master of Conservation Studies	Total Masters	PhD	Total Masters and PhD
1993				1		1	1	2
1994			3	4		7		7
1995			4	2		6	1	7
1996	1		3	4		8		8
1997	2		3	5		10	1	11
1998				3	1	4	2	6
1999	6	2	1	7		16		16
2000	8		1	11		20		20
Total 1993-2000	17	2	15	37	1	72	5	77
2001	7		1	1		9	1	10
2002	2		2	3		7	3	10
2003	3			7		10	4	14
2004	5	6	2	4		17		17
2005	5	10		4		19	2	21
2006	1			9		10	1	11
2007				5		5		5
2008				5		5	1	6
Total 2001-2008	23	16	5	38		82	12	94
Total 1993-2008	40	18	20	75	1	154	17	171

Source: Data collected from university library catalogues and geography department records.

Appendix J Table 5: University of Canterbury geography masterate and doctoral theses completed, 1993-2008 by degree

Year Completed	Master of Environmental Science	Master of Arts	Master of Science	Total Masters	PhD	Total Masters and PhDs
1993		4	9	13		13
1994	1	7	6	14	1	15
1995		8	16	24	1	25
1996	1	9	7	17	1	18
1997	1	5	7	13	3	16
1998	1	4	7	12	2	14
1999	2	3	7	12		12
2000		1	6	7	2	9
Total 1993-2000	6	41	65	112	10	122
2001	1	4	3	8		8
2002	1	1	6	8	1	9
2003		4	7	11	4	15
2004		4	5	9	2	11
2005	1	3	6	10	4	14
2006		5	3	8	1	9
2007		1	3	4		4
2008		1	2	3	3	6
Total 2001-2008	3	23	35	61	15	76
Total 1993-2008	9	64	100	173	25	198

Source: Data collected from university library catalogues and geography department records.

Appendix J: Master and PhD thesis completions by university and degree type

Appendix J Table 6: University of Otago geography masterate and doctoral theses completed, 1993-2008 by degree

Year Completed	Master of Regional and Resource Planning	Master of Planning	Master of Arts	Master of Science	Total Masters	PhD	Total Masters and PhDs
1993	12		4	3	19		19
1994	12		3	2	17	1	18
1995	11		4	5	20		20
1996	8		9	6	23		23
1997	12		6	5	23	1	24
1998	9		2	6	17	2	19
1999	19		2	7	28	2	30
2000	10		4	6	20	3	23
Total 1993-2000	93		34	40	167	9	176
2001	15		2	3	20	2	22
2002	7			4	11	1	12
2003	11		3	9	23		23
2004	17		2	2	21	1	22
2005	17		6	4	27	1	28
2006	11		2	2	15	1	16
2007	1	10	3	3	17	2	19
2008		17	1	3	21	1	22
Total 2001-2008	79	27	19	30	155	9	164
Total 1993-2008	172	27	53	70	322	18	340

Source: Data collected from university library catalogues and geography department records.

References

- Aalbers, M. B. (2004). Creative destruction through the Anglo-American hegemony: a non-Anglo-American view on publications, referees and language. *Area*, 36(3), 319-322.
- Aalbers, M. B., & Rossi, U. (2006). Beyond the Anglo-American hegemony in human geography: A European perspective. *GeoJournal*, 67(2), 137-147.
- Acker, S. (2001). The hidden curriculum in dissertation advising. In E. Margolis (Ed.), *The hidden curriculum in higher education* (pp. 61-77). New York: Routledge.
- Adkins, D. (2009). PhD pedagogy and the changing knowledge landscapes of universities. *Higher Education Research & Development*, 28(2), 165-177.
- Ahern, K., & Hawthorne, F. (2008). Computer facilitated reflective practice in a postgraduate supervisor's feedback to students. *International Journal for the Scholarship of Teaching and Learning*, 2(2), 1-16. Retrieved February 3, 2011, from <http://www.georgiasouthern.edu/ijstol>
- Aitchison, C., & Lee, A. (2010). Writing in, writing out: Doctoral writing as peer work. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 260-269). New York: Routledge.
- Akkerman, S., Petter, C., & de Laat, M. (2008). Organising communities-of-practice: facilitating emergence. *Journal of Workplace Learning*, 20(6), 383-399.
- Ako Aotearoa. (2008). *Dr Juliana Mansvelt – Tertiary teaching excellence. Teaching profile from Dr Juliana Mansvelt (School of People, Environment and Planning, Massey University (Palmerston North)) - a Sustained Excellence Award winner 2006*. Retrieved July 11, 2010, from <http://ako.aotearoa.ac.nz/community/ako-aotearoa-academy-tertiary-teaching-excellence/resources/pages/dr-juliana-mansvelt-tert>
- Ako Aotearoa. (2009). *Dr Eric Pawson- Tertiary teaching award. Teaching profile from Dr Eric Pawson (Department of Geography, University of Canterbury) - a Sustained Excellence Award winner 2009*. Retrieved December 5, 2010, from <http://ako.aotearoa.ac.nz/community/ako-aotearoa-academy-tertiary-teaching-excellence/resources/pages/dr-eric-pawson-tertiary->
- Ako Aotearoa. (2010). Sustained excellence: Sara Kindon. In *Profiling the 2010 recipients of the tertiary teaching excellence awards in tertiary education: Supporting excellence in tertiary education* (pp. 39-42). Wellington: AKO Aotearoa National Office.
- Ako Aotearoa. (2011). *Sustained excellence in tertiary teaching: Professor Robin Kearns*. Retrieved October 15, 2011, from <http://ako.aotearoa.ac.nz/ako-aotearoa/ako-aotearoa/news/excellent-teachers-inspiring-learner-success-0#robin-kearns>

References

- Alcorn, N. (2002). Commentary. Tertiary education in New Zealand: Issues and dilemmas. *New Zealand Journal of Educational Leadership*, 17, 83-87.
- Alibrandi, M. (2005). Forum: Roundtables of environmental and geographic discourse: Realigning paradigms. *International Research in Geographical and Environmental Education*, 14(2), 143-147.
- Allen, C., Smyth, E., & Wahlstrom, M. (2002). Responding to the field and to the academy: Ontario's evolving Ph.D. *Higher Education Research and Development*, 21(2), 203-214.
- Anderson, B., & Harrison, P. (2010). The promise of non-representational theories. In B. Anderson, & P. Harrison (Eds.), *Taking-place: Non-representational theories and geography* (pp. 1-36). Farnham, Surrey: Ashgate Publishing Ltd.
- Anderson, G., & Arsenault, N. (1998). *Fundamentals of educational research* (2nd ed.). London: Routledge Falmer.
- Anderson, K., & Smith, S. (2001). Editorial: Emotional geographies. *Transactions of the Institute of British Geographers*, 26(1), 7-10.
- Arksey, H., & Knight, P. (1999). *Interviewing for social scientists: An introductory resource with examples*. Thousand Oaks, CA: Sage.
- Aspland, T., Edwards, H., O'Leary, J., & Ryan, Y. (1999). Tracking new directions in the evaluation of postgraduate supervisors. *Innovative Higher Education*, 24(2), 127-147.
- Ateljevic, I., Harris, C., Wilson, E., & Collins, F. L. (2005). Towards a reflexive methodology in leisure research. *Leisure Sciences*, 21(1), 43-64.
- Atkins, P. (2004). Interdisciplinarity and positionality. *Interdisciplinarity Science Reviews*, 29(1), 2-5.
- Australian Learning and Teaching Council. (2010). *Learning and teaching academic standards project: Arts, social sciences and humanities, geography learning and teaching academic standards statement*. Australian Learning and Teaching Council. December 2010.
- Baber, Z. (2003). Provincial universalism: The landscape of knowledge production in an era of globalization. *Current Sociology*, 51(6), 615-623.
- Bærenholdt, J., Gregson, N., Everts, J., Granås, B., & Healey, R. (2010). Performing academic practice: Using the master class to build postgraduate discursive competences. *Journal of Geography in Higher Education*, 34(2), 283-298.
- Baerwald, T. (2010). Prospects for geography as an interdisciplinary discipline. *Annals of the Association of American Geographers*, 100(3), 493-501.
- Bailey, C., White, C., & Pain, R. (1999). Evaluating qualitative research: dealing with the tension between 'science' and 'creativity'. *Area*, 31(2), 169-183.

- Ballard, B., & Clanchy, J. (1993). Supervising students from overseas. Cited in Holdaway, E., DeBlois, C., & Winchester, I. (1995). Supervision of graduate students. *The Canadian Journal of Higher Education*, XXV(3), 1-29.
- Barrowman, R. (1999). *Victoria University of Wellington 1899-1999: A history*. Wellington: Victoria University Press.
- Barry, A., Born, G., & Wezkalnys, G. (2008). Logics of interdisciplinarity. *Economy and Society*, 37(1), 20-49.
- Bartlett, A., & Mercer, G. (1997). *Mud maps and mud cakes: Finding metaphors for postgraduate supervision*. Higher Education Research Development of Australasia (HERDSA) Conference Proceedings (pp. 48-54). Retrieved September 07, 2011, from <http://www.herdsa.org.au/wp-content/uploads/conference/1997/bartlet01.pdf>
- Bartlett, A., & Mercer, G. (2000). Reconceptualising discourses of power in postgraduate pedagogies. *Teaching in Higher Education*, 5(2), 195-204.
- Bassett, J. (1969). *The School of Engineering, University of Auckland 1906-1969: A history*. Auckland: The School of Engineering.
- Belich, J. (2001). *Paradise reforged: A history of the New Zealanders from the 1880s to the year 2000*. Auckland: Allen Lane/The Penguin Press.
- Bereiter, C. (2002). *Education and mind in the knowledge age*. Mahwah, NJ: Lawrence Erlbaum.
- Berg, L. (1994). Masculinity, place and a binary discourse of 'theory' and 'empirical investigation' in the human geography of Aotearoa/New Zealand. *Gender, Place and Culture*, 1(2), 245-260.
- Berg, L., & Kearns, R. A. (1998). Guest editorial: America unlimited. *Environment and Planning D: Society and Space* 16, 128-132.
- Berg, L. D., & Roche, M. M. (1997). Market metaphors, neo-liberalism and the construction of academic landscapes in Aotearoa/New Zealand. *Journal of Geography in Higher Education*, 21(2), 147-161.
- Bertram, G. (2003). New Zealand since 1984: Elite succession, income distribution and economic growth in a small trading economy. *GeoJournal*, 59(2), 93-106.
- Binns, T. (2011). New Zealand: Sharpening the focus, raising the profile. *New Zealand Geographer*, 67(1), 2-5.
- Binns, T., & Potter, R. (1989). Improving the effectiveness of postgraduate supervision: never mind the quality, feel the width. *Journal of Geography in Higher Education*, 13(2), 210-216.
- Biological Economies. (2011). *Biological economies project*. University of Canterbury, Geography. Retrieved April 13, 2011, from http://www.geog.canterbury.ac.nz/research/staff/biol_econ.shtml
- Bonnett, A. (2003). Geography as the world discipline: connecting popular and academic geographical imaginations. *Area*, 35(1), 55-63.

References

- Boston, J. (1999). The funding of research in the tertiary sector. *ACCESS Critical Perspectives on Cultural and Policy Studies in Education*, 18(2), 103-119.
- Boud, D., & Lee, A. (2005). 'Peer learning' as pedagogic discourse for research education. *Studies in Higher Education*, 30(5), 501-516.
- Boud, D., & Lee, A. (2009). Introduction. In D. Boud, & A. Lee (Eds.), *Changing practices in doctoral education* (pp. 1-9). London: Routledge.
- Bradford, M. (1988). Programmed research: the multidisciplinary doctoral programme in the social sciences at the University of Manchester. *Journal of Geography in Higher Education*, 12(2), 156-159.
- Brantmeier, E. J. (n.d.). *Empowerment pedagogy: Co-learning and teaching*. Retrieved September 16, 2011, from <http://www.indianan.edu/~leehman/Brantmeier.pdf>
- Brennan, M. (1995). Education doctorates: Reconstructing professional partnerships around research? *The Australian Universities' Review*, 38(2), 20-22.
- Brew, A. (2001). *The nature of research: Inquiry in academic contexts*. London: Routledge Falmer.
- Brew, A., & Peseta, T. (2004). Changing postgraduate supervision practice: A programme to encourage learning through reflection. *Innovations in Education and Teaching International*, 41(1), 5-22.
- Brierley, G. (2009). Communicating geomorphology. *Journal of Geography in Higher Education*, 33(1), 3-17.
- Britton, S., Le Heron, R., & Pawson, E. (Eds.). (1992). *Changing Places in New Zealand: Geographies of Restructuring*. Christchurch: New Zealand Geographical Society.
- Brown, A. (2010). Research questions. What's worth asking and why? In P. Thomson & M. Walker, (Eds.), *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences* (pp. 172-182). New York: Routledge.
- Brown, G., & Atkins, M. (1988). *Teaching in higher education*. New York: Methuen and Co. Ltd.
- Bruner, J. (1983). *Child's talk. Learning to use language*. Oxford: Oxford University Press.
- Building Research Capability in the Social Sciences Network. (2012). *The BRCSS Network*. Retrieved March 19, 2012, from <http://www.brcss.net.nz/>
- Buller, H. (2008). The lively process of interdisciplinarity. *Area*, 41(4), 395-403.
- Burnett, D. (1999). The supervision of doctoral dissertations using a collaborative cohort model. *Counselor Education and Supervision*, 39(1), 46-52.
- Busch, L. (2007). Performing the economy, performing science: From neoclassical to supply chain models in the agrifood sector. *Economy and Society*, 36(3), 437-466.

- Callon, M. (2007). What does it mean to say that economics is performative? In D. MacKenzie, F. Muniesa, & L. Siu (Eds.), *Do economists make markets? On the performativity of economics* (pp. 311-357). Princeton, NJ: Princeton University Press.
- Campbell, H., Burton, R., Cooper, M., Henry, M., Le Heron, E., Le Heron, R., Lewis, N., Pawson, E., Perkins, H., Roche, M., Rosin, C., & White, T. (2009). Forum: From agricultural science to “biological economics”? *New Zealand Journal of Agricultural Research*, 52(1), 91-97.
- Chalkley, B. (2006). Tertiary teaching excellence: the CETLS scheme in England. *New Zealand Geographer*, 62(2), 155-157.
- Chalmers, L. (2005). Traces of the secondary geography curriculum. *New Zealand Geographer*, 61(2), 148-157.
- Chalmers, L., & Keown, P. A. (2003). Geographical education in New Zealand during the last decade. *International Research in Geographical and Environmental Education*, 12(3), 268-274.
- Chalmers, L., Keown, P., & Kent, A. (2002). Exploring different perspectives in secondary geography: professional development options. *International Research in Geographical and Environmental Education*, 11(4), 313-325.
- Chiappetta-Swanson, C., & Watt, S. (2011). Good practice in the supervision and mentoring of postgraduate students: It takes an academy to raise a scholar. McMaster University Centre for Leadership and Learning. Retrieved September 7, 2011, from <http://ccl.mcmaster.ca/resources/pdf/It%20Takes%20an%20Academy%20to%20Raise%20a%20Scholar.pdf>
- Clark, B. R. (1997). The modern integration of research activities with teaching and learning. *Journal of Higher Education*, 68(3), 242-255.
- Clifford, N. J. (2002). The future of geography: when the whole is less than the sum of its parts. *Geoforum*, 33(4), 431-436.
- Collins. (2003). *Collins English Dictionary – Complete and unabridged* (6th ed.). UK: Collins.
- Connell, G. (2006). Conference Report: ‘How is geography going to help me when I leave school?’ A secondary teacher’s perspective on the International Geographic Union (IGU) Conference, Brisbane, Australia, July 2006. *New Zealand Geographer*, 62(3), 221.
- Connell, R. W. (1985). How to supervise a PhD. *Vestis*, 28(2), 38–41.
- Connell, R. (2007). *Southern theory: The global dynamics of knowledge in social science*. Crows Nest: Allen and Unwin.
- Conrad, L. (2008). Griffith University GIHE Learning and Teaching Newsletter (Teachtalk), 07. *From nuclear to extended family: A new metaphor for supervision of RHD students*. Retrieved September 7, 2011, from http://www3.griffith.edu.au/03/lt/teachtalk/teachtalk_05.php
- Cooke, R., & Gardiner, R. (2004). Foreword. In J. A. Matthews & D. T Herbert (Eds.), *Unifying geography: Common heritage, shared future* (pp. x-xi). Oxfordshire: Routledge.

References

- Council of Graduate Schools. (1990). *Research student and supervisor: An approach to good supervisory practice*. Washington DC: Council of Graduate Studies.
- Council on Higher Education. (2003). *Improved teaching and learning resources. Drafts for 2002 workshops (1-7)*. South Africa: Council on Higher Education's Quality Committee. Retrieved April 21, 2011, from www.che.ac.za/documents/d000087/ITL_Resource_no7.doc
- Crang, M. (1997). Analyzing qualitative materials. In R. Flowerdew, & D. Martin (Eds.), *Methods in human geography – a guide for students doing a research project* (pp. 189-196). London: Longman.
- Crozier, M. (2006). Restoring the name of Geography at Victoria University of Wellington. *New Zealand Geographer*, 62(3), 223.
- Cryer, P. (1997). Handling common dilemmas in supervision. Buckingham: SRHE/THES.
- Cryer, P. (1998). Transferable skills, marketability and lifelong learning: the particular case of postgraduate research students. *Studies in Higher Education*, 23(2), 207-216.
- Cumming, J. (2009). Representing doctoral practice in the laboratory sciences. In D. Boud, & A. Lee (Eds.), *Changing practices in doctoral education* (pp. 113-125). London: Routledge.
- Cumming, J. (2010a). Contextualised performance: reframing the skills debate in research education. *Studies in Higher Education*, 35(4), 405-419.
- Cumming, J. (2010b). Doctoral enterprise: A holistic conception of evolving practices and arrangements. *Studies in Higher Education*, 35(1), 25-39.
- Curtis, B. (2007). Academic life: Commodification, continuity, collegiality, confusion and the Performance Based Research Fund. *New Zealand Journal of Employment Relations*, 32(2), 2-17.
- Curtis, B. (2008). The Performance Based Research Fund: Research assessment and funding in New Zealand. *Globalisation, Societies and Education*, 6(2), 179-194.
- Curtis, B., & Mathewman, S. (2005). The managed university: The PBRF, its impacts and staff attitudes. *New Zealand Journal of Employment Relations*, 30(2), 1-18.
- Cutter, S., Gollidge, R., & Graf, W. (2002). The big questions in geography. *The Professional Geographer*, 54(3), 305-317.
- Delanty, G. (2002). The university in the knowledge society. *Organization*, 8(2), 149-153.
- Delyser, D. (2003). Teaching graduate students to write: a seminar for thesis and dissertation writers. *Journal of Geography in Higher Education*, 27(2), 169-181.
- Dewsbury, J., Harrison, P., Rose, M., & Wylie, J. (2002). Introduction: Enacting geographies. *Geoforum*, 33(4), 437-440.
- Durning, B. (2004). Planning academics and planning practitioners: Two tribes or a community of practice? *Planning, Practice & Research*, 19(4), 435-446.

- Dwyer, C. (2001). Linking the research and teaching: A staff-student interview project. *Journal of Geography in Higher Education*, 25(3), 357-366.
- Edwards, A. (2005). Let's get beyond community and practice: the many meanings of learning by participating. *The Curriculum Journal*, 16(1), 49-65.
- Ekinsmyth, C. (2002). Feminist cultural geography. In P. Shurmer-Smith (Ed.), *Doing cultural geography* (pp. 41-52). London: Sage Publications.
- Enders, J. (2005). Border crossings: Research training, knowledge dissemination and the transformation of academic work. *Higher Education*, 49(1/2), 119-133.
- Engeström, Y. (1993). Developmental studies of work as a testbench of activity theory: The case of primary care medical practice. In S. Chaiklin, & J. Lave (Eds.), *Understanding practice: Perspectives on activity and context* (pp. 64-103). Cambridge: Cambridge University Press.
- Engeström, Y. (1999). Introduction. In Y. Engeström, R. Miettinen, & R. L. Punamaki (Eds.), *Perspectives on activity theory* (pp. 1-16). Cambridge: Cambridge University Press.
- England, K. (1994). Getting personal: reflexivity, positionality, and feminist research. *Professional Geographer*, 46(1), 80-89.
- Eraut, M. (2002). *Conceptual analysis and research questions: Do the concepts of "Learning Community" and "Community of Practice" provide added value?* Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA, April 1-5.
- Evans, T. (2010a). Supervising part-time doctoral students. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 131-137). New York: Routledge.
- Evans, T. (2010b). Understanding doctoral research for professional practitioners. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 66-75). New York: Routledge.
- Fahy, J., Hurley, S. K., Hooley, G., & DeLuca, L. M. (2009). *Resources, capabilities and competition in higher education*. Paper presented at the Australian & New Zealand Marketing Academy Conference (ANZMAC), Melbourne, Australia, 30 November – 2 December, 2009. Retrieved June 3, 2011, from <http://www.duplication.net.au/ANZMAC09/Papers.html#F>
- Featherstone, M. (1995). *Undoing culture: Globalization, postmodernism and identity*. London: Sage Publications Ltd.
- Fincher, R. (2004). Geography and futures presidential address to the Institute of Australian Geographers Conference, Adelaide, April 2004. *Australian Geographical Studies*, 42(3), 299-306.
- Finnegan, D. A. (2008). The spatial turn: Geographical approaches in the history of science. *Journal of the History of Biology*, 41(2), 369-388.

References

- Fitzsimmons, M. (2004). Engaging ecologies. In P. Cloke, P. Crang, & M. Goodwin (Eds.), *Envisioning human geographies* (pp. 30-47). London: Edward Arnold.
- Foote, K. E. (2010). Creating a community of support for graduate students and early career academics. *Journal of Geography in Higher Education*, 34(1), 7-19.
- Foucault, M. (1980). *Power/knowledge: Selected interviews and other writings 1972-1977*. Hemel Hempstead, Herts: Harvester Press.
- Franks, T. (1999). Capacity building and institutional development: Reflections on water. *Public Administration and Development*, 19(1), 51-61.
- Fuller, I. C. (2006). What is the value of fieldwork? Answers from New Zealand using two contrasting undergraduate physical geography fieldtrips. *New Zealand Geographer*, 62(3), 215-220.
- Fuller, I., Rawlinson, S., & Bevan, R. (2000). Evaluation of student learning experiences in physical geography fieldwork: Paddling or pedagogy? *Journal of Geography in Higher Education*, 24(2), 199-215.
- Gardner, R., & Craig, L. (2001). Is geography history? *Journal of Geography in Higher Education*, 25(1), 5-10.
- Gaspar, D. (2010). Interdisciplinarity and transdisciplinarity. Diverse purposes of research: theory-oriented, situation-oriented, policy-oriented. In P. Thomson, & M. Walker (Eds.), *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences* (pp. 52-67). New York: Routledge.
- Gee, J. P. (2005). Semiotic social spaces and affinity spaces: From the age of mythology to today's schools. In D. Barton, & K. Tusting (Eds.), *Beyond communities of practice: Language, power, and social context* (pp. 214-232). New York: Cambridge University Press.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M. (1994). *The new production of knowledge: The dynamics of science and research in contemporary societies*. London: Sage.
- Gibson, C. (2007). Geography in higher education in Australia. *Journal of Geography in Higher Education*, 31(1), 97-119.
- Gibson, C. (2009). Human geography. In R. Kitchin & N. Thrift (Eds.), *The International Encyclopedia of Human Geography*. Retrieved June 15, 2010, from <http://www.elsevierdirect.com/brochures/hugy/SampleContent/Human-Geography.pdf>
- Gibson-Graham, J. K. (2008). Diverse economies: performative practices for 'other worlds'. *Progress in Human Geography*, 32(5), 613-632.
- Gibson-Graham, J. K., & Roelvink, G. (2009). Social innovation for community economies. In D. MacCallum, F. Moulaert, J. Hillier, & S. Vicari (Eds.), *Social Innovation and Territorial Development* (pp. 32-51). London: Ashgate.
- Gibson-Graham, J. K., & Roelvink, G. (2010). An economic ethics for the Anthropocene. *Antipode* 41(1), 320-346.

- Giddens, A. (1998). *The third way: The renewal of social democracy*. Cambridge: Polity.
- Gieryn, T. F. (2000). A space for place in sociology. *Annual Review of Sociology*, 26, 463-496.
- Gilbert, J. (2005). *Catching the knowledge wave? The knowledge society and the future of education*. Wellington: NZCER Press.
- Giles, C. L., & Council, I. G. (2004). *Who gets acknowledged: Measuring scientific contributions through automatic acknowledgement indexing*. Retrieved May 5, 2007, from <http://clgiles.ist.psu.edu/papers/PNAS-2004-Acknowledgements.pdf>
- Golde, C. M. (2010). Adapting signature pedagogies in doctoral education. The case of teaching how to work with the literature. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 106-120). New York: Routledge.
- Gopal, P. (n.d.). *E-supervision: A boost for post graduate studies at Univeriti Sains Malaysia*. Retrieved September 4, 2009, from http://api.ning.com/files/966P06t9Gf2V5toaOpEHZN5I5jPL7l-TzS9YSHRLXvoaKbe*i3NXf-qEnpDyFw9LvUI06avlNfJAjJ4T*AZZMYEw77JkyfG/301.pdf
- Gore, J. (1993). *The struggle for pedagogies: Critical and feminist discourses as regimes of truth*. New York: Routledge.
- Gorrie, A. M. (1955). *A history of geography in New Zealand*. Unpublished MA thesis, Geography, University of Auckland, New Zealand.
- Goudie, A. (1993). Guest editorial: schools and universities – the great divide. *Geography*, 78(4), 338.
- Gould, B. (1999). Commentary. The future of New Zealand universities. *New Zealand Journal of Educational Studies*, 34(1), 28-34.
- Grant, B. (1999). *Walking on a rickety bridge: mapping supervision*. Presentation at the HERDSA Annual International Conference, Melbourne, 12-15 July 1999, pp. 1-11. Retrieved June 7, 2008, from <http://www.herdsa.org.au/branches/vic/Cornerstones/pdf/grant.pdf>
- Grant, B. (2003). Mapping the pleasures and risks of supervision. *Discourse: Studies in the Cultural Politics of Education*, 24(2), 175-190.
- Grant, B. (2005). Fighting for space in supervision: Fantasies, fairytales, fictions and fallacies. *International Journal of Qualitative Studies in Education*, 18(3), 337-354.
- Grant, B. (2008). Agonistic struggle: Master and slave dialogues in humanities supervision. *Arts & Humanities in Higher Education*, 27(1), 9-27.
- Grant, B. (2010). Negotiating the layered relations of supervision. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 88-105). London: Routledge.

References

- Grant, B. M., & Graham, A. (1994). Guidelines for discussion: A tool for managing postgraduate supervision. In O. Zuber-Skerritt, & Y. Ryan (Eds.), *Quality in postgraduate education* (pp. 165-177). London: Kogan Page.
- Gray, J. (1999). *False dawn: the delusions of global capitalism*. London: Granta Books.
- Green, B. (2005). Unfinished business? Subjectivity and supervision. *Higher Education Research & Development*, 24(2), 151-163.
- Green, B., & Lee, A. (1995). Theorising postgraduate pedagogy. *Australian Universities' Review*, 38(2), 40-45.
- Gregory, D. (1994). *Geographical imaginations*. Cambridge, MA: Blackwell.
- Gregson, N., Simonsen, K., & Vaiou, D. (2003). Writing (across) Europe: on writing spaces and writing practices. *European Urban and Regional Studies*, 10(1), 5-22.
- Grigg, L., Johnston, R., & Milsom, N. (2003). *Emerging issues for cross-disciplinary research: conceptual and empirical dimensions*. Canberra: Commonwealth of Australia.
- Gunn, S. (2001). The spatial turn: Changing histories of space and place. In S. Gunn, & R. J. Morris (Eds.), *Identities in space: Contested terrains in the western city since 1850* (pp. 1-14). Aldershot: Ashgate.
- Gutiérrez, J., & López-Nieva, P. (2001). Are international journals of human geography really international? *Progress in Human Geography*, 25(1), 53-69.
- Hall, J. S. (2002). Reconsidering the connection between capacity and governance. *Public Organization Review*, 2(1), 23-43.
- Hall, T. (1999). *Key skills in geography in higher education: a survey report*. Geography and Environmental Management Research Unit, Cheltenham and Gloucester College of Higher Education. Retrieved November 10, 2003, from <http://www.chelt.ac.uk/gdn/confpubl/keyskill.htm>
- Halse, C., & Malfroy, J. (2010). Retheorising doctoral supervision as professional work. *Studies in Higher Education*, 35(1), 79-92.
- Hammond, J. (1992). *The institutionalisation of geography in New Zealand, an interpretation*. Unpublished PhD thesis in Geography, Massey University, New Zealand.
- Hanson, S. (2003). Teaching, research and lifelong learning. *Journal of Geography in Higher Education*, 25(1), 110-112.
- Haraway, D. (1988). Situated knowledges: The science question in feminism as a site of discourse on the privilege of partial perspective. *Feminist Studies*, 14(3), 575-599.
- Haraway, D. (1991). *Simians, cyborgs, and women: the reinvention of nature*. New York: Routledge.

- Harlow, B. (1994). Sites of struggle: immigration, deportation, prison, and exile. In M. Higonnet, & J. Templeton (Eds.), *Reconfigured spheres: feminist explorations of literary space* (pp. 108-124). Amherst: University of Massachusetts Press.
- Harris, A., Lewis, N., & Le Heron, R. (2010). *Geographic imaginaries in Auckland schools*. Working paper developed from a paper presented at Positioning Geography: Strategic Issues in Geographical Education Conference, The University of Waikato, January 2010.
- Harrison, S., Massey, D., Richards, K., Magilligan, F. J., Thrift, N., & Bender, B. (2004). Thinking across the divide: perspectives in the conversations between physical and human geography. *Area*, 36(4), 435-442.
- Harvey, D. (2000). *Cartographic identities: Geographical knowledges under globalization*. Paper presented to the 29th IGC Meeting, Seoul, South Korea, August, 2000.
- Hattie, J. (2010). On being a “Critic and conscience of society”: The role of the education academic in public debates. *New Zealand Journal of Educational Studies*, 45(1), 85-96.
- Hay, I. M. (2008). Postcolonial practices for a global virtual group: The case of the International Network for Learning and Teaching Geography in Higher Education (INLT). *Journal of Geography in Higher Education*, 32(1), 15-32.
- Hay, I., Foote, K., & Healey, M. (2000). From Cheltenham to Honolulu: the purposes and projects of the International Network for Learning and Teaching Geography in Higher Education. *Journal of Geography in Higher Education*, 24(2), 221-227.
- Healey, M. (2006). From Hawaii to Glasgow: The International Network for Learning and Teaching in Geography in Higher Education (INLT) five years on. *Journal of Geography in Higher Education*, 30(1), 65-75.
- Healey, M., Bloomhof, J., & Thomas, N. (2003). *Linking teaching and research in geography, earth and environmental sciences*. Retrieved March 15, 2007, from <http://www.gees.ac.uk/linktr/linktr.htm#ltringees>
- Healey, M., Foote, K., & Hay, I. (2000). *Developing the International Network for Learning and Teaching (INLT) Geography in Higher Education*. Paper presented to the International Geographical Union Commission on Geographical Education Symposium, Kyongju, Korea, 6-13 August, 2000.
- Hegarty, K. (2007). *Other scholars' knowledge: interdisciplinarity and sustainability*. Presentation at the Learning Together in Higher Education Conference, University of London, 21-24 July, 2007.
- Hegarty, K. (2008). Sustaining knowledges: using communities of practice to foster sustainability literacy in disciplines and curriculum. *The RMIT Learning and Teaching Journal*. Retrieved November 11, 2009, from <http://emedia.rmit.edu.au/edjournal/vol3,ssue2,2008-issue/contents?q=node/365>
- Hegarty, K. (2009). Sustaining collegiality through the imperative of interdisciplinary practice. *London Review of Education*, 7(1), 83-90.

References

- Higgitt, D. L., & Haigh, M. J. (2006). International advice. *Journal of Geography in Higher Education*, 30(1), 1-5.
- Hodge, B. (1995). Monstrous knowledge: Doing PhDs in the new humanities. *Australian Universities' Review*, 38(2), 35-39.
- Hodgson, P. (Hon.). (2008). *Another step forward for New Zealand research*. New Zealand Government: Press Release, 6 August.
- Hopkins, P. E. (2009). Women, men, positionalities and emotion: Doing feminist geographies of religion. *ACME: An International E-Journal for Critical Geographies*, 8(1), 1-17.
- Howett, M. (English-copy Ed.). (2011). Getting your thesis off to a good start: Guide for doctoral students. Bureaux de l'égalité des Hautes écoles universitaires de la Suisse Latine (BULA) with the support of the Swiss Federal Equal Opportunity at Universities Programme. Retrieved September 07, 2011, from <http://www.unige.ch/rectorat/egalite/index/guideDOCT-ENcomplet.pdf>
- Humphrey, R., & McCarthy, P. (1999). Recognising difference: providing for postgraduate students. *Studies in Higher Education*, 24(3), 371-386.
- INLT (International Network for Learning and Teaching Geography in Higher Education). (n.d.) Retrieved August 11, 2011, from <http://www.geog.canterbury.ac.nz/inlt/>
- Iveson, K., & Neave, M. (2010). Teaching across the divide: Physical and human geographies of Hurricane Katrina. *Journal of Geography in Higher Education*, 34(4), 581-593.
- Jackson, P. (1993). Changing ourselves: A geography of position. In R. J. Johnston (Ed.), *The challenge for geography, a changing world: a changing discipline* (pp. 198-214). Oxford: Blackwell Publishers.
- Jackson, P. (2000). New directions in human geography. In A. Kent (Ed.), *Reflective practice in geography teaching* (pp. 50-56). London: Sage.
- James, R., & Baldwin, G. (1999). *Eleven practices of effective postgraduate supervisors*. The University of Melbourne: CSHE.
- Janssen, A. (2005). *Postgraduate research supervision: Otago students' perspectives on: quality supervision; problems encountered in supervision*. Dunedin: University of Otago. Retrieved October 22, 2011, from <http://www.otago.ac.nz/study/phd/handbook/otago001978.html>
- Jenkins, A. (2000). The relationship between teaching and research: Where does geography stand and deliver? *Journal of Geography in Higher Education*, 24(3), 325-351.
- Jobberns, G. (1945). Geography and national development. *New Zealand Geographer*, 1(1), 5-18.
- Johnson, L., Lee, A., & Green, B. (2000). The PhD and the autonomous self: gender, rationality and postgraduate pedagogy. *Studies in Higher Education*, 25(2), 135-147.
- Johnston, R. (2003). Geography: a different sort of discipline? *Transactions of the Institute of British Geographers*, 28(2), 133-141.

- Johnston, R. (2004). Whose geography? A diversity of definitions, a confusion of meanings and the future. *Journal of Geography in Higher Education*, 28(1), 9-15.
- Johnston, R. (2006). Geography and the social sciences in Australia: an opportunity lost? [Review of the book *The Cambridge handbook of social sciences in Australia*, by I. McAllister, S. Dowrick, & R. Hassan (Eds.). (2003). Cambridge: Cambridge University Press]. *Australian Geographer*, 37(2), 279-284.
- Johnston, R. (2009a). On geographic and geography. *New Zealand Geographer*, 65(3), 167-170.
- Johnston, R. (2009b). [Review of the book *What is geography?* by A. Bonnett (2008). London: Sage]. *Progress in Human Geography*, 33(2), 286-289.
- Johnston, R., Gregory, D., & Smith, D. (Eds.). (2000). *Dictionary of human geography* (4th ed.). Oxford: Blackwell.
- Johnston, W. B. (1981). George Jobberns. In T. W. Freeman (Ed.), *Geographers Bibliographical Studies* 5, 73-76.
- Jones, A., & Murphy, J. T. (2010). Practice and economic geography. *Geography Compass*, 4(4), 303-319.
- Jones, R. (2009). Categories, borders and boundaries. *Progress in Human Geography*, 33(2), 174-189.
- Kastner, J., McCarthy, K., Thompson, N., & Weizman, E. (2009). The new geography. A roundtable. *Bookforum*, Apr/May. Retrieved May 21, 2011, from http://www.bookforum.com/inprint/016_01/3511
- Kearns, H., Gardiner, M., & Marshall, K. (2008). Innovation in PhD completion: the hardy shall succeed (and be happy!). *Higher Education Research & Development*, 27(1), 77-89.
- Kearns, R. (2001). (Dis)spirited geography? *Journal of Geography in Higher Education*, 25(3), 299-309.
- Kearns, R., & Nichol, S. (Eds.). (2004). Editorial: Understanding our place in the world. *New Zealand Geographer*, 60(1), 1.
- Kearns, R., & Nichol, S. (Eds.). (2007). Editorial: The New Zealand Geographer becomes an ISI-listed journal. *New Zealand Geographer*, 63(3), 159.
- Kearns, R., Nichol, S., & Flaws, M. (Eds.) (2005). Editorial: Repositioning ourselves. *New Zealand Geographer*, 61(1), 1-2.
- Kearns, R., & Panelli, R. (2006). Country report. Directions to enlarge our worlds? Social and cultural geography in New Zealand. *Social and Cultural Geography*, 7(2), 319-330.
- Kelsey, J. (1995). *The New Zealand experiment: A world model for structural adjustment*. Auckland: Auckland University Press with Bridget Williams Books.
- Kelsey, J. (1997). *The New Zealand Experiment: A World Model for Structural Adjustment?* (2nd ed.). Auckland: Auckland University Press with Bridget Williams Books.

References

- Kench, P., Bryan, K., Hart, D., Kennedy, D., & Hilton, M. (2008). A commentary on coastal research in New Zealand universities. *New Zealand Geographer*, 64(2), 93-104.
- Kennedy, D., & Hart, D. (2008). The New Zealand coast: Perspectives on science and management. *New Zealand Geographer*, 64(2), 91-92.
- Keown, P., & McPherson, D. (2004). Beyond the “mish-mash: a new opportunity for curriculum change in geography”. *New Zealand Journal of Geography*, 117(2), 1-9.
- Kerski, J. (2005). Realigning paradigms – Again: Interdisciplinary education, Round 10. *International Research in Geographical and Environmental Education*, 14(2), 155-156.
- Kindon, S. (2003). Participatory video in geographic research: a feminist practice of looking? *Area*, 35(2), 142–153.
- King, M. L. (1996). Graduate research supervision: Does economics and econometrics have the potential to provide greater satisfaction? *New Zealand Economic Papers*, 30(1), 109-116.
- Kitchin, R. (2003). Disrupting and destabilizing Anglo-American and English-language hegemony in geography. *Documents d'Anàlisi Geogràfica*, 42, 17-36.
- Kneale, P. (2002). Careers for geography graduates. *Journal of Geography in Higher Education*, 26(3), 405-412.
- Knowles, S. (1999). Feedback on writing in postgraduate supervision: Echoes in response – context, continuity and resonance. In A. Holbrook, & S. Johnston (Eds.), *Supervision of postgraduate research in education. Review of Australian Research in Education* (pp. 113-128). Victoria: AARE.
- Kobayashi, A. (1994). Coloring the field: Gender, ‘race’, and the politics of fieldwork. *Professional Geographer*, 46(1), 73–80.
- Kobayashi, A. (2003). GPC ten years on: Is self-reflexivity enough? *Gender, Place and Culture*, 10(4), 345-349.
- Krause, J. (2003). Tell the world about learning geography. *Geography*, 88(1), 4-14.
- Kuhn, T. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Larner, W. (1998). Hitching a ride on a tiger’s back: Globalisation and spatial imaginaries in New Zealand. *Environment and Planning D: Society and Space* 16(5), 599-614.
- Larner, W., & Le Heron, R. (2002a). From economic globalisation to globalising economic processes: Towards post-structural political economies. *Geoforum*, 33(4), 415-419.
- Larner, W., & Le Heron, R. (2002b). The spaces and subjects of a globalising economy: A situated exploration of method. *Environment and Planning D: Society and Space*, 20(6), 753-774.
- Larner, W., & Le Heron, R. (2003). The neoliberalising university? Spaces of policy, practices and performance. *New Zealand Journal of Sociology*, 18(2), 102-114.
- Larner, W., & Le Heron, R. (2005). Neo-liberalizing spaces and subjectivities: Reinventing New Zealand universities. *Organization*, 12(6), 843-862.

- Larner, W., Le Heron, R., & Lewis, N. (2007). Co-constituting 'after neoliberalism': Globalising governmentalities and political projects in Aotearoa/New Zealand. In K. England, & K. Ward (Eds.), *Neoliberalisation: States, networks, people* (pp. 233-247). London: Blackwell.
- Lau, L., & Pasquini, M. W. (2004). Meeting grounds: perceiving and defining interdisciplinarity across the arts, social sciences and sciences. *Interdisciplinary Science Reviews*, 29(1), 49-64.
- Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation*. Cambridge, MA: Cambridge University Press.
- Law, J., & Urry, J. (2004). Enacting the social. *Economy and Society*, 33(3), 390-410.
- Lee, Alison. (2008). *Broadening supervision beyond the individual: developing a rich learning environment for doctoral research*. Presentation based on materials put together for a supervision application in December 2007. Retrieved September 15, 2011, from http://www.gradschool.uts.edu.au/pdfs/2011_broadening_supervision.pdf
- Lee, A., & Boud, D. (2009). Framing doctoral education as practice. In D. Boud, & A. Lee (Eds.), *Changing practices in doctoral education* (pp. 10-25). London: Routledge.
- Lee, A., & Green, B. (1998). Introduction: Postgraduate studies/Postgraduate pedagogy? In A. Lee, & B. Green (Eds.), *Postgraduate studies: Postgraduate pedagogy* (pp. 1-8). University of Technology, Sydney: Centre for Language and Literacy, Faculty of Education and the University Graduate School.
- Lee, A., & Green, B. (2004). *Mobilising metaphors: Research/supervision/pedagogy*. Paper presented at the Quality in Postgraduate Research Conference, Adelaide, April 2004.
- Lee, A., & Green, B. (2009). Supervision as metaphor. *Studies in Higher Education*, 34(6), 615-630.
- Lee, A., & McKenzie, J. (2008). Evaluating doctoral supervision: Qualitative steps and emerging issues. Paper presented at Quality in Postgraduate Research: Research Education in the New Global Environment, Adelaide, April 2008. In M. Kiley, & G. Mullins (Eds.), *Quality in postgraduate research: Research education in the new global environment* (pp. 61-73). CEDAM, ANU, Canberra.
- Lee, Anne M. (2007). Developing effective supervisors: Concepts of research supervision. *South African Journal of Higher Education*, 21(4), 680-693.
- Lee, Anne M. (2008). How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education*, 33(3), 267-281.
- Le Heron, E., Le Heron, R., & Lewis, N. (2011). Performing research capability building in New Zealand's social sciences: capacity-capability insights from exploring the work of BRCSS's 'sustainability' theme, 2004-09. *Environment and Planning A*, 43(6), 1400-1420.
- Le Heron, R. (2005). Geographers play a major role in Building Research Capacity in the Social Sciences (BRCSS). *New Zealand Geographer*, 61(1), 66.

References

- Le Heron, R. (2006). Towards reconceptualising enterprise, entrepreneurship and entrepreneurial processes for sustainable futures: Contributions from economic geography. In J. Gattrell, & N. Reid (Eds.), *Enterprising worlds: A geographical perspective in economics, environment and ethics* (pp. 119-129). Dordrecht, The Netherlands: Springer.
- Le Heron, R. (2007). Globalisation, governance and post-structural political economy: Perspectives from Australasia. *Asia Pacific Viewpoint*, 48(1), 26-40.
- Le Heron, R. (2009). 'Rooms and moments' in neoliberalising policy trajectories of metropolitan Auckland, New Zealand: Towards constituting progressive spaces through post-structural political economy. *Asia Pacific Viewpoint*, 50(2), 135-153.
- Le Heron, R. (2010). *Making geography and geographers more visible beyond the education sector: linking sites of geographic practices and geographical education*. Presentation at the Positioning Geography: Strategic Issues in Geographical Education Conference, University of Waikato, Hamilton, New Zealand, 19-22 January 2010.
- Le Heron, R. (2011). *School of Environment, Professor Richard Le Heron*. Retrieved April 13, 2011, from http://web.env.auckland.ac.nz/people_profiles/leheron_r/
- Le Heron, R. (under reviewa). Co-learning and co-producing knowledge as geographic processes: Capacity-capability challenges of institutional imagination. Manuscript submitted for publication.
- Le Heron, R. (under reviewb). Placing geography's institutions into geographic pedagogy: Co-learning and co-producing knowledge as strategy to do geography differently. *The Professional Geographer*.
- Le Heron, R., Baker, R., & McEwen, L. (2006). Co-learning: Re-linking research and teaching in geography. *Journal of Geography in Higher Education*, 30(1), 77-87.
- Le Heron, R., & Hathaway, J. T. (2000). An international perspective on developing skills through geography programmes for employability and life: Narratives from New Zealand and the United States. *Journal of Geography in Higher Education*, 24(2), 271-276.
- Le Heron, R., & Lewis, N. (2007). Globalizing economic geographies in the context of globalizing higher education. *Journal of Geography in Higher Education*, 31(1), 5-12.
- Le Heron, R., & Lewis, N. (2011). Editorial: New value from asking 'Is geography what geographers do?' *Geoforum*, 42(1), 1-5.
- Le Heron, R., Murphy, L., Forer, P., & Goldstone, M. (Eds.). (1999). *Explorations in Human Geography: Encountering Place*. Auckland: Oxford University Press.
- Le Heron, R., & Pawson, E. (Eds.). (1996). *Changing places: New Zealand in the Nineties*. Auckland: Longman Paul.

- Le Heron, R., Trafford, J., Le Heron, E., & Kearns, R. (2010). Rethinking the geography PhD in New Zealand: navigating through contexts, circumstances and challenges. Unpublished manuscript.
- Leonard, D. (2010). The doctorate in the life course. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 171-184). New York: Routledge.
- Leshem, S. (2007). Thinking about conceptual frameworks in a research community of practice: a case of a doctoral programme. *Innovations in Education and Teaching International*, 44(3), 287-299.
- Lewis, N. (2004). Geographies of the 'New Zealand Experiment'. *GeoJournal*, 59(2), 161-166.
- Lewis, N. (2009). Progressive spaces of neoliberalism? *Asia Pacific Viewpoint*, 50(2), 113-119.
- Lewis, N. (2010). Distinguished New Zealand Geographer Award: Professor Richard Le Heron. *New Zealand Geographer*, 66(1), 86-87.
- Lewis, N. (2011). Political projects and micro-practices of globalising education: building an international education industry in New Zealand. *Globalisation, Societies and Education*, 9(2), 225-246.
- Lewis, N., Lerner, W., & Le Heron, R. (2008). The New Zealand designer fashion industry: Making industries and co-constituting political projects. *Transactions of the Institute of British Geographers*, 33(1), 42-59.
- Lewis, N., Le Heron, R., & Le Heron, E. (draft only). Experimentation in knowledge production in higher education: Engaging geography in and through New Zealand's BRCSS knowledge space.
- Li, T. M. (2007). Practices of assemblage and community forest management. *Economy and Society*, 36(2), 263-293.
- Lingard, B., & Gale, T. (2007). The emergent structure of feeling: What does it mean for critical educational studies and research? *Critical Studies in Education*, 48(1), 1-23.
- Longhurst, R., & Johnston, L. (2005). Changing bodies, spaces, places and politics: Feminist geography at the University of Waikato. *New Zealand Geographer*, 61(2), 94-101.
- Lorimer, H. (2005). Cultural geography: the busyness of being 'more-than-representational'. *Progress in Human Geography*, 29(1), 83-94.
- Lusted, D. (1986). Why pedagogy? *Screen*, 27(5), 2-14.
- Lynch, K. (2002). The future of geography: The debate continues. *Geography*, 87(2), 155-159.
- Mackinnon, J. (2004). Academic supervision: seeking metaphors and models for quality. *Journal of Further and Higher Education*, 28(4), 395-405.

References

- Malcolm, W., & Tarling, N. (2007). *Crisis of identity? The mission and management of universities in New Zealand*. Wellington: Dunmore Publishing.
- Malfroy, J. (2005). Doctoral supervision, workplace research and changing pedagogic practices. *Higher Education Research & Development*, 24(2), 165-178.
- Manathunga, C. (2005a). The development of research supervision: 'turning the light on a private space'. *International Journal for Academic Development*, 10(1), 17-30.
- Manathunga, C. (2005b). Early warning signs in postgraduate research education: a different approach to ensuring timely completions. *Teaching in Higher Education*, 10(2), 219-223.
- Manathunga, C., Lant, P., & Mellick, G. (2006). Imagining an interdisciplinary doctoral pedagogy. *Teaching in Higher Education*, 11(3), 365-379.
- Manathunga, C., Peseta, T., & McCormack, C. (2010). Supervisor development through creative approaches to writing. *International Journal for Academic Development*, 15(1), 33-46.
- Massey, D. (2005). *For space*. London: Sage.
- Massey, D., & Thrift, N. J. (2002). The passion of place. In R. J. Johnston, & M. Williams (Eds.), *A century of British geography* (pp. 275-299). Oxford: Oxford University Press.
- Matthews, J.A., & Herbert, D.T. (2004). Unity in geography: Prospects for the discipline. In J.A. Matthews & D.T. Herbert (Eds.). *Unifying geography: Common heritage, shared future* (pp. 369-393). Oxfordshire: Routledge.
- McClure, J. (2005). Preparing a laboratory-based thesis: Chinese international research students' experiences of supervision. *Teaching in Higher Education*, 10(1), 3-16.
- McDowell, L. (1992). Doing gender: feminism, feminists and research methods in human geography. *Transactions of the Institute of British Geographers*, 17(4), 399-416.
- McEntee, M. (2006). *Professor Richard Le Heron – Teaching Excellence Award for Research Supervision*. DiGEST: Keeping in Touch, Autumn. Retrieved May 18, 2007, from <http://www.env.auckland.ac.nz/webday/site/env/shared/about/news-and-events/documants/digest-autumn-2006.pdf>
- McEwen, L. J. (2005). Postgraduate taught course developments in geography, earth sciences and environment in the UK: an initial assessment of drivers. *Planet*, 14, 6.
- McGregor, G. (2010). School of Environment, Director's Update. *DiGGES*t, Autumn. Retrieved July 17, 2010, from <http://www.env.auckland.ac.nz/webday/site/env/shared/about/news-and-events/documents/digest-autumn-2010.pdf>
- McWilliam, E., & Palmer, P. (1995). Teaching tech(no)bodies: Open learning and postgraduate pedagogy. *Australian Universities' Review*, 35(2), 32-34.
- Melrose, M. (2003). *The history of postgraduate education in New Zealand: Where have we been and where are we likely to go from here?* Paper presented at the Higher Education Research

- and Development Society of Australasia (HERDSA) conference, Learning for an Unknown Future, Christchurch, New Zealand, July 2003.
- Menter, I., Da Silveira Duarte, J., & Gorur, R. (2010). Global students for global education research? In P. Thomson, & M. Walker (Eds.), *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences* (pp. 368-376). New York: Routledge.
- Middleton, S. (2001). *Educating researchers: New Zealand education PhDs 1948-1998*. Palmerston North: NZARE.
- Milicich, M., Stringer, C., & Le Heron, R. (2003). Learning styles of Auckland geography students – some preliminary findings. *New Zealand Journal of Geography*, 115, 49-52.
- Minca, C. (2000). Venetian geography praxis. *Environment and Planning D: Society and Space* 18(3), 285-289.
- Ministerial Consultative Group. (1994). *The Todd Report: Funding growth in tertiary education and training*. Wellington: New Zealand Government.
- Ministry of Research, Science and Technology (MoRST). (2007). *An advanced skills action plan for research, science and technology: Discussion document, October*. Wellington: New Zealand Government. Retrieved May 12, 2010, from <http://www.morst.govt.nz/publications/a-z/a/asap-discussion/>
- Mitchell, P. (2008). New Zealand Geographical Society Conference, July 2008: A postgraduate perspective. *New Zealand Geographer*, 64(3), 239.
- Monk, J. (1994). Place matters: comparative international perspectives on feminist geography. *Professional Geographer*, 46(3), 277-288.
- Moran, W. (2000). Exceptionalism in the antipodes. *Progress in Human Geography*, 24(3), 429-438. Retrieved June 12, 2008, from <http://phg.sagepub.com>
- Morgan, K. (2004). The exaggerated death of geography: learning, proximity and territorial innovation systems. *Journal of Economic Geography*, 4(1), 3-21.
- Morgan, R. (2011). *University of Otago, Geography, Richard Morgan – Research*. Retrieved April 13, 2011, from http://www.geography.otago.ac.nz/people/academic/richard_morgan/richard_morgan_-_research
- Moss, P. (2009). Positioning a feminist supervisor in graduate supervision. *Journal of Geography in Higher Education*, 33(1), 67-80.
- Moss, P., Berg, L. D., & Desbiens, C. (2002). The political economy of publishing in geography. *ACME: An International E-Journal for Critical Geographies*, 1(1), 1-7.
- Mulgan, R. (1989). *Democracy and power in New Zealand : A study of New Zealand politics*. Auckland: Oxford University Press.

References

- Murray, W. (2009). Geo-News: Tertiary teaching national award winners. *New Zealand Geographer*, 65(3), 229-230.
- Murray, W. E., & Morrison, P. S. (2003). Calling all viewpoints. *Asia Pacific Viewpoint*, 44(1), 1-5.
- Muyinda, B. P., Lubega, J., & Lynch, K. (2008). The Mobile Research Supervision Initiative (MRSI) at Makerere University. *International Journal of Computing and ICT Research (IJIR), Special Issue*, 1(1), 48-59.
- Nagar, R. (2002). Footloose researchers, 'traveling' theories, and the politics of transnational feminist praxis. *Gender, Place and Culture*, 9(2), 179-186.
- Nagel, J. (1998). Social choice in a pluralitarian democracy: the politics of market liberalization in New Zealand. *British Journal of Political Science*, 28, 223-269.
- Nairn, K. (1998a). Geography fieldtrips: What a difference place makes. In P. C. Forer, & P. J. Perry (Eds.), *Proceedings of the 18th Conference of the New Zealand Geographical Society* 27-30 August, 1995 (pp. 190-193). Christchurch: University of Canterbury.
- Nairn, K. (1998b). The 'real' world of geography fieldtrips. In E. Bliss (Ed.), *Proceedings of Geographical Education Conference of the New Zealand Geographical Society* 6-9 July, 1997 (pp. 113-115). Hamilton: University of Waikato.
- Nairn, K. (1998c). *Disciplining identities: Gender, geography and the culture of fieldtrips*. Unpublished PhD thesis, Department of Geography, University of Waikato, Hamilton.
- Nairn, K. (1999). Embodied fieldwork. *Journal of Geography*, 98(6), 272-282.
- Nairn, K. (2003). What has the geography of sleeping arrangements got to do with the geography of teaching spaces? *Gender, Place and Culture: A Journal of Feminist Geography*, 10(1), 67-81.
- Nast, H. (1994). Opening remarks on "women in the field". *The Professional Geographer*, 46(1), 54-66.
- New Zealand Government. (1989). *Education Act*. Wellington: Government Printer.
- New Zealand Government. (2002). *Tertiary Education Strategy 2002/07*. Wellington: Ministry of Education.
- New Zealand Government. (2006). *Tertiary education strategy 2007-12. Incorporating statement of tertiary priorities 2008-10*. Wellington: Ministry of Education. Retrieved May 12, 2010, from <http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/TertiaryEducation/TertiaryEducationStrategy.pdf>
- New Zealand Government. (2009). *Tertiary education strategy 2010-15*. Wellington: Ministry of Education. Retrieved May 12, 2010, from <http://www.minedu.govt.nz/NZEducation/EducationPolicies/TertiaryEducation/PolicyAndStrategy/~media/MinEdu/Files/TheMinistry/TertiaryEducationStrategy2010/TES2010to2015.pdf>

- Newman, D. (2006). The progress in human geography lecture: The lines that continue to separate us: borders in our 'borderless' world. *Progress in Human Geography*, 30(2), 143-161.
- Newman, D., & Paasi, A. (1998). Fences and neighbours in the post-modern world: boundary narratives in political geography. *Progress in Human Geography*, 22(2), 186-207.
- Nowell, D. E. (1988). Postgraduate studies in North American and British geography: a comparative review. *Journal of Geography in Higher Education*, 12(1), 95-106.
- Oberle, A. P., Joseph, S. A., & May, D. W. (2010). Geospatial technologies as a vehicle for enhancing graduate education and promoting the value of geography. *Journal of Geography in Higher Education*, 34(4), 475-492.
- Olds, K. (2001). Practices for 'process geographies': a view from within and outside the periphery. *Environment and Planning D; Society and Space* 19(2), 127-136.
- Onwuegbuzie, A. J. (2001). Relationships between peer orientation and achievement in cooperative learning-based research methodology courses. *The Journal of Educational Research*, 94(3), 164-170.
- Owler, K. (2010). A 'problem' to be managed? Completing a PhD in the arts and humanities. *Arts & Humanities in Higher Education*, 9(3), 289-304.
- Paechter, C. (2003a). Learning masculinities and femininities: Power/knowledge and legitimate peripheral participation. *Women's Studies International Forum*, 26(6), 541-552.
- Paechter, C. (2003b). Masculinities and femininities as communities of practice. *Women's Studies International Forum*, 26(1), 69-77.
- Page, S. J., & Hill, R. A. (1986). Postgraduate training: An interdisciplinary survey. *Journal of Geography in Higher Education*, 10(1), 93-99.
- Paré, A. (2010). Making sense of supervision: Deciphering feedback. In P. Thomson, & M. Walker (Eds.), *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences* (pp. 107-115). New York: Routledge.
- Parker, R. (2009). A learning community approach to doctoral education in the social sciences. *Teaching in Higher Education*, 14(1), 43-54.
- Parton, H. (1979). *The University of Auckland*. Auckland: Auckland University Press, for the University Grants Committee.
- Pawson, E. (2006). Research assessment in New Zealand. *Progress in Human Geography*, 30(6), 757-759.
- Peach, C. (2002). Social geography: new religion and ethnoburbs – contrasts with cultural geography. *Progress in Human Geography*, 26(2), 252-260.
- Pearson, D. (2000). The ties that unwind: Civic and ethnic imaginings in New Zealand. *Nations and Nationalism*, 6(1), 91-110.

References

- Pearson, M., & Brew, A. (2002). Research training and supervision development. *Studies in Higher Education, 27*(2), 235-250.
- Pearson, M., Cowan, A., & Liston, A. (2009). PhD education in science: producing the scientific mindset in biomedical sciences. In D. Boud, & A. Lee (Eds.), *Changing practices in doctoral education* (pp. 100-112). London: Routledge.
- Pearson, M., & Kayrooz, C. (2004). Enabling critical reflection on research supervisory practice. *International Journal for Academic Development, 9*(1), 99-116.
- Peters, M. (2002a). Cultural postmodernity in Aotearoa/New Zealand: Biculturalism, multiculturalism and transculturalism. *ACCESS Critical Perspectives on Communication, Cultural and Policy Studies, 21*(1), 19-31.
- Peters, M. (2002b). Globalisation and the knowledge economy: Implications for education policy in Aotearoa/New Zealand. *ACCESS Critical Perspectives on Communication, Cultural and Policy Studies, 21*(1), 33-51.
- Peters, M. (2002c). Neoliberalism, postmodernity and the reform of education in Aotearoa/New Zealand. *ACCESS Critical Perspectives on Communication, Cultural and Policy Studies, 21*(1), 3-17.
- Peters, M., & Roberts, P. (1998). Agendas for change: Universities in the 21st century. *New Zealand Annual Review of Education, 7*, 5-28.
- Phillips, E., & Pugh, D. (1994). *How to get a PhD* (2nd ed.). Milton Keynes: Open University Press.
- Phillips, E. M., & Pugh, D. (2000). *How to get a PhD: a handbook for students and their supervisors* (3rd ed.). Buckingham: Open University Press.
- Pink, S. (2001). *Doing visual ethnography: Images, media and representation in research*. Thousand Oaks, CA: Sage.
- Polin, L. (2008). Graduate professional education from a community of practice perspective: The role of social and technical networking. In C. Kimble, P. Hildreth, & I. Bourdon (Eds.), *Communities of practice: Creating learning environments for educators, Vol. 2* (pp. 267-285). Charlotte, NC: Information Age Publishing.
- Pratt, G. (2000). Research performances. *Environment and Planning D: Society and Space 18*, 639-651.
- Pryor, J. (2010). Constructing research questions: focus, methodology and theorization. In P. Thomson, & M. Walker (Eds.), *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences* (pp. 161-171). New York: Routledge.
- Rehn, A. (2009). Innovation is not best practice. Retrieved October 17, 2010, from <http://tm.mbs.ac.uk/comment/innovation-is-not-best-practice/?article2pdf=1>
- Reid, L. A., & McCormick, A. (2010). Knowledge transfer at the research-policy interface: The geography postgraduates' experiences of collaborative studentships. *Journal of Geography in Higher Education, 34*(4), 529-539.

- Rizvi, F. (2010). International students and doctoral studies in transnational spaces. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 158- 170). New York: Routledge.
- Robinson, W. I. (2003). *Transnational conflicts: Central America, social change and globalization*. London: Verso.
- Roche, M. M., & Mansvelt, J. (1997). Deliberations: Year 13 achievement and university teaching. *New Zealand Journal of Geography*, 103(1), 18-21.
- Rochford, K. (2003). Hundred per cent successful throughput rates of masters and doctoral research students. *South African Journal of Higher Education*, 17(3), 217-225.
- Rose, G. (1997). Situating knowledges: positionality, reflexivities and other tactics. *Progress in Human Geography*, 21(3), 305-320.
- Roudometof, V. (2005). Transnationalism, cosmopolitanism, and glocalization. *Current Sociology*, 53(1), 113-135.
- Royal Geographical Society. (1987). Guide to postgraduate departments. *Journal of Geography in Higher Education*, 11(2), 111.
- Sampson, K. A., & Comer, K. (2010). When the government tail wags the disciplinary dog: some consequences of national funding policy on doctoral research in New Zealand. *Higher Education Research & Development*, 29(3), 275-289.
- Sauer, C. (1956). The education of a geographer. *Annals of the Association of American Geographers*, 46(3), 287-299.
- Scheyvens, R., Wild, K., & Overton, J. (2003). International students pursuing postgraduate study in geography: impediments to their learning experiences. *Journal of Geography in Higher Education*, 27(3), 309-323.
- Schoenberger, E. (2001). Interdisciplinarity and social power. *Progress in Human Geography*, 25(3), 365-382.
- Scott, I., Fuller, I., & Gaskin, S. (2006). Life without fieldwork: some lecturers' perceptions of geography and environment science fieldwork. *Journal of Geography in Higher Education*, 30(1), 161-171.
- Seddon, T. (2010). Doctoral education in global times: 'Scholarly quality' as practical ethics in research. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 219-230). New York: Routledge.
- Shannon, A. G. (1995). Research degree supervision: 'More mentor than master'. *Australian Universities' Review*, 38(2), 12-15.

References

- Shore, C. (2007). 'After neoliberalism'? – The reform of New Zealand's university system. *Working papers on university reform*, 6, 1-19. Published by "Transformation of universities and organizations" at the Department of Educational Anthropology at the Danish University of Education, Denmark.
- Short, J. R., Boniche, A., Kim, Y., & Li Li, P. (2001). Cultural globalization, global English and geography journals. *Professional Geographer*, 53(1), 1-11.
- Sidaway, J.D., & Mc Gregor, A. (2008). Beyond the shadows: The promise of Aotearoa/New Zealand geography. *New Zealand Geographer*, 64(1), 1-4.
- Silk, J. (1987). Postgraduate training courses in Britain: an introduction. *Journal of Geography in Higher Education*, 11(1), 59-63.
- Silk, J. (1988). Doctoral training programmes in Britain: model for others or yet another vehicle for cuts! *Journal of Geography in Higher Education*, 12(2), 150-156.
- Simonsen, K. (2002). Editorial: Global-local ambivalence. *Transactions of the Institute of British Geographers*, 27(4), 391-394.
- Sinclair, K. (1983). *A history of the University of Auckland*. Auckland: Auckland University Press and Oxford University Press.
- Sinclair, M. (2004). *The pedagogy of 'good' PhD supervision: A national cross-disciplinary investigation of PhD supervision*. Australia: Australian Government, Department of Education, Science and Technology.
- Smith, F. (1988). *Joining the literacy club: further essays into education*. Portsmouth, NH: Heinemann Publishing.
- Smith, S. J. (1993). Bounding the borders: Claiming space and making space in rural Scotland. *Transactions of the Institute of British Geographers*, 18(3), 291-308.
- Smith, W. (2006). Geography at the University of Auckland. *New Zealand Geographer*, 62(3), 222.
- Snyder, W. (2005). Roundtables: A way for students to develop their internal sources of motivation to learn and act. *International Research in Geographical and Environmental Education*, 14(2), 150-154.
- Solem, M., Cheung, I., & Schlemper, B. (2008). Skills in professional geography: An assessment of workforce needs and expectations. *The Professional Geographer*, 60(3), 1-18.
- Solem, M., & Foote, K. (2009). Enhancing departments and graduate education in geography: A disciplinary project in professional development. *International Journal of Researcher Development*, 1(1), 11-28.
- Solem, M., Lee, J., & Schlemper, B. (2009). Departmental climate and student experiences in geography graduate programs. *Research in Higher Education*, 50(3), 268-292.
- Spronken-Smith, R. A., Jennings, J., Robertson, J., Mein Smith, P., Vincent, G., & Wake, G. (2000). *The research-teaching link at Canterbury*. A report prepared for the Teaching and

- Learning Committee. Christchurch: University of Canterbury. Retrieved November 7, 2009, from <http://www.adg.canterbury.ac.nz/documents/nexusrpt1.pdf>
- Stirling, S. (2003). Fieldtrips: A glimpse into their place in the New Zealand geography education. In J. Gao, R. Le Heron, & J. Logie (Eds.), *Proceedings of the 22nd New Zealand Geographical Conference* (pp. 43-47). Auckland: University of Auckland.
- Stirling, S. (2006). *Geography fieldtrips in New Zealand at secondary school and undergraduate level in the second half of the 20th century and beyond*. Unpublished PhD Thesis, Massey University, New Zealand.
- Stirling, S. (2008). The place of fieldtrips in New Zealand university geography. *New Zealand Geographer*, 64(1), 68-71.
- Stokes, E. (1987). Māori geography or geography of Māori's. *New Zealand Geographer* 43(3), 118-123.
- Stotesbury, H. (2003). Evaluation in research article abstracts in the narrative and hard sciences. *Journal of English for Academic Purposes*, 2(4), 327-341.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Stringer, E. T. (1997). *Action research: A handbook for practitioners*. Thousand Oaks, CA: Sage.
- Tadaki, M., Blue, B., Gregory, C., McFarlane, K., Reid, H., & van Limburg-Meijer, P. (forthcoming). Rethinking water: generative practice as innovation in freshwater research. *Kotuitui: New Zealand Journal of Social Sciences Online*.
- Tammen, I. (n.d.). *The explorer: A metaphor for supervision*. Development program for Research Higher Degree Supervision, Institute for Teaching and Learning, The University of Sydney. Retrieved June 12, 2010, from <http://www.itl.usyd.edu.au/supervision/casestudies/files/tammen.pdf>
- Tarling, N. (1999). *Auckland the modern university*. Auckland: The University of Auckland Publishing Press.
- Tertiary Education Advisory Commission (2001a). *Shaping the strategy*. Wellington: TEAC, July.
- Tertiary Education Advisory Commission (2001b). *Shaping the system*. Wellington: TEAC, February.
- Tertiary Education Commission (2004). *Performance-Based Research Fund evaluating research excellence: the 2003 assessment*. Wellington: TEC, April.
- The University of Auckland. (2011). *Geography postgraduate handbook*. Retrieved May 3, 2011, from http://www.env.auckland.ac.nz/pdfs/geog_pg10.pdf
- The University of Auckland Board of Graduate Studies. (2010). *Senate Guidelines on Thesis Supervision*. Retrieved August 21, 2011, from <http://www.auckland.ac.nz/webdav/site/central/shared/for/current-students/postgraduate-students/documents/policies-guidelines-forms/senate-guidelines-thesis-supervision.pdf>

References

- The University of Auckland School of Environment. (2011). *Research topics by staff*. Retrieved August 21, 2011, from <http://www.env.auckland.ac.nz/ua/home/about/our-research-topics-by-staff>
- Thomson, P., & Kamler, B. (2010). It's been said before and we'll say it again – research is writing. In P. Thomson, & M. Walker (Eds.), *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences* (pp. 149-160). New York: Routledge.
- Thomson, P., & Walker, M (Eds.). (2010). *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences*. New York: Routledge.
- Thrift, N. (1996). *Spatial formations*. London: Sage.
- Thrift, N. (1997). The still point: resistance, expressive embodiment and dance. In S. Pile, & M. Keith (Eds.), *Geographies of resistance* (pp. 124-151). London: Routledge.
- Thrift, N. (1999). Steps to an ecology of place. In D. Massey, J. Allen, & P. Sarre (Eds.), *Human geography today*. Cambridge: Polity.
- Thrift, N. (2002). The future of geography. *Geoforum*, 33(3), 291-298.
- Thrift, N. (2007). *Non-representational theory: Space, politics, affect*. London: Routledge.
- Thrift, N., & Dewsbury, J-D. (2000). Dead geographies – and how to make them live. *Environment and Planning D: Society and Space* 18(4), 411-432.
- UniNews. (2011). Researchers join WUN's global challenge. *University of Auckland news for staff*, 41(17), 4.
- Unwin, D. (1987). British geography: Development and challenge. The future of postgraduate education. *Journal of Geography in Higher Education*, 11(2), 173-174.
- Valentine, G. (1997). Tell me about...using interviews as a research methodology. In R. Flowerdew, & D. Martin (Eds.), *Methods in human geography: a guide for students doing a research project* (pp. 110-124). London: Longman.
- Varnham, S. (2001). 'Straight talking, straight teaching: are New Zealand tertiary institutes potentially liable to their students under consumer protection legislation?' *Education and the Law*, 13(4), 303-317.
- Verhoeff, R. (1998). Postgraduate education for human geography in The Netherlands: Some comparisons with the UK. *Journal of Geography in Higher Education*, 22(2), 249-256.
- Vilkinas, T. (2002). The PhD process: the supervisor as manager. *Education and Training*, 44(2), 129-137.
- Walford, R. (1996). 'What is geography?' An analysis of definitions provided by prospective teachers of the subject. *International Research in Geographical and Environmental Education*, 5(1), 69-76.

- Walker, M. (2010). Doctoral education as 'capability' formation. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 29-37). New York: Routledge.
- Walker, M., & Thomson, P. (2010a). Introduction: Why the doctoral companions? In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 1-8). New York: Routledge.
- Walker, M., & Thomson, P. (Eds.) (2010b). *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences*. New York: Routledge.
- Walker, M., & Thomson, P. (2010c). Using this book. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. xv-xvii). New York: Routledge.
- Ward, M-H., & West, S. (2008). Blogging PhD candidature: Revealing the pedagogy. *International Journal of Emerging Technologies and Society*, 6(1), 60-71.
- Watts, J. H. (2010). Supervising part-time doctoral students: Issues and challenges. In M. Walker, & P. Thomson (Eds.), *The Routledge doctoral supervisor's companion: Supporting effective research in education and the social sciences* (pp. 123-130). New York: Routledge.
- Wellington, J. (2010). Weaving the threads of doctoral research journeys. In P. Thomson, & M. Walker (Eds.), *The Routledge doctoral student's companion: Getting to grips with research in education and the social sciences* (pp. 128-142). New York: Routledge.
- Wenger, E. (1998). *Communities of practice*. Cambridge: Cambridge University Press.
- Wenger, E. (2006). *Communities of practice: a brief introduction*, (para. 3). Retrieved March 28, 2011, from http://www.ewenger.com/theory/communities_of_practice_intro.htm
- Wisker, G., & Brown, S. (Eds.). (2001). *Enabling student learning systems and strategies*. Birmingham: Kogan Page.
- Wisker, G., Robinson, G., & Shacham, M. (2007). Postgraduate research success: Communities of practice involving cohorts, guardian supervisors and online communities. *Innovations in Education and Teaching International*, 44(3), 301-320.
- Wisker, G., Robinson, G., Trafford, V., Warnes, M., & Creighton, E. (2003a). From supervisory dialogues to successful PhDs: strategies supporting and enabling the learning conversations of staff and students at postgraduate level. *Teaching in Higher Education*, 8(3), 383-397.
- Wisker, G., Robinson, G., Trafford, V., Warnes, M., & Creighton, E. (2003b). Recognising and overcoming dissonance in postgraduate student research. *Studies in Higher Education*, 28(1), 91-105.
- Withers, C. W. J., & Mayhew, R. J. (2002). Re-thinking disciplinary history: geography in British universities c. 1580-1887. *Transactions of the Institute of British Geographers*, 27(1), 11-29.

References

- Yanni, C. (2005). History and sociology of science: Interrogating spaces of knowledge. *The Journal of the Society of Architectural Historians*, 64(4), 423-425.
- Yeatman, A. (1995). Making research relationships accountable: Graduate student logs. *Australian Universities' Review*, 38(2), 9-11.
- Yeung, H. W. C. (2001). Readdressing the geographical bias in social science knowledge. *Environment and Planning A*, 33, 1-9.
- Yeung, H. W. C. (2003). Practicing new economic geographies: A methodological examination. *Annals of the Association of American Geographers*, 93(2), 442-462.
- Young, C. (1988). The doctoral programme at the University of Edinburgh: an historical geographer's view. *Journal of Geography in Higher Education*, 12(2), 167-170.
- Zuber-Skerrit, O., & Ryan, Y. (Eds.). (1994). *Quality in postgraduate education*. London: Kogan Page.