

## AKO AOTEAROA REGIONAL HUB PROJECTS FUNDED SCHEME: FINAL REPORT

Developing research supervision skills: understanding and enhancing supervisor professional development practice in the Aotearoa New Zealand context.

Dr Jean Rath Senior Lecturer & Research Coordinator School of Educational Studies and Human Development, University of Canterbury, Private Bag 4800, Christchurch 8140.

jean.rath@canterbury.ac.nz jean.rath@some.oxon.org

December 2008

## Acknowledgements

I would like to acknowledge Ako Aotearoa for funding the research. I would like to thank the tertiary institutions that took part in the research, particularly the five organisations that agreed to act as case studies. I am indebted to those individuals who generously gave their time to explain their practices, gather documentation and to share important aspects of their work during interviews. Finally, thank you to Carol Mutch who agreed to act as project mentor/provocateur and to the Educational Studies and Human Development administrative team who supported the research in a multitude of ways.

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# **Executive Summary**

### Introduction

Supervising students undertaking research projects, dissertations or theses at all levels from pre-degree to doctorates is a significant part of the work of tertiary educators, and the relationship between supervisor and student has been shown to be a critical factor in the retention of students. Most literature and research initiatives relating to supervision are aimed at postgraduate level students and supervisors. Moreover there is only an emerging literature to address the specific requirements of supervision in the Aotearoa New Zealand context. Therefore, this exploratory project sought to generate knowledge about current practices across a range of type of organisations and qualification levels within the Aotearoa New Zealand context. The overarching objectives were to:

- Identify existing resources and professional development activities that are available at universities, polytechnics, wānanga and relevant private training establishments.
- Provide baseline data and networking opportunities for future projects.
- Generate tentative practical recommendations to assist tertiary institutions and their staff in developing effective research supervision training.

#### Methods and Results

A national online survey and qualitative case studies of five institutions (three polytechnics, a university and a PTE) were carried out. Each institution determined the nature of information obtained and the key informants interviewed during site visits. Case study organisations were guided to identify staff offering leadership in professional development and supervisors identified by the institution as adopting good practice.

Responses were received from seven universities, six polytechnics, one wananga and four PTEs (response rate 45%).

- Only two institutions provided institution-wide supervisor professional development at sub-degree level.
- All the universities indicated that supervisor support or training is available for work at doctoral level.
- All universities provided an orientation for novice postgraduate supervisors. Topics included: codes of practice, information about dealing with problems, ethics, managing candidature, working with international students and orientation for experienced supervisors new to the institution.
- The same material was covered for supervisors of Masters level research, however, the response count was the same or lower for each subject.
- Several universities and polytechnics provided professional development for postgraduate research supervisors at an institutional level and devolved

support for supervisors at other levels was faculties or schools (this resulted in some organisations have little centralised knowledge about the overall provision of professional development).

- Several polytechnics and PTEs did not regard themselves as providing any professional development for supervisors of student research.
- Of those organisations providing professional development for supervisors, all provided printed materials (most frequently a Handbook for both students and supervisors), 90% made use of training sessions and a mentoring programme, 40% operated a peer buddying scheme or peer support group, and half provided web-based resources.

The case studies highlighted the diverse institutional policies and practices in relation to supervisors' professional development. Only the university had a formalised training programme for supervisors. Other institutions relied on wider, system-based, initiatives that focussed on staff research and/or teaching capabilities. Few supervisors had undertaken formal supervisor training, however, they had access to a range of skills, experiences, resources and non-supervisory formal professional development opportunities. An inductive analysis of the interview data identified five main themes in supervisors' narratives: memories of supervision, supervision as teaching, transferring skills, personal attributes and learning from colleagues.

#### Implications for supervisor professional development

The results highlight the range of institutional approaches to supervisor professional development and the major themes of the complex narratives that supervisors employ to make sense of their experience. One outcome has been to raise awareness of supervisor professional development across a range of tertiary organisations. It is hoped that this will enhance future networking between staff developers who prepare staff to supervise student research at a variety of qualification levels. Based on the areas highlighted as important within the report, there are several implications for the development of practice:

- Supervision should be recognised as a space for crafting (and re-crafting) scholarly identities for both students and supervisors. Professional development should encourage challenging reflective practices to acknowledge and build upon the knowledge and life experiences of supervisors with regard to their prior professional *and* personal experiences.
- Many supervisors develop their skills by evolving and expanding upon other teaching duties. Institutions can enhance this process by acknowledging preexisting skills and by developing tertiary teaching qualifications that include supervision as a specialist pedagogy.
- Professional development models should seek to facilitate a process that honours the supervisory relationship as requiring not only competent individual supervisors, but also a supportive community of academics, other staff and students.

- Devolution of professional development responsibilities to Faculty or School level allows for the development of discipline specific supervisory pedagogies. Such developments must be coupled with effective communications between all units concerned with teaching and research development.
- Staff need to be well-prepared to supervise small research projects, this strengthens the research-teaching nexus at pre-degree and undergraduate level, provides a stimulus for community and industry engagement, and impetus to postgraduate programmes.
- Web-based resources are rapidly becoming a key vehicle to facilitate professional learning networks and encourage community-building. Their emergence is important in developing inclusive ways to work with students and/or supervisors at a distance across global academic and practitioner communities.

The research project was a scoping exercise. Future more in depth research is required that adopts longitudinal, multi-dimensional, multi-method approaches to help develop credible models of how professional development affects the structure, acquisition, application and retention of supervisor knowledge, and how this influences students' experiences and outcomes. The role of supervisors remains crucial in ensuring that students complete their education in a timely manner and gain enriched abilities with regard to research skills, scholarly endeavour and academic identities.

#### Introduction

Supervising students undertaking research projects, dissertations or theses at all levels from pre-degree to doctorates is a significant part of the work of tertiary educators. Employability in the 21<sup>st</sup> Century is increasingly linked to skills and attributes that are acquired through research focused activity (UNESCO, 2005). Hence the role of supervisors is crucial in ensuring that students complete their education with the appropriate skills to enhance their future employability.

The relationship between supervisor and student has been shown to be a critical factor in the retention of students (e.g. Bair and Haworth's (2004) metaanalysis of numerous supervision studies). Most literature relating to supervision is aimed at postgraduate level students. A wide range of guidebooks is available for students beginning postgraduate research, a growing number of which are in second or subsequent revised editions (e.g. Bolker, 1998; Brause, 2000; Ogden, 2007; Biggam, 2008; Wisker, 2008; Thomas & Brubaker, 2008). However, the dissertation advice book genre has been criticised for its over simplification and paternalistic, instructional style with possible negative influence on students and scholarly endeavour (Kamler & Thomson, 2008). Whilst several guidebooks are marketed as "key reading" for both students and supervisors, in recent years the range of practical manuals written specifically for novice supervisors has also expanded (e.g. Wisker, 2005; Eley & Jennings, 2005; Beasley & Taylor, 2005; Delamont, Atkinson & Parry, 1997). Recently ACER Press has published two edited collections focused on Australian and New Zealand postgraduate students and supervisors (Denholm & Evans, 2006 & 2007), and the Australian focused biennial Quality in Postgraduate Research (QPR) conferences have been held in Adelaide since 1994; they are now well established as a meeting place for those concerned with postgraduate education in both Australia and New Zealand<sup>1</sup>.

In addition to advice and guidance books and websites there is a growing research literature that explores the supervisor-student relationship, effective practices and the perceptions of postgraduate supervisors (in recent years there has been a noteworthy increase in the number of supervision focused articles in higher education journals such as Higher Education, Studies in Higher Education, Teaching in Higher Education). In recent years there have been considerable efforts internationally to understand more about supervision at postgraduate, especially doctoral, level (e.g. the PhD Completion Project in the United States and Canada, http://www.phdcompletion.org, The Carnegie Initiative on the Doctorate, which explored the state of doctoral education in the United States (see Walker, Golde, Jones, Bueschel & Hutchings, 2008) and the ongoing Australian Learning and Teaching Council funded project "Building research supervision and training across Australian universities"). However, as Todd, Smith & Bannister (2006) note the research literature relating to

<sup>&</sup>lt;sup>1</sup> The QPR website (http://qpr.edu.au) provides an overview of past conferences and a comprehensive database of past papers.

experiences, perceptions and practices at undergraduate level is less well developed, and there remains relatively little advice available for supervisors of research below doctoral level. Moreover there is little research upon which to base best practice at these levels and there is only an emerging literature to address the specific requirements of supervision in the Aotearoa New Zealand context. Most notably, and urgently, there is a growing body of work to address the nature of supervisory processes for Māori doctoral candidates (Fitzgerald, 2005; Kidman, 2007; McKinley, Grant, Middleton, Irwin and Williams, 2007).

Therefore, this exploratory project sought to generate knowledge about current practices across a range of type of organisations and qualification levels within the Aotearoa New Zealand context in order to contribute toward identifying critical factors for future grounding of action-oriented suggestions and make constructive links with existing provision and relevant literature. The overarching objectives were to:

- Identify existing resources and professional development activities that are available at universities, polytechnics, wananga and relevant private training establishments.
- Provide baseline data and networking opportunities for future projects.
- Generate tentative practical recommendations to assist tertiary institutions and their staff in developing effective research supervision training.

## Methodology

#### Guiding research questions

- What existing resources and professional development activities are available at universities, polytechnics, wananga and relevant PTEs?
- How do supervisors draw on resources and professional development activities to develop pedagogies of research supervision?

#### Data gathering

In order to research the different aspects of supervisor professional development the project used both a survey and qualitative case study approach<sup>2</sup>. Tertiary education organisations were invited by email to take part in an online survey to gauge existing practices and provision. Email invitations to complete the survey were sent to all New Zealand polytechnics, universities and wānanga. A range of PTEs, identified as including qualifications at degree level, were also invited to take part (invitations were personalised whenever possible). Appendix 1 provides an illustrative copy of the survey. Following the online

<sup>&</sup>lt;sup>2</sup> The University of Canterbury College of Education Ethics Committee approved all materials and processes relating to the survey and case study design. Case study approval was obtained from both institutions and individuals.

survey, five institutions (three polytechnics, a university and a PTE) volunteered to be sites for case studies<sup>3</sup>. Each institution determined the nature of information obtained and the key informants interviewed during site visits. Case study organisations were guided to identify staff offering leadership in professional development and supervisors identified by the institution as adopting good practice. The exact nature and length of individual semi-structured interviews varied, these lasted an average of 64 minutes, varying from 36 to 109 minutes. This approach is influenced by the work of Riessman (1993), who emphasises the need to develop interviewing techniques that allow informants to focus on facts, opinions and stories that are of abiding interest to the participant. The intention was to obtain data that reflects the priorities and narratives within each setting.

#### **Survey Results**

The online survey of existing practices and provision at universities, polytechnics, wānanga and relevant Private Training Establishments commenced in July 2008 with an invitation to take part issued to 40 institutions. A 25 to 30% response rate from an e-mail initiated survey is typical; however, this can be improved when follow-up takes place (Cook, Heath & Thompson, 2000). Therefore, a supplementary invitation/reminder was issued in September 2008, which resulted in a final response rate of 45%. Responses were received from seven universities, six polytechnics, one wānanga and four PTEs.

Summary data shows that only two institutions (a wānanga and a polytechnic) reported providing institution-wide supervisor professional development at sub-degree level.<sup>4</sup> Topics covered in both cases were ethics, academic writing and working with Māori students, whilst one also offered development in relation to codes of practice and information about resources for students. Each organisation indicated in additional comments that extending the range of activities recognised as research was an important institutional goal. The wānanga noted that an important future challenge in developing research supervision skills was "Redefining the word 'research' within a Māori framework and acknowledging a wider variety of what constitutes research"; whilst the polytechnic notes that "the first piece of research that people do [at pre-degree level] is quite key to how they do research later".

All of the universities indicated that supervisor support or training is available for work at doctoral level, and all save one indicated development also

<sup>&</sup>lt;sup>3</sup> No wānanga volunteered to take part, which may be due to research processes already underway in partnership with The National Programme for Māori and Indigenous Post-graduate Advancement (www.mai.ac.nz). The MAI network extends throughout the country and provides advice, support and information to Māori and Indigenous PhD candidates.

<sup>&</sup>lt;sup>4</sup> Some respondents noted that such sub-degree and degree supervisor professional development was devolved to Schools or Faculties, so such training may be under reported in this survey.

occurred for Masters level supervisors (see below for one possible explanation). At doctoral level all reported provision of an orientation for novice supervisors and information about dealing with problems. Other prevalent topics were: codes of practice, ethics, managing candidature, working with international students and orientation for experienced supervisors new to the institution. The topics covered for supervisors of Masters research were the same as for doctoral supervisors, however, the response count was the same or lower for each subject. The topics covered at each level are summarised in Table 1.

Topics	Doctoral Level Response count (n=7)	Masters Level Response count (n=6)
Codes of practice	6	2
Ethics	6	5
Managing candidature	5	3
Examining project reports or theses	4	3
Academic writing	4	4
Dealing with problems	7	6
International students	5	3
Māori students	4	4
Pasifika students	3	3
Orientation for novice supervisors	7	6
Orientation for experienced supervisors new to the institution	5	4
Orientation for experienced supervisors new to New Zealand*	3	3
Information about funding support for students	4	4
Information about resources available for students, e.g. ICT, library, equipment.	3	3
Discipline area specific training	2	2
Other (please specify)	0	

#### Table 1: Topics included in support or training provided for doctoral and Masters supervisors in universities

Notes to Table 1:

\* One institution noted that all supervisors including those new to New Zealand and/or the institution are required to attend orientation sessions for postgraduate supervisors, but these sessions do not focus on how New Zealand practices differs from that in other countries. Interestingly, during case study interviews several respondents (from polytechnics and the University) noted that new migrants often created de facto new arrival orientations during more generalised orientations, as they were often keen to clarify differences between New Zealand and the supervision systems in their country of origin.

Several universities commented that although there was professional development provision for doctoral supervisors at an institutional level, support for supervisors at other levels was devolved to faculties or schools. Indeed, it is possible that the university reporting no development for Masters level supervisors may have been indicating an absence of institution-wide provision rather than an absence of provision per se. Polytechnics similarly reported that institution-wide support was provided for postgraduate level gualifications, whilst professional development at other levels was devolved. In both sectors, questionnaire comments, case study data and informal conversations confirmed that faculty/discipline specific training was often either devolved or provided by a central unit on request. One respondent noted that this resulted in provision below doctoral level that was "somewhat sporadic in nature". Several universities and polytechnics indicated that, as large organisations, little was known across the institution of the overall provision of professional development; this was due to both devolution of responsibility for some professional development activities to School or Faculty level and the differing responsibilities of centralised units<sup>5</sup>. Organisations reported a range of centralised units responsible for supervisor development, including Research Offices, Teaching Development Units, Staff Development Units and Postgraduate Offices. Often professional development was a collaborative effort across two or more central units. With one exception the Research Office was one of the units involved within the university sector. whereas PTEs and polytechnics were likely to include programme managers and/or teaching development units. Structural and cultural differences across organisations meant that the wananga was the only institution to report the involvement of a Human Resources department in supervisor development. Half of all respondents pointed to experienced supervisors as a key resource and one third made use of external experts.

Several polytechnics and PTEs answered that they did not regard themselves as providing any professional development for supervisors of student research. Of those organisations providing professional development for supervisors, 90% indicated that they provided training sessions and an identical percentage operated a mentoring programme (40% operated a peer buddying scheme or peer support group). All provided printed materials and half provided web-based resources.

The main sources of materials are indicated in Table 2. A number of respondents noted that acquiring training resources could be time consuming. Several universities mentioned the fIRST website ("for Improving Research Supervision and Training"; www.first.edu.au). fIRST provides access to a range of resources designed to help supervisors improve the quality of postgraduate research education. The site was created by a consortium of Australian and New Zealand universities and focuses on supervision in the university sector. Resources are available to consortium members, and include on-line activities,

<sup>&</sup>lt;sup>5</sup> For this reason the data gathered in relation to provision at Hons/Postgrad Cert/Dip and Bachelors level has been excluded due to concerns of unreliability.

materials and instructions for providing face-to-face staff development workshops, tools, case studies, a bibliography and links to other relevant web sites. At the time of writing the site is under review as part of the Australian Learning and Teaching Council funded project "Building research supervision and training across Australian universities", hosted by the University of Technology, Sydney.<sup>6</sup>

Source of training materials	Response Percent
Workshops and conferences	61%
Reference/information sources	39%
Journals and reports	44%
In-house training materials	33%
Other (please specify) fIRST Website	22%

In voicing issues for future focus respondents emphasised that the processes related to supervisor professional development are complex with institutional, disciplinary and international factors interacting to produce a highly contested field of practice. Several areas were highlighted for future consideration including: Catering for diversity in postgraduate student population; the nature of research at undergraduate level; dealing with a more diverse student population especially international students; acknowledging discipline-related differences in postgraduate research and supervision; encouraging more experienced supervisors to continue to develop their supervision capabilities; working with research students and/or supervisors at a distance across global academic and practitioner communities.

## **Case Study Results**

Case study data is presented for each institution, including a brief contextual background, an explanation of the case study and a descriptive narrative (the headings within each narrative are direct quotes from participants). The five institutional case studies are followed by a pan case study analysis of supervisors' individual narratives exploring how they draw on resources and professional development activities to develop pedagogies of research supervision.

<sup>&</sup>lt;sup>6</sup> It is hoped that the revised fIRST website will contribute toward the development of timely and relevant resources. However, the project focuses on supervision in relation to higher degree research only and access to fIRST resources is limited by consortium membership with a subscription fee payable. Not all New Zealand universities subscribe, one polytechnic subscribes, no wānangas or PTEs are members of the consortium.

## Case Study 1: Polytechnic A

#### Background

Polytechnic A has over 13,000 individual students enrolled across multiple campuses. The polytechnic serves a predominantly rural region with an economy dominated by agriculture and related land-based industries. Over 75% of people in the region identify as European, with Māori, Pasifika and Asian ethnicities forming a lower proportion of the population than the national average. The region's evolving demographics show an increasing outflow of younger people. This results in a strong local economy with low unemployment, but with severe skills shortages (over a third of the working-age population has no formal qualification compared with 23% nationally) and an ageing population. The institute prides itself on being a community-based polytechnic that is responsive to the particular needs of the local area. It has close consultative relationships with local businesses, community and iwi. The institute endeavours to be responsive to regional industry skill needs by both seeking to attract students to the region for training and by retaining skills in the region whenever possible. In recent years building redevelopment and the wide application of mixed mode methods of programme delivery have been key strategies aimed at school leavers, the existing workforce and the immigrant population.

#### The case study

The case study focused on the practices within one postgraduate course, a Postgraduate Diploma in Business. This programme is designed to meet the needs of graduates who wish to start their own business and, to a lesser extent, others who want to learn about business enterprise. The full time curriculum (part time is an option) includes an initial, six month taught component focussing on enterprise management, entrepreneurship, enterprise operations, information communications technology, marketing, human resource management and financing enterprise. A research methodology course introduces a range of business-focused research techniques and research design. It also provides a framework for planning a study proposal, which is further developed in the final course component, a 20,000 word research dissertation, which is designed to apply research techniques to a practical business situation (often the student's own small enterprise), and is submitted twelve months after the end of the taught component. Historically, the qualification has a completion rate of 50 to 60%, which is in line with the national sector average for Level 8 qualifications (Ministry of Education (2007) figures show the Level 8 five year qualification completion rate for students starting qualifications in 2002 was 63%). Interviews were carried out with two dissertation supervisors (including a recent past Programme Manager) and with two ex-students. Course documentation was studied and data was also gathered from additional publicly available sources including the Polytechnic's website, publicity material, annual report and the relevant Regional Statement prepared for the Tertiary Education Commission.

# "We've got a lot more students, but it's changed the whole dynamics of the teaching and the supervision"

Students have access to a formally appointed primary supervisor, and access to informal supervision from other specialist staff as required, e.g. for consultation in particular subjects or aspects of the dissertation such as specialist research methodology or bibliographical requirements. Dissertation students are able to seek advice from not only their primary supervisor but also other lecturers from the taught courses and from a student learning support adviser. When the course began, it ran once a year with ten to twelve students; supervisor-student pairings were arranged through a time-intensive process of individual student interviews with the programme manager to assess needs (and personal preferences) before a suitable supervisor was allocated. The programme manager himself would take the "harder students", i.e. those with personal and/or academic issues that may be more demanding of a supervisor's time or skills. At the course's inception supervisors were allocated at the end of the six-month taught course component just before the twelve-month dissertation period began. However, the Programme Manager was unhappy with the quality of research proposals, so shifted the pairing process to six weeks after the start of the programme. This resulted in improved proposals and faster acceptance of students into the dissertation component of the course.

The supervisors felt that a clear concept of the nature of the supervisory relationship was embodied in the Student Learning Contract (see Appendix 2). Supervisors and students repeatedly mentioned that the students need to be respected as adult learners who could take responsibility for their own learning and that this was a key skill for all supervisors. The learning contract reflects this philosophy and the overall approach of structured responsibility as outlined in Polytechnic A's Research Dissertation Handbook, which acts as a guide for staff and students. The Handbook sets out general principles and procedures that are common to all subject areas; any additional specific provisions for a particular gualification are detailed in School Guidelines. The Handbook includes: an introduction to the nature and scope of higher level gualifications in New Zealand; general supervision principles in relation to institutional codes of practice; ethical requirements; enrolment and fees; procedures during candidacy, including an outline of the typical progress of a research process leading to a successful dissertation; the roles and responsibilities of students and supervisors.

During the last year the nature of the course has changed, with an increase to two iterations per year each with fifteen to eighteen participants. With enlarged numbers the individualised process of supervisor allocation has been discontinued. To date, no deleterious effects have been reported, and both student and supervisor retain the right to request reallocation if a pairing does not work. Another significant change has been the nature of the student cohort,

which now reflects the institute's recent efforts to internationalise with overseas students dominating (over 90% are Indian and Chinese). The full consequences of internationalisation have not yet become clear, although both supervisors indicated that significant adjustments are required.

A large number of students now return to their countries of origin to research and write their dissertation. Whilst this often allows them to return to their businesses to conduct enterprise-focused research, there are considerable implications for the practice of supervision and for ongoing student peer support. For example, in previous years the programme manager had facilitated an interactive student forum for dissertation students to meet regularly to discuss their businesses and the progress of their research; with so many students offsite during the dissertation phase the forum in now in abeyance. Although the programme is considering extensive use of Blackboard virtual learning environment software and of Skype communications software for distance supervision, in practice most work occurs via email, which can be a less rewarding and time consuming process (particularly with students for whom English is not their first language):

I've got a lot of work to do, especially when they're away. I find it far better to supervise them face-to-face. ... Something I could sort out in ten minutes takes me ten emails by distance. And, I don't enjoy it so much. I like the richness of an interpersonal situation.

#### "Supervision is only part, a small part, of their job"

Supervisors are allocated students in varying numbers. At the time of the interviews, the ex-Programme Manager was supervising twenty students and the other supervisor ten. As the course runs biennially and there are full or part time options, the students are at a range of stages in their research. Supervisors are allocated twenty-five workload hours per year to supervise each student during the dissertation.<sup>7</sup> A supervision recording sheet is used to record of the number of contacts during the supervisors. The programme manager noted that in some respects he took a "laissez-faire attitude" to supervisors once appointed, however, this was only possible because of the level of trust that already existed between supervisors as teaching colleagues:

We only started off with four of us and we were all teaching on the programme, and I knew them; people I've worked with for years. So I probably just [made] the assumption that they were good at what they did ... They'd done pastoral care with students, they'd done one-to-one with

<sup>&</sup>lt;sup>7</sup> Supervisors noted that sometimes their jobs were "made a little easier" by student having a local business mentor; staff could facilitate such introductions but this is not a formal component of the course. In general staff and ex-students were supportive of the idea of networking within the business community and for students to seek input from as many people as feasible.

students, so, I didn't see that training was a particular issue. And the other thing is that, literally, we saw each other every day and we'd talk ... [We were] able to keep on top of what was happening. And if a problem came out, we knew.

However, another recent shift, driven by the increased student numbers, has been to expand the pool of supervisors beyond those longstanding lecturers responsible for the taught component. The new supervisors have been selected according to a combination of their business knowledge and academic experience. Whilst there is no formal induction to the supervisory role, new supervisors are given copies of the Research Dissertation Handbook, all course materials and the Student Learning Contract. Furthermore, the Programme Manager allocates several hours to discuss the nature of the programme and the level of supervision required with each new supervisor individually:

For me it's more important that they understand the course [rather than receive supervisor training], because the course is quite unique. I mean this is the only course like this in Australasia. You're actually doing a dissertation about your business. So this is very applied ... You can't get anything better than this, they're actually doing what they're going to be doing for their livelihood.

He also noted that a new supervisor would be given one person to supervise and mentored in how best to apply their existing skills to the supervisory relationship within a framework that respects the huge personal as well as professional investments that students make in a business enterprise course. Both supervisors emphasised that they ethically were unable to offer specific business advice that might influence a student's livelihood, and felt that this was a crucial element to communicate to new members of staff.

## Case Study 2: Polytechnic B

#### Background

Polytechnic B currently has over 10,000 individual students enrolled across several campuses; local economic growth and increasing demand for skilled labour have produced a recent influx of students and generated plans for rapid expansion over the next two years. The polytechnic serves a region that includes urban and rural sectors, with a diverse population including a larger than the national average number of Māori. Qualification statistics show the region to be one of under achievement in secondary and tertiary sectors. The polytechnic provides a range of qualifications to suit the needs of the local community. The institute has a record of collaboration with other tertiary education organisations, industry, private training establishments, secondary schools, community groups and iwi. Over the next decade projected figures indicate that there will be a substantial change in regional ethnic character, with the ageing European NZ population declining as a proportion of the population. The polytechnic seek to implant bicultural and bilingual themes across the organisation, with significant social, cultural and financial investment in this area.

#### The case study

Narrative style interviews were carried out with two members of staff: a senior Staff Developer and a member of the senior management team of the School of Nursing; during the site visit informal conversations were also held with an external expert engaged to improve research culture and two members of lecturing staff. This selection allowed for a particular focus on Nursing as one of the main research active and degree awarding schools in the institution. Data was also gathered from additional publicly available sources including the Polytechnic's website, publicity material, annual report and the relevant Regional Statement prepared for the Tertiary Education Commission.

#### "Research doesn't feature yet"

Like others within the sector Polytechnic B is concerned to improve the skills and qualification level of existing academic staff. The Staff Developer's role includes providing leadership with regard to enhancing the research culture, capability and outputs across the institution. In conjunction with a contracted external expert her role is to improve knowledge of research tools and methodologies, to support staff to generate publishable outputs in writing research proposals to secure funding for research projects. Other senior research active staff focus on assisting others to begin their research careers; collegial support to up-skill is seen as a crucial element of the culture within the School of Nursing, where traditions of clinical practice teamwork have influenced the development of a strong and supportive staff unit. With many academic staff enrolled in postgraduate degrees at other institutions and with no postgraduate courses currently offered by the polytechnic it is perhaps unsurprising that there is no formalised programme of supervisor professional development. The local Certificate in Tertiary Teaching focuses on the delivery of programmes and creation of a receptive learning environment for groups of students. Whilst teaching, pastoral, collegial and administrative issues are covered there is no focus on supervisory skills or issues.

Indeed, there has been recent debate within the polytechnic as to what constitutes research. Some members of staff were resistant to the notion that clinically based projects required research approval and ethical consent, however, the view prevailed that any student activity that required data collection would be treated as research. Yet the larger institutional debate has crystallised around two quite separate groups: degrees and higher qualifications and the more practically based trades. Whilst members of the former group were keen to acknowledge a range of practice as research, the latter were not convinced. One participant commented that, "hairdressers don't see themselves doing research, builders don't see themselves doing research, mechanics don't see themselves doing research".

#### "I see it as being a supportive and educative process"

The School of Business and School of Nursing require students to form groups to engage in community-focused practice-based projects (approximately twelve Business students each year and sixty Nursing students). The students receive general introductions to research methodologies and are supervised by staff within each teaching team. The Staff Developer noted that selection of the supervisor is based on "if you happen to be working in that paper, not because of your experience in supervision". She went on to explain that whilst this may appear somewhat ad hoc, it draws on the skills that polytechnic lecturers have often acquired in other contexts; for example as business or clinical managers where formal and informal mentoring and supervision are key skills. Both she and the member of staff from Nursing emphasised that in clinical nursing supervision the safety of the patient was paramount and this drove the development of highly nuanced supervision skills. This also contributes to a praxis focus within the supervisory relationship:

I also undertake clinical supervision with students, which is a little bit different, and while it's not research as such. We do have an important role to play as far as integrating research evidence based practice into theory and developing learning from that perspective.

This emphasis on the development of practical applications means that supervision is seen as primarily driven by the priorities of achieving quality educational rather than research goals<sup>8</sup>. Indeed, there was some reluctance to talk in terms of supervision with participants emphasising mentorship as a more relevant approach:

With mentorship there's a little bit more of a blurred line ... because in part of the role of leadership ... so that being a good role model and leading the way, if you like, in terms of providing the direction and the support that the person might need.

Participants were also keen to advocate the strengths of transferring skills from a nursing to an academic environment. Practical rigour, clear supervisory responsibilities, cultural appropriateness, the importance of confidentiality and the strength to be gained from teamwork were all mentioned as relevant professionally driven skills. However, this did not detract from an overall feeling that the current climate of learning academic supervision skills "by osmosis"

<sup>&</sup>lt;sup>8</sup> In practical terms the research projects are treated as stand alone courses, so supervising lecturers receive anonymous evaluative feedback from students in line with standard institutional teaching quality assurance procedures.

needed to be reviewed with a view to developing some more formalised school or institution-wide policies to provide professional development and/or recognise the existence of prior skills. One interviewee commented that gaining research qualifications alone was insufficient preparation, "just because you've actually done a PhD doesn't necessarily mean to say you are adequately prepared for a supervisory role".

## Case Study 3: Polytechnic C

#### Background

Polytechnic C is one of the country's larger institutes of technology, with multiple sites and over 24,000 individual students enrolled. Retention rates at Level 7 and above are better than the national average for the ITP sector. The polytechnic provides a range of qualifications from sub-degree to Masters Level, including three significant postgraduate programmes. It serves a region of complex metropolitan, urban and rural sectors, with an ethnically diverse population including a larger than the national average number of Māori. The institute has good processes in place to maintain communications with key stakeholders and has a record of collaboration with other tertiary education organisations, industry, private training establishments, secondary schools, community groups and iwi. Māori achievement, flexibility of provision, collaboration and partnerships with business and increased internationalisation are some of the current areas of focus for the organisation as a whole. Institutional documents and representatives emphasise the need to deliver quality education and training for students and staff, to result in positive outcomes for regional employers and the wider community.

#### The case study

Interviews were carried out with three members of staff: the Research Director, Head of Staff Development and a Head of School. This selection allowed for an appreciation of policy and practices relating to supervisor professional development in the institutional research context and to assess more personal views in relation to supervision relationships. Data was also gathered from additional publicly available sources including Polytechnic C's website, publicity material, annual report and the relevant Regional Statement prepared for the Tertiary Education Commission.

#### "We're trying to encourage everyone"

All participants were clear that the work of research supervision needed to be integrated with both the research strategy for the polytechnic and the overall staff development strategy, which is designed to increase a range of capabilities and capacities in relation to quality research, teaching and learning outputs. In recent years research activities have been centralised within the institution's Research Office. This is augmented by a Research Leader (who receives workload allowances) within each research active school. This structure provides streamlined central administrative processes, whilst facilitating the continued growth of collegial research environments within each school. Staff development functions are similarly centralised in one unit. As the head of the unit notes, "we're in a position where this small unit support[s] all staff irrespective of their role within the organisation". Within the Research Office, whilst a major focus is improving the skills of existing academic staff, it is interesting to note that the desire to promote research culture includes all staff and that corporate staff are able to receive internal research funds as principal investigators. In keeping with Polytechnic C's broad initiatives to develop and support staff, it is important to note the role played by the well-qualified and proactive Library Team who support both staff and student research.

These parallel research and staff development systems are key to understanding supervisor professional development within Polytechnic C. For example, the Research Office has a robust set of procedures to support staff applying for internal<sup>9</sup> and external funding; this includes coaching in the grant writing process and research design. It has also included encouraging staff to use funding to support student research. The Research Director clearly noted the importance of synchronising staff and student research culture with quality supervision:

We are now encouraging the staff members to include student projects as part of their own research project if they are applying for funding. So, a student's project gets funding, but we want to make sure that they have the proper supervision by involving a staff member in there, and we monitor those things.

Promoting the involvement of students in staff research is seen as strengthening research culture and the overall research-teaching nexus across the institution. The intention to set up a Centre for Postgraduate Research is a further strong signal of the moves to include postgraduate students as a core element of building research culture. Another feature of Polytechnic C is also demonstrated in the above quote, which is the importance of monitoring practices. Developing quality supervision as part of a general drive to improve research is seen as a process of culture shift and policy compliance, both of which need to be monitored to ensure success. This is particularly important in the context of providing qualifications to meet the requirements of professional bodies (indeed all polytechnics mentioned the strong role played by external

<sup>&</sup>lt;sup>9</sup> Internal research funding is designed to be succession driven, with funds categorised to encourage experienced researchers, new and emerging researchers, Maori and community involvement, and innovative collaborations with industry. This "seed funding", aimed at encouraging the growth of external funding in the future, is clearly separate from conference presentation funding and school-based professional development monies for conference attendance.

professional bodies in developing and maintaining quality supervision practices). All informants emphasised that the polytechnic is in transition phase. In recent years staff have moved from teaching solely on sub-degree vocational qualifications to degree and most recently postgraduate qualifications. As members of staff have come to realise that "it's not going to be business as usual", so investment has been made in encouraging staff to undertake their own research (including upgrade by obtaining their own research degrees) and to develop skills in relation to working with flexible mode delivery tools.

#### "At the end of the day, we're doing this for the students"

Whilst supervision skills are not (yet) included in the polytechnic's Certificate in Adult Education, the importance of undergraduate student research in shaping research career pathways is recognised within the institution. The Research Director noted that, "that's where they learn these things [basic research skills] and they can go on and do a Masters or a PhD. It's their second year or third year research project that is very important". When this is linked with the recognition of the need to provide support for students in work-based environments then the priority of developing quality flexible learning/supervision becomes apparent. The institution has devoted a lot of time and money to develop flexible learning tools, computing resources and has engaged a learning technologist to help develop existing staff. There is an identified need to up-skill staff in these areas to enable them to work with distance students in different, less time intensive ways, for example this may be as simple as encouraging staff to develop sets of frequently asked questions to enable students to find answers quickly and allow staff to avoid duplication of effort.

The Head of Staff Development noted that a number of initiatives to support student learning via staff development were planned for the near future. He noted that the current state of transition across the polytechnic has driven a different set of priorities:

We've obviously been maintaining a high level of support for individual staff in terms of up-skilling them in the use of technology, classroom observations and so forth. So that's been very, very time consuming. So, quite frankly developing the research [student supervision] workshops has in fact been put on the back burner.

He had identified supervision as an issue that needs to be addressed, and attempted to bring staff together to share their current practice re how they support research students; to date this has been frustrated by reluctance on the part of some members of staff to work across disciplinary boundaries. He hopes that broader culture shifts across the institution will render such inter-disciplinary collegiality more acceptable in the future. Again, there is an important relationship between how research and staff development are conceptualised and linked at Polytechnic C. The staff developer's informal conversations with staff suggested a preference for aligning each school with an industry expert to secure a more subject specialised supervisory skill set. Such arrangements already work well as regards research up-skilling, with external senior mentors acting to develop generalised research capabilities within schools that award Masters level qualifications. However, he felt that this discipline-focused mentoring and coaching should be supplemented by in-house professional development that covered certain aspects (such as building relationships, being culturally responsive, setting special topics and marking dissertations) that "transcend all of the disciplines". He also noted that pedagogy is evolving across the institution to move away from transmissive models and toward more student centred problem solving approaches. He identified similarities between this lecturing mode and supervising research students; this resemblance could act as a lever to encourage future supervisor professional development.

## Case Study 4: The University

#### Background

The University offers a wide range of provision from pre-degree through to postgraduate degree programmes across five Faculties. The institution has made considerable investment in research capabilities, postgraduate provision and commercialisation (in New Zealand and overseas), which has resulted in research culture flourishing across a range of disciplinary areas. This has included a considerable increase in postgraduate enrolments across the University. Although drawing students from across New Zealand and internationally, the University primarily serves a metropolitan region, with an ethnically and culturally diverse population. Maori, Asian and Pacific Peoples form significant proportions of the regional population. There is strong population growth and the resident population is relatively wealthy, however there are significant pockets of deprivation and low educational attainment within the city. The region has a strong international perspective, with a large number of recent immigrants. This provides both a platform for global networks that can benefit the community and challenges regarding how best to integrate and educate those recent migrants who arrive with sparse or unacceptable qualifications. The University has a strong commitment to educational social justice, in particular to Maori and Pasifika advancement. Community engagement is promoted through collaborative programmes with industry, with the trades and professions, and with diverse multicultural population groups.

#### The case study

The case study focused on supervisor professional development practices at postgraduate level. An extended interview was carried out with the senior academic, based in the institution's professional development unit, who leads a cross-faculty programme to support postgraduate supervisors and examiners. The interviewee has a longstanding involvement in the provision of professional development opportunities for tertiary educators, support for postgraduate students and the promotion of policies associated with teaching and research development. Professional development documentation was studied with regard to institutional policies and individual courses. Data was also gathered from additional publicly available sources including the website and the relevant Regional Statement prepared for the Tertiary Education Commission.

#### "What we do needs to be thoughtful"

The University provides a range of professional development opportunities for new and experienced supervisors. This includes a range of workshops: a mandatory introductory session for beginning supervisors<sup>10</sup>, support for supervising projects with relevance to Māori, Pasifika or other ethnic communities, a session for staff who are new to examining research dissertations and a three hour workshop for experienced supervisors who wish to enhance their skills. The interviewee emphasised that:

I recognise the significance of people coming together in workshops who are often strangers to one another at a personal level and strangers to one another as disciplines and professional backgrounds; so I always make sure that there's a lot of opportunities for conversation.

Supervisors are also encouraged to attend the institution's postgraduate student seminar series and other workshops that are relevant to both teaching and supervision (e.g. avoiding plagiarism, interacting with different cultures, flexible learning, supporting student writing). All workshops can be provided on a cross-faculty or school-focused basis. It is also noteworthy that within the professional development programme the relationship between undergraduate and postgraduate research is seen as important. High guality teaching and supervision of research projects at undergraduate level is recognised as preparing students for postgraduate work, "it's beneficial for their learning and it's also anticipating research". The university's Postgraduate Office also supports faculty-based initiatives and produces a comprehensive Postgraduate Handbook, which includes information for students and supervisors. The handbook contains information about policies and procedures, and includes research supervision agreement proformas. These guidelines are designed for use during early discussions between the supervisor and postgraduate student. They are intended to ensure that discussions include key issues that will lay the foundations for a good working relationship. Appendix 3 provides a summary of the issues that are recommended for discussion. The handbook notes that whilst the supervisory relationship is crucial, students may seek assistance from other university staff, as the postgraduate experience should not be reduced to periodic meetings with supervisors.

<sup>&</sup>lt;sup>10</sup> Experienced supervisors who have joined the institution can access an on-line resource to fulfil requirements concerning familiarity with supervision policies and practices.

In addition to workshops the professional development unit supports a range of initiatives in relation to supervisors. These are designed to be flexible and responsive to the individual needs of beginning and experienced supervisors. This honours the professional development approach that recognises, "given the obvious uniqueness of every supervisory student relationship ... there are a hundred and one ways of being a wonderful supervisor". Initiatives include a mentoring scheme for new supervisors, visiting national and international experts, process flow charts, a scripted narrative dialogue of a supervision process, professional practice conversation groups, web-based materials and a range of printed resources including academic articles and annotated bibliographies. The participant described the professional development unit's approach to supervisor development as a "broad brush representation" and emphasised that the fine detail of regulations is dealt with at Faculty and School level. He noted the importance of good internal communications to produce guality resources, liaison with the Post Graduate Office and Associate Deans of Research were crucial in this regard.

#### "We're not trying to write a generic recipe"

The scripted dialogue<sup>11</sup> of a representative supervision process is designed as a readable, and memorable story with embedded information relating to institutional requirements and supervision processes. A new webbased resource, which builds on the strengths of the scripted narrative approach, is under development. It includes narrative case studies of archetypal students as they progress through their research degree programmes. The web resource is intended to become "the ultimate compendium" with a comprehensive talking glossary designed for graduate research students, experienced and beginning supervisors. Whilst the resource is designed for both supervisors and students, in its current early stages "the student perspective [is] in the foreground". Later iterations may include enhanced information about supervision practice, but with limited finances the choice has been made to focus on students for the time being. There are plans for further expansion in the future to include enriched, interactive resources and more faculty specific information.

Catering for diversity in the student and supervisor populations is emphasised across the professional development programme. This acknowledges discipline-related pedagogic differences, as well as the international and national broadening of student and supervisor populations. The interviewee noted that even incoming staff from English speaking countries can be perplexed by the New Zealand system, for example "coming from the North American setting, where a lot of aspects of supervision and process around that are just quite different". He encourages workshop participants to recount their own stories and identify critical incidents, which could be used to both develop initial proficiency and encourage more advanced expertise. He emphasised how

<sup>&</sup>lt;sup>11</sup> Originally deployed as part of a scripted role-play within workshops.

such sessions open up and develop debate and practice: "You need to destabilise people of some knowledge and know how, and get them to re-think or re-examine that there probably are some situations for which they have uncertainties, or they simply don't know how to get with them, and that's what we need to focus on".

## Case Study 5: The Private Training Establishment

#### Background

The PTE is based in the same metropolitan area as the university in Case Study 4. The city is home to a wide range of PTEs with a number of specialist providers. In general PTEs are well connected to the industry groups they serve and, although competition is fierce, several niche providers have generated success over a number of years. The case study PTE provides a range of arts and design qualifications at undergraduate and postgraduate level. The first Masters degree was offered in the 1990s, with the Master of Fine Arts conceived and established as a low residency degree. Creative industries are one of the key business areas for the city and jobs that rely on individual creativity skills are predicted to continue to grow rapidly and are an important enabler for growth across other economic sectors. The institution aims to encourage independence, creativity and risk-taking from foundation to postgraduate level. Internships are integral to all programmes, on-campus involvement with industry practitioners is a vital part of the curriculum and all lecturers are practicing artists, designers, administrators, therapists, educators and researchers.

#### The case study

The case study focused on supervision practices at postgraduate level; where four research-led master's degrees are provided: a Master of Fine Arts and three other Masters of Arts degrees. Interviews were carried out with five members of staff: the Dean and Associate Dean of Instruction, the Dean and Associate Dean of Research and Postgraduate Studies, and a Masters Programme Manager. All five participants are supervisors of dissertations at Masters level. Course documentation was studied and data was also gathered from additional publicly available sources including the website, publicity material, academic regulations and the relevant Regional Statement prepared for the Tertiary Education Commission.

#### "You look for people out there who talk the talk and walk the walk"

The Masters programme approach is low-residency. This involves a mix of online home-based study and intensive on-campus seminar weekends or weeklong seminars, over two years. The majority of students are New Zealand based, however, a small number of overseas students are enrolled. The on-campus seminars involve lectures, intensive critique and assessment and one-on-one interaction with staff. Visiting academics, administrators, art practitioners, curators, therapists and critics are also included. Home-based study is supported by research supervisors via the Internet. Case study interviews focused on supervisors of postgraduate students, with particular focus on MFA programme. This degree is intended for practicing artists, designers and educators who wish to up-skill and develop artistically. During the first semester students are supported to establish appropriate discipline in studio practice, research skills and supervisor relationships. They are also encouraged to build a sense of community with their student cohort; this may include small local study groups that meet away from formal sessions (at the time of the case study groups existed in Rotorua and the Waikato region). A preliminary body of visual work and an academic research paper examining theoretical issues relevant to the student's studio practice are required before entering the major studio research period of the degree. The MFA culminates in the exhibition of a comprehensive body of work and a formal academic dissertation. Each student is assigned a studio research supervisor (often a senior artist working in the student's local community) and a contextual studies supervisor (from the PTE's Faculty). Several participants noted that within Art and Design there are often language issues that are not just related to English as a second language but also to a high level of dyslexia amongst the student group. In both instances, the supervisor is not expected to take on the bulk of this work; rather an additional tutor can be appointed to support the student's development (this does incur an additional cost to the student).

A core group of senior staff have all been involved with the Masters programmes since their inception and have developed their supervision skills in the context of a closely-knit, small organisation, which has kept a relatively stable staff group as it enlarged the gualifications offered from Diplomas to undergraduate degrees then Masters degrees. The participants all agreed that the small numbers of students and compact staff team meant that a personalised approach could be taken to supervision and supervisor development. As the postgraduate programme started off in modest form with a very small student cohort all initial supervisors were drawn from existing members of academic staff. This team had already worked well together at undergraduate level, all participants agreed that the pre-existing positive culture contributed to the development of supervision skills, "we spent a lot of time together developing a culture and now we just build on that". International links have been important in supporting this culture, with a member of academic staff from an equivalent MFA programme in North America being used in a mentoring role, to offer advice, support and stimulus to conversations about supervision in the context of creative arts. The current arrangement does include a formal induction meeting for new MFA Supervisors each January, however, the arrangement is described as a "largely informal but collegial system of supervision that's evolved because we have a small Faculty". As one participant emphasised:

I'm not saying it's perfect, it's not perfect by any means, and the challenge is always bringing somebody into what is a fairly tight loop and we've got to be very careful that we bring them in well. But you're not going to see a professional development workshop for supervision, you might see a Faculty workshop on an issue of the moment but it's not going to be part of a larger process because we're doing it [staff development] iteratively each day.

80% of the final MFA award is determined by the practical art component and 20% by the contextual studies dissertation. Each student is allocated a studio and a contextual studies supervisor, and the two are expected to communicate regularly with each other. Whilst the latter is ordinarily a member of the PTE's academic staff many studio supervisors are external, contracted artists and academics. The low residency nature of the degree means that it is often appropriate to appoint a studio supervisor from the same locality as the student. The PTE has robust systems in place to ensure appropriate appointments and support for the supervisory relationship. The pairings of student and supervisor are made with care. One Dean noted, "it's quite a fine little piece of social and scholarly engineering". The Deans are cautious in their appointment of supervisors<sup>12</sup> and recognise that selecting the appropriate people is a key strategy to ensure successful outcomes. Students are encouraged to seek out potential supervisors in their specialist fields, who the Dean of Research and Postgraduate Studies will approach to assess their suitability. New supervisors must have attained at least a Masters degree and their own art practice is an important factor in assessing suitability. One Dean noted the importance of studio supervisors as role models and emphasised the broad notions of practice and context that are required: "... they've exhibited, they've studied somewhere else, they've been included in juried shows and been curated into exhibitions, have gone overseas ...".

#### "Our communications policy has prevented so many disasters"

The MFA was established as a low residency programme, modelled on (and thereafter benchmarked against<sup>13</sup>) low residency MFAs in other settings internationally. Thus from the programme's origin supervisors have been required to work with students at distance with scheduled face-to-face sessions as dictated by the curriculum timetable. Participants reported that the MFA has a completion rate of over 85%, which compares favourably with Ministry of Education figures (2007) showing a Level 9 completion of 58%<sup>14</sup>. Whilst there is

<sup>&</sup>lt;sup>12</sup> All supervisor relationships are contracted on a per semester basis and it is made clear to all parties that the contract of employment is between the supervisor and the PTE not the supervisor and the student. Therefore if any difficulties arise the responsibility rests with PTE management (and not the individual student) to untangle complications.

<sup>&</sup>lt;sup>13</sup> The programme is benchmarked internationally twice a year to ensure comparability with North American and British MFA standards.

<sup>&</sup>lt;sup>14</sup> Participants felt that the completion rate was due to both the high quality, individualised attention provided during the programme and the nature of the student cohort. Many students come into the

no extended training programme for supervisors, there are various support mechanisms in place to assist supervisors in providing quality learning for students. A comprehensive course handbook provides clear expectations for both students and supervisors. A formal orientation process ensures that students read the text and that rights and responsibilities are clarified in group discussion as well as in print. The Postgraduate Programme Manager carries out a brief orientation during the residential component for supervisors able to attend (overseas supervisors are not expected to attend, however New Zealand based supervisors are strongly encouraged to do so). The session includes information about managing candidacy, practical requirements and communications policies. Deans formally and informally monitor the student-supervisor relationship to ensure that it is in line with institutional expectations of good practice. The Dean will visit students in their studio both with and without the supervisor present. All supervisors, including those working at a distance, are encouraged to attend the residential segments of the course. This enables the Deans to see first-hand the student-supervisor dynamic and to offer additional individualised support and advice as necessary.

The PTE's communication policy insists upon regular, frequent and documented contacts. All communication by email or writing between supervisor and student must be copied to the Postgraduate Programme Manager<sup>15</sup>, who monitors the level, depth and regularity of the supervisory relationship and alerts supervisor managers as necessary. This enables any difficult issues to be identified promptly and ensures that an accurate record is kept of the supervisory process. The Programme Manager also acts as a first point of contact for student or supervisor concerns. She operates as a "triage person" dealing with minor issues immediately and passing more serious concerns to the relevant Dean, Associate Dean or Programme Manager.

Overall the supervisory model seeks to facilitate a process that honours the belief that not only the relationship with individual supervisors but also a supportive community of academics and students support the student. This is particularly evident during the residential portions of the course, when the staff members provide critical assessment of all students' work and students are encouraged to speak with a range of staff. One supervisor noted that, "an important aspect here [is that] we tend to not be too clingy to those that we are supervising. We do share it around and if the students feel they'd like to talk to anyone else within the Postgraduate department they can and they do and I think that's healthy".

programme as highly motivated, professionally successful, mature students (the average age of students in the Masters programmes is 47).

<sup>&</sup>lt;sup>15</sup> The Postgraduate Programme Manager is regarded as a key appointment. She is considered a member of both the administrative and academic staff, holding an MA and capable of supervising students if required.

## Cross Case Study Analysis: The Supervisors

Whilst the case studies have highlighted institutional policies and practices in relation to supervisors' professional development, a further important aspect of the research design was to explore how supervisors draw on resources and professional development activities to develop pedagogies of research supervision. As is apparent from the case study narratives few supervisors had undertaken formal supervisor training, however, they had access to a range of skills, experiences, resources and non-supervisory formal professional development opportunities.

An inductive analysis of the interview data using NVivo software was carried out in a manner consistent with grounded theory to produce a thematic coding scheme arising directly from the data. The main themes identified were: memories of supervision, supervision as teaching, transferring skills, personal attributes and learning from colleagues.

#### Memories of supervision

Whilst books, articles and online information were sources of information for a few, most supervisors mentioned their own student experiences as the major factor in determining an approach to supervision. Some had experienced positive role models:

When faced with this task for the first time I remembered back to my own Masters supervision experience and I was fortunate that I had a very good supervisor so my model, my supervision model was very good, imprinted in fact in my brain.

I suppose you kind of model yourself on aspects of certain people and find your own way. Yeah, I appreciated things that people did well for me and I've certainly used those and modelled myself on those aspects. Same with the teaching side too, good teachers you had.

Others had been less fortunate and developed a supervisory style based around not wishing to repeat such negative experiences for their own students.

[My supervision experience] was enough to taint my thinking. I mean I got through and they were supportive. But to me at that level it needed to be more. But, you know, it's like going to a restaurant and having, you have five good cups of coffee and then you have one bad cup of coffee and you remember the bad one.

I felt [my supervisor] didn't know what he was doing. So I bought a few books on supervising PhD students. So, I taught myself what I was supposed to do. I started managing him. So I got my doctorate because I

knew what was supposed to happen. So I knew what to do to supervise the students when I got here.

Defining roles and expectations was a clear sub-theme for many participants. One compared her experiences as Masters and PhD student to illustrate how she had learnt the importance of clear communication early in a candidature:

I did Masters by thesis and I had an uncomfortable feeling as a student in that I didn't really quite know where the boundaries were sometimes. ... There was never any discussion at that time about what the role of the supervisor was and really what they expected of me other than the fact that obviously I was going to produce a thesis.

...

In my experience as a PhD student, I was really, really fortunate to have an excellent supervisor and the school that I was working through also had a process that facilitated a very open and frank discussion about expectations. We had an understanding [of] what we were both responsible for; it was really, really helpful

#### Supervision as teaching

All the supervisors characterised supervision as an aspect of teaching. Several had not sought out the role of supervisor; rather they were assigned the responsibility as a logical extension of existing teaching. Often for these people there was no time to prepare before being allocated students.

I suppose I was thrown in the deep end and found my own resources and my own way around it and eventually plugged in to more resources, in terms of people and contacts online and resources and so on, that fed those skills.

I started teaching the Research Methodology paper, part that was students writing their dissertation proposal, so it just naturally happened that I [became] one of the supervisors.

This lack of preparation to supervise meant that some supervisors felt insecure about their abilities; one noted that she had "sort of kept two steps ahead of the needs all the time ... it seems to have worked so far". Whilst another reminisced about considerable uncertainties during her early years as a supervisor: "I waited for them to say 'you're a fraud, you know nothing about it,' because I think that the more you learn, the more you realise how little you know".

Several participants had completed adult teaching qualifications. Although these had not explicitly included supervision of research students, participants felt that the skills learnt were applicable to supervision particularly with regard to "staircasing" a student through to greater understandings. Indeed, most participants emphasised that subject content was secondary to teaching within the supervisory relationship. They agreed that for postgraduate study the student was expected to become the content expert early in the process, and that the supervisor's primary role was to facilitate the development of cognitive skills:

The most important aspect I found is the fact that there's a mindset change and behaviour change supposed to happen in people so that they become active researchers instead of, of methodology deployers. So the most important thing I found was to get the paradigm going, the mindset going of questioning, 'where does knowledge come from?'

I've got an inclination and disposition to think about the mental life and how we can bring that into view because you can't learn to be a researcher by watching a person researching.

#### Transferring skills

Most participants spoke of transferring skills from other areas of their professional and personal lives to enhance their supervisory practice. Some had acted as managers, supervisors, librarians, mentors or adult educators. Concepts of professionalism were frequently seen as having been learnt in contexts other than academe:

If I get a question from a student I respond the same day even if I can't answer the question. I tell them when I will answer the question and what I'm doing to find out. And that comes directly from my business background.

Confidentiality is one of the hallmarks of [nursing] practice and we're actually generally quite clear about the divisions ... I can be out here and talking to one person privately about something and that stays there. It's like that in practice, you move from client to client in those situations all the time. So yeah, I think that my background as a nurse probably assists that process [of supervision] quite well.

Yet, relevant learning was often seen as coming from broader, more personal, life experiences rather than professional practices:

I used to have goats as a kid. And if you wanted a goat to come in a certain place you can't pull it by its tether because it has feet specially designed not to be pulled. They'll dig in and you'll break their legs rather than go with you, so you always go behind them and they will run away from you. So it's easy you get behind and make them think it's their idea and they will take the lead and off they go. So, I think my goats taught me

a lot about human nature and I think probably my experience with goats helped me more than my experience as a manager.

Well I work with all the Māori and Pacific Island students here and that's my, always been my role and I go out to bat for them and I go out and bat hard... Because I've lived in the Islands, my husband's an indigenous Fijian, I speak Fijian, I lead two quite different lives. When I step off the plane in Fiji I'm home and this [New Zealand] is the place that I am when I'm not home. ... I listen and I hear, but I also know what they're saying and those people who've not lived in the Islands, have not lived amongst Māori and Pacific Islanders, don't have that lived knowledge and you can't teach a lived knowledge, you can only live that knowledge.

#### Personal attributes

A common theme was to link the acquisition of new supervisory skills and understandings with pre-existing personal attributes.

Part of my personality is to try and draw out the creativity within the person and because I think a lot of research if it's creative, and I mean creative in the sense of originality of thought, then it's exciting for me and so you know I try and make it exciting for the student as well.

I'm instinctively a researcher so I get on the Internet or I go to the library and find out about what research supervision is all about.

Personal attributes were understood as both "natural" and emergent. The following two quotes illustrate the complex interplay of experience and disposition:

I couldn't have done it when I started teaching. I couldn't have done it in the early days. ... So it's really life experiences as much as anything. It's just been time on my feet teaching and, and coming up against all kinds of different issues and, and problems. I couldn't supervise if I hadn't both, studied to enough degree, taught for a long time and then have, have actually had some practical experience in it. And, now I'm very comfortable with whatever comes. I like the uncertainty of not knowing what's going to crop up next.

I just think out of years and years and years of teaching one develops a personal style and it evolved. I mean I certainly haven't read a lot and from my own experience of knowing what I didn't like, at being supervised, and what didn't work for me and the feedback from the students their evaluation of how it's going for them.

#### Learning from colleagues

Supervisors had sought feedback from a range of sources and all were keen to discover more about their role and how it compares to the way in which others pursue the tasks associated with supervision. Several had experienced a mentoring or "buddying up" relationship with a senior colleague as a way of acquiring skills and confidence. All spoke highly of such relationships:

I had the benefit of a sort of mentorship of Professor [name] because I'd known her back in [country of origin] and we'd worked together there and she has a wonderful reputation as a supervisor. I think she is really, really smart. And I've had wonderful conversations with her and she's been very, very generous in terms of advice and so on.

The very first time I was supervisor, for a student, we had a, a piggyback system, so there was the principal supervisor, who was supervising me supervising a student. So that was a good, a really good relationship that he and I had, and it was interesting, because sometimes he would just, literally, sit back and let me talk to the student and then tell me the things that I had done ...He was very skilled, really, in supervising supervision.

Collegial support networks were the second most popular source of feedback and advice. Most interviewees acknowledged that they would talk with close colleagues about difficult situations or seek advice about how to deal with novel situations. Programme Managers were often the first person to be consulted, although they were usually part of broadly based formal and informal collegial support networks. One further form of feedback was from assessment processes. Several supervisors used external assessors' dissertation marking reports as key indicators for future practice and one believed that his own experience as an external examiner contributed significantly to the advice he now gives to students. As with other themes identified by supervisors, the notion of developing reflective practice is a repeated motif. Although one informant sounded a note of caution:

Reflective practice has become an opaque slogan and I partly agree with that. So I've found it more helpful to think and talk about being a thoughtful practitioner. ...[We need to ask] what's the character and the quality of the nature of the thinking to do with these things if you're a researcher or a Teacher?

#### Themes and narrative complexity

Whilst this initial thematic scheme will be further refined in future work to enable a more in depth treatment, it is important to note that these empirically generated codes appear consistent with current understandings from the supervisor literature. The portions of interviews focused on the personal acquisition of supervisory skills are highly complex webs of narratives. There is no simple story line, rather a weaving together of a variety of, sometimes contrasting, themes and events. Individual's webs of stories move beyond merely providing a context for a main narrative of supervisor professional development. For example, Table 3 lists the multiple elements an experienced supervisor of undergraduate and Masters' level research 'contours' between in order to develop a personally meaningful narrative, which *requires all elements* to make her personal story meaningful.

PAST EXPERIENCE AS A PHD STUDENT	PAST EXPERIENCE AS A MASTERS STUDENT	BEING A RESEARCHER	THE REGION	EXPERIENCE AS AN EDUCATOR
MENTORING OTHER STAFF MEMBERS	COURSE HANDBOOKS	FRIENDSHIP NETWORKS	OSMOSIS	FORMAL SUPERVISOR TRAINING
PAST EXPERIENCE AS A NURSE	CHILDHOOD SCHOOLING	CLINICAL SUPERVISION	EVOLVING CULTURES	FLEXIBILITY

#### Table 3: An example of the elements necessary to explain the development of supervisory practice

## Discussion

The emphasis on postgraduate research processes in recent research and advice literature is echoed in the cross-institutional findings of the online survey. Only two organisations (a wananga and a polytechnic) reported providing institution-wide supervisor professional development at sub-degree level; the current poor retention rate for Maori students (Ministry of Education, 2007) appears to be an influencing factor in this approach. In addition, evidence from the case studies suggests a growing concern that an enhanced researchteaching nexus at pre-degree and undergraduate level requires staff to be wellprepared to supervise small research projects (as identified by Jenkins & Healey (2005) as a key strategy to enhance the nexus and strengthen distinctive teaching and research capabilities). The universities appear to be approaching this issue via devolution of such professional development to schools and faculties, which is in sympathy with the growing literature relating to disciplinespecific "signature pedagogies" (see Shulman (2005) for an overview of these characteristic forms of teaching and learning). Polytechnic C plans to expand its current arrangement of aligning each school with an industry expert for research up-skilling purposes to include mentoring with regard to subject specialised supervisory skill sets. However, devolving professional development responsibilities to disciplinary-based schools carries the risk of sporadic provision with variable quality; so decentralisation should include effective communications between units concerned with teaching and research development and schools (Jenkins & Healey, 2005). Case studies 3 and 4, demonstrated particular

concern to maintain and enhance such communications. Interestingly, both institutions appreciate the close connections between building staff research capability and enhancing postgraduate student experiences and outcomes. Promoting the involvement of students in staff research is seen as strengthening research culture and the overall research-teaching nexus across the institution. This generates a dual approach to building staff and student research skills, which sees staff developers working to enhance a broad range of skills within schools and across the institution.

With one exception the Research Office was one of the central units involved within the university sector, whereas PTEs and polytechnics were likely to include programme managers and/or teaching development units. The wananga was the only institution to report the involvement of a Human Resources department in supervisor development. Half of all respondents pointed to experienced supervisors as a key resource and one third made use of external experts. Formal and informal support from colleagues was emphasised repeatedly by supervisors, managers and professional developers. Creating a supportive culture with good quality communications and unambiguous processes and responsibilities was recognised as a key way to support staff and ensure high guality learning outcomes for students. Although a feature in all the case study institutions, this approach was particularly evident within Case Study 5, the PTE, and was a strong feature to support both staff and students in implementation of a highly successful low residency Masters degree. To varying degrees mentoring with senior colleague, peer mentoring and supervision discussion groups were in evidence across institutions. Additionally, several supervisors and managers used external assessors' dissertation marking reports as key indicators for future practice (perhaps examiners should bear this in mind when writing their reports).

All the surveyed universities indicated that supervisor support or training is available for work at doctoral level, and all save one indicated development also occurred for Masters level supervisors. At doctoral and Masters level prevalent topics for formal professional development echo the best practice advice within the literature, and are concerned to provide novice supervisors with an informational "toolkit", often taking the form of a Postgraduate Student and Supervisor Handbook. Such guides often include administrative proformas and explanatory flowcharts to map institutional regulations and pedagogic approaches. Most are careful to raise awareness of the networked support available to students via learning support, IT, library, and other members of academic and general staff<sup>16</sup>. Postgraduate supervisors are also provided with information relating to the establishment of the supervisory relationship and with skills to maintain student impetus through the research process, particularly how best to encourage timely, high quality writing. Although institutions provide

<sup>&</sup>lt;sup>16</sup> The case study PTE had recognised the Postgraduate Programme Manager as a key role and made a joint academic/administrative staff appointment, which provided students and supervisors with a contact person who could speak authoritatively in both roles.

orientation sessions, mentoring programmes are also prevalent and web-based resources are evolving rapidly (as witnessed by the developments within the case study university).

In responding to the online survey several polytechnics and PTEs did not regard themselves as providing any professional development for supervisors of student research. As is apparent from the case study narratives few supervisors had undertaken formal supervisor training, however, they had access to a range of skills, experiences, resources and non-supervisory formal professional development opportunities that survey respondents may not have recognised. In line with previous research<sup>17</sup>, supervisors across institutions explained how memories of their experiences of being supervised are influential. Indeed memories were often privileged over information from books, articles and online sources. Whilst there are potential problems with mimicry of an ex-supervisor's approach, there are clear professional development advantages to grounding emergent practices within personal and professional experiences, so long as this is accompanied by disciplined reflective work. The story-dialogue approach (outlined by McCormack & Pamphilon, 2004) is one example of how structured memory work may be linked with current day supervisory experiences in order to shift the focus of professional development programmes from training to reflective practice. Most research participants spoke not only of drawing on memories of supervision but also of transferring skills from other areas of their professional and personal lives to enhance their supervisory practice. In fact, professional developers and managers assumed that supervisors were able to use acquired attributes and skills in this way. As supervisors reflected on their professional development they produced narratives that demonstrated complex interplays of experience and disposition. There is no simple story line, rather a weaving together of a variety of, sometimes contrasting, themes and events. If, as some commentators have suggested, the supervisory relationship can be seen as an uncertain and risky pedagogic approach (e.g. Grant, 2003, 2005) then it is unsurprising that respondents produce multi-layered narrative networks to explore both supervision and attendant professional development. The supervisory relationship is already recognised as a place where the contested identity of the student as scholar is negotiated and created (Kamler & Thomson. 2007); the current research has highlighted the similar complexities and anxieties faced by supervisors as they too re-craft their scholarly identity through the process of supervision.

All supervisors characterised supervision as an aspect of teaching that required attention to building students' cognitive capabilities as a key research skill. The case study materials supported the view of supervision as a specialist form of pedagogy intimately connected to supervisors' conceptions of research (Kiley & Mullins, 2005; Lee, 2007). A number of respondents had first been assigned the role of research supervisor as an extension of existing teaching

<sup>&</sup>lt;sup>17</sup> Indeed, Wisker (2005) confesses that the idea for her book came through reflecting on her own practice as both student and supervisor and she includes an overview of her own "learning journey".

duties, e.g. moving from lecturer on a Research Methodology paper to helping students write dissertation proposals to supervising student research. The Case Studies, particularly Polytechnic A and the PTE, show how the levels of trust that already existed between teaching colleagues facilitated the move to working with research students. For some this gradual easing into the supervisory role felt haphazard and resulted in insecurities about their abilities; in contrast others welcomed the gradual transition as a way of building on their teaching knowledge and skills base. It is likely that the type of collegial support available and the level of prior teaching experience may be a mitigating factor in how such transitions are perceived. The emphasis on supervision as teaching, particularly at predegree and undergraduate level means that supervisor development is evidently seen as an augmentation of teaching rather than research skills. Interestingly, only Polytechnic C seemed to have plans to incorporate supervisor training into the institute's Certificate in Adult Education.

When identifying issues for future focus respondents to both the survey and during the case studies had an acute appreciation of the processes related to supervisor professional development and student research as complex with institutional, disciplinary and international factors producing a highly contested field of practice. The areas highlighted for future consideration have been wellsignalled in New Zealand by the Tertiary Education Commission and Te Kupenga o MAI: The National Programme for Māori and Indigenous Postgraduate Advancement. They include catering for domestic and international student diversity, acknowledging discipline-related differences in research and supervision; encouraging experienced supervisors to continue to develop their supervision capabilities, and working with students and/or supervisors at a distance across global academic and practitioner communities.

## **Concluding Remarks**

This study offers only a glimpse of the diverse approaches taken to supervisor professional development, and the understandings of individuals and organisations regarding the development of practice. The data highlights the range of institutional approaches to supervisor professional development and the major themes of the complex narratives that supervisors employ to make sense of their experience. One outcome has been to raise awareness of supervisor professional development across a range of tertiary organisations. It is hoped that this will enhance future networking between staff developers who prepare staff to supervise student research at a variety of qualification levels. These emergent relationships can be facilitated by Ako Aotearoa's interactive webbased communities and resources, and may help to generate productive relationships, including cross-institutional partnerships for future, collaborative projects that will be able to focus on developing national initiatives in this area. It would not be appropriate to generalise the findings too broadly, however, based on the areas highlighted as important within this report, there are several implications for the development of practice:

- Supervision should be recognised as a space for crafting (and re-crafting) scholarly identities for both students and supervisors. Professional development should encourage challenging reflective practices to acknowledge and build upon the knowledge and life experiences of supervisors with regard to their prior personal and professional experiences.
- Many supervisors develop their skills via evolving and expanding upon other teaching duties. Institutions can enhance this process by acknowledging preexisting skills and by developing tertiary teaching qualifications that include supervision as a specialist pedagogy. Such development needs to target both novice supervisors and experienced supervisors seeking to enhance their skills.
- Professional development models should seek to facilitate a process that honours the supervisory relationship as requiring not only competent individual supervisors, but also a supportive community of academics, other staff and students. Supervisors' professional development processes, handbooks and students materials need to emphasise that supervisors and students are expected to access a range of networked support facilities such as computing, library and learning support services, together with other members of academic and general staff.
- Devolution of professional development responsibilities to Faculty or School level allows for the development of discipline specific supervisory pedagogies. Such developments must be coupled with effective communications between all units concerned with teaching and research development.
- Staff need to be well-prepared to supervise small research projects, this strengthens the research-teaching nexus at pre-degree and undergraduate level, provides a stimulus for community and industry engagement, and impetus to postgraduate programmes.
- Web-based resources are rapidly becoming a key vehicle to facilitate professional learning networks and encourage community-building. Their emergence is also important in developing inclusive ways to work with students and/or supervisors at a distance across global academic and practitioner communities.

This research project was a scoping exercise; future more in depth research is required that adopts longitudinal, multi-dimensional, multi-method approaches to help develop credible models of how professional development affects the structure, acquisition, application and retention of supervisor knowledge, and how this influences students' experiences and outcomes. In the current climate of credentialising and socialising students to undertake research projects, dissertations or theses at all levels from pre-degree to doctorates the role of supervisors, embedded in a supportive research culture, remains crucial in ensuring that students complete their education in a timely manner and gain enriched abilities with regard to research skills, scholarly endeavour and academic identities.

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# **Appendix 1**

#### The Online Survey Section one: About your institution

- 1. Please select the type of institution
  - University
  - Polytechnic

  - Wānanga
    Private Training Establishment
    Other (please specify)

2. Please indicate the qualification levels available at your institution and whether specific supervisor professional development is provided for each level.

Level of qualification	Awarded by your institution	Professional development provided for supervisors of research at this level
Sub-degree-level		
Bachelors		
Honours/Postgraduate Certificate/Diploma		
Masters		
Doctorates		

#### Section two: Professional development for supervisors

1. Please indicate the kinds of professional development that you provide to support supervisors (indicate all those that apply).

Training sessions	
Web-based materials	
Printed materials	
Mentoring	
Buddy system	
Peer support group	
Other (please specify)	

2. What supervisor support or training is available for each qualification level?

Support or training	Doctorates	Masters	Hons/Post grad Cert/Dip	Bachelors	Sub- degree- level
Codes of practice					
Ethics					
Managing candidature					
Examining project reports or theses					

Academic writing			
Dealing with			
problems		 	
International			
students		 	
Maori students			
Pasifika students			
Orientation for		 	
novice supervisors			
Orientation for			
experienced			
supervisors new to			
the institution			
Orientation for			
experienced			
supervisors new to			
New Zealand		 	
Information about			
funding support for			
students			
Information about			
resources available			
for students, e.g.			
ICT, library,			
equipment.			
Discipline area			
specific training		 	
Other (please			
specify)			ļ

#### Section three: Resources

1. Who is responsible for the professional development of supervisors? (indicate all those that apply)

Research Office	
Human Resources	
Teaching Development Unit	
External experts	
Experienced supervisors	
Other (please specify)	

## 2. How do you acquire training resources? (indicate all those that apply)

Workshops and conferences	
Reference/information sources	
Journals and reports	
In-house training materials	
Other (please specify)	

#### Section four: The future

1. What do you see as the most important future changes and challenges in developing research supervision skills?

2. Are there any other aspects of supervisor professional development that you would like to comment upon?

# Appendix 2

## Case Study 1 (Polytechnic A): Research Supervision Learning Contract

#### LEARNING CONTRACT

#### **Research Student**

I agree to:

- □ Reach a decision on meeting dates and attend meetings well prepared (could be via email)
- □ Maintain a consistent work pattern
- □ Submit drafts/work as agreed at least one week in advance (or by negotiation) of supervision meeting for comment and discussion
- □ Suggest issues, questions and concerns for discussion arising from work in progress or chapter drafts for an agenda for the meeting
- □ Consider and take advice on aspects of conceptual issues, methodology, reading, progress, writing up, presentations and so on, as appropriate from the supervisor
- □ Inform the supervisor immediately of any major problems in the research, changes in workload which affect the research and personal issues which may effect it. For example, moving house, business commitments etc.
- □ Add any other items to learning contract after negotiation and agreement with supervisor

#### Supervisor

I agree to:

- Reach a decision on meeting dates and be prepared to consider key issues, overall work and future developments
- □ Read and comment on drafts/work as agreed in advance of each supervision meeting for comment and discussion
- □ Suggest issues, questions and concerns from discussion arising from work in progress or contained in the chapter drafts for an agenda for the meeting
- □ Offer advice on conceptual issues, reading, methodology, progress, writing up, presentations and so on, as appropriate
- □ Inform the student immediately of any major problems in the research, changes in workload which effect the research, and personal changes which might effect it. For example, extended leave, job changes etc.
- Advise on conferences and opportunities for publication and presentation where appropriate
- Any items discussed will remain confidential
- □ Add any other items to learning contract after negotiation and agreement with student

# Appendix 3

## Case Study 4 (The University): Summary Issues for Discussion

## SUPERVISOR/STUDENT UNDERSTANDINGS

#### What is a Thesis/Dissertation?

Issues to discuss might include:

- what form should a thesis or dissertation proposal have in this discipline?
- what paradigm/model of research will be used?
- what referencing conventions should I follow?
- what is meant by "originality" or "advanced knowledge" or "new knowledge"?
- who owns papers arising during and after the supervision period?
- in what publications could parts of the thesis or dissertation be published as papers?

#### **Meetings**

Issues to discuss might include:

- frequency and duration of meetings
- access to supervisor outside scheduled meeting times
- should meeting decisions be noted? By whom?

#### **Advice and Support**

Issues to discuss might include:

- expectations of feedback: how much, how often, in what form, with how much notice?
- support with theoretical content, eg. resources, contacts: how much can be expected, given the supervisor's knowledge of the area?
- what other kinds of knowledge are needed, eg of the research process, of academic writing, of the literature, of data storage and retrieval, of statistical treatment etc.?
- are there relevant personal circumstances that might make the supervision or completion of the Thesis/Dissertation difficult, eg. student suffering financial hardship or experiencing relationship difficulties or supervisor going on sabbatical?

#### Time Frame

Issues to discuss might include:

- how long should the different stages take to complete?
- what would be a realistic completion date?

#### **Joint Supervisors**

- what roles will be taken by each supervisor (main and secondary), what inputs will each have and what kind of feedback will each have?
- if there is disagreement between joint supervisors, how is this to be resolved?