

FROM BEHIND CLOSED DOORS: MAKING THE TACIT EXPLICIT IN RESEARCH SUPERVISION PRACTICE

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ABSTRACT

Government policy requires improvement in the supervision and support of research higher degree students. This paper describes a recent initiative that draws on a variety of sources of evidence to underpin the design of research supervision development. In this approach evidence translates into a learning experience designed to make tacit practices explicit so that they can be questioned, reflected on and changed in line with the needs of particular students. The paper concludes with preliminary outcomes emerging from this initiative as reported by participants, observers and a presenter. Recommendations as to how these might be developed further are also considered.

INTRODUCTION

A number of key contextual drivers form the backdrop to this study. These include firstly taking account quality assurance and sustainable practice in research higher degree supervision within an increasingly market-based approach to higher education. Secondly, noting the needs of a diverse student population including many more international students in Australian universities coupled with the increased use of distance, e- and m-learning within research higher degree supervision. Thirdly, acknowledging the lack of research higher degree supervision expertise in the post 1992 universities in England and staff from teacher education colleges who were given university status or amalgamated into existing universities in Australia. Fourthly, recognising the emergence of new disciplines offering doctoral programs both as PhDs and Professional Doctorates and, finally, taking a 'futures' perspectives, looking forward to what research students may need to learn from engaging in higher degree study in order to pursue an academic/research career (Blass, Jasman, & Shelley, 2010; Platow, 2011).

'Doctoralness' (Blass, et al., 2012) in research supervision develops from recommendations in several Australian government reviews in 2008 including Australian Government Department of Education, Employment and Workplace Relations, House of Representatives Standing Committee on Industry, Science and Innovation, Review of the National Innovation System, and subsequent policy documents on higher education (Australian Government Department of Education, Employment and Workplace Relations, 2011; Australian Government, Department of Innovation, Industry, Science and Research, 2009, 2010). In particular, there is a need for an increase in the number of research students and for further development of the future academic workforce. In addition, The Bradley Review specifically calls for 'the education, training and development of world-class researchers across a wide range of intellectual disciplines' (Bradley, 2008, p.6) and the provision of academic research career pathways. Universities UK noted a similar need across the UK and Europe, calling also for the development of career pathway exchanges between nations (UUK, 2008a).

Not only is there increasing demand for academics and researchers within Australia but also in Africa, China, India and other countries engaged in the rapid building of in-country higher education systems and research capacity (Altbach, 2009). Such pressures of globalisation and

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internationalisation are impacting on the nature and diversity of the student population undertaking postgraduate research degrees in Australian universities and in the UK (Universities of the United Kingdom, 2008b). Dimensions of diversity that might be encountered by supervisors include: the student being domestic or international (Homewood et al, 2010); full-time or part-time; having English as first, second, third or even fourth language; funded or self-funded; a recent undergraduate, professional, practitioner or retiree pursuing research for interest; on campus, distance and/or online (Albion & Erwee, 2011). Other research higher degree student differences that are evident to supervisors include a student's level of understanding of research processes or the research subject, as well as their individual positioning in regard to ontology, epistemology and axiology. The focus of the research might be based within a single discipline, trans-disciplinary or interdisciplinary; and the type of methodology from experimental to ethnographic. These variations, when coupled with a whole range of different personal characteristics such as motivation for doing the research, previous experience, level of independence, persistence and resilience, make the supervision of any student a somewhat unique enterprise.

Many staff working in post-1992 English university departments or in the 'new' universities in Australia originally began their tertiary work as teacher educators, professionals, paraprofessionals or 'practitioners' such as engineers, managers, accountants, artists and nurses. Now working in a university, these staff experiences create conflict around their professional identity and work priorities (LaRocco & Bruns, 2006). There is an increasing gap between the activities necessary to prepare professionals in line with regulatory body and government requirements, and the emphasis of the 'university' on research and studies as a discipline or area of knowledge. This is not a new phenomenon but, as noted, those working in these universities are experiencing more diversification in the activities expected of them (Blass et al., 2011). In this context, effective ways of developing the practices of research supervisors new to a research culture can be critical.

Accountability and review processes have also targeted postgraduate education and training, Australian universities receive a substantially funded completion bonus in the RTS funding process. Thus there are pressures on universities and academic staff to enhance completion rates and improve efficiencies within the sector. Research education, training and development is promoted through development of postdoctoral research roles and as research academics. Given these drivers for developing and improving supervisory practices, there has been a rapid increase in both research and policy development over the last fifteen years, for example, Kemp (1999) deals with research training, including that of research higher degree supervisors. Similarly, there has been a rapid growth of research into the experience of supervision and support of higher degree students (Hammond et al, 2010; Bruce et al, 2009). That is, supervisory practices of academics are under the spotlight. As a result, many institutions now have mandatory requirements, as well as voluntary programs, for the development of research higher degree supervisors.

The development of research supervisors is a relatively new area for research study and there is little evidence of how effective particular approaches might be. Manathunga (2005) describes a development program for research supervisors based on the idea of compassionate rigour. This describes a series of pedagogical strategies used by research supervisors to support the successful completion of postgraduate research such as teaching strategies like modelling, scaffolding, mentoring and coaching and moving the student towards independence and building confidence. In the pursuit of 'rigour' the research supervisor provides feedback on

conceptualisation, draft thesis chapters and career development. Such ‘strategies’ were introduced by experts through workshops and other activities. The evaluation of this program suggested that it was well received by both experienced and novice research supervisors.

Building on such evidence in developing new approaches to supervisor development is important but, as Manathunga argued, more research is needed ‘in order to develop a new vision of (supervisor) educational development, a great deal of research, questioning and theorising needs to be done. Further research is required to investigate effective, sensitive ways of exploring this “dirty terrain” (Grant, 2001)’ (Manathunga, 2005, p.26).

There is still little research that closely examines the development of research supervisory practices. This paper argues that it is critical to make explicit the evidence base for designing any new approaches to supervisor development. This argument is based on an initiative at a regional university in Australia to improve research supervision practices and an emerging conceptual framework for planning, implementation and research into the impact of such programs on practice and the development of theory.

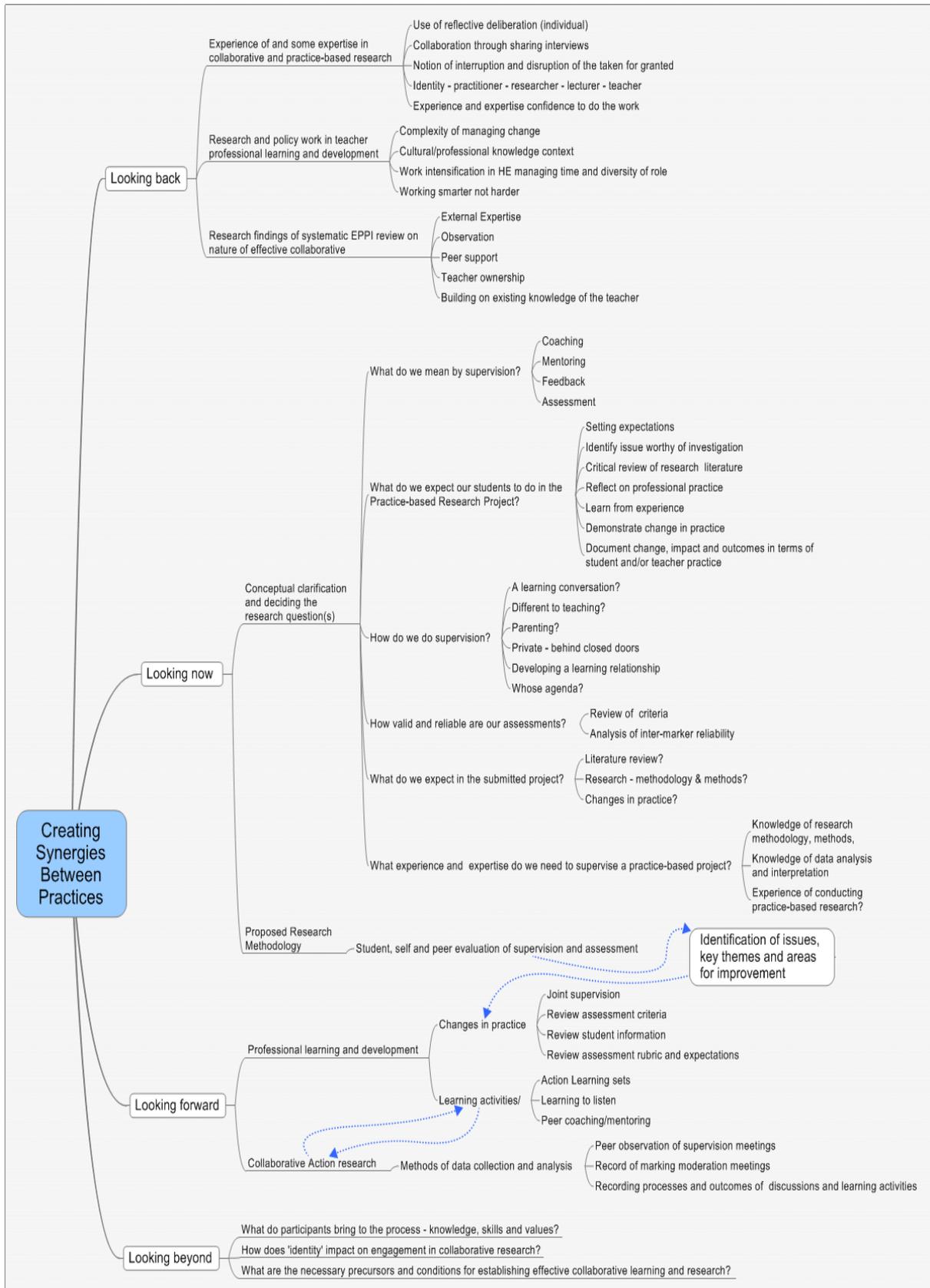
Making the tacit explicit: opening the door on the design, implementation and outcomes of the research supervision workshops

A number of research projects have contributed to the evidence base used in developing these workshops. These include a collaborative action research project, an auto-ethnographic study and research effectiveness of professional development approaches in education. These projects provided the evidence base underpinning the design principles for the learning experience developed for research supervisors to make tacit practices explicit. The assumption is that by making such practices explicit they can be questioned, reflected on and changed. As argued earlier, it is imperative to change research higher degree supervisory practices to take account of differences in students, the supervisor expertise and the context of research and higher degree supervision. The impact of the workshops as a mechanism for making the tacit explicit in research higher degree supervision practice is then further explored. The provenance, authenticity and relevance of this approach to supporting professional learning generally and in particular to research supervisor development are now elaborated with reference to three sources of evidence that informed the design of the workshops.

Phase 1: opening the door on the evidence to support the development of the research supervision workshops

The most significant influences on developing the workshops later described were two collaborative research projects on research supervision undertaken in the UK whilst working at an entrepreneurial, future-focussed university during 2008 and 2009. These experiences developed an understanding of the challenges in building both research capacity and also in developing and improving research higher degree supervision. These projects investigated a collaborative and practice-based research project with new masters’ program tutors working for the first time in a research higher degree and in supervisory roles (Jasman, 2009); and an auto-ethnographic study of my own supervision practices in a collaborative project documenting the practices of research supervisors working within a cohort EdD program (Blass, Jasman and Levy, 2012).

Figure 1: Creating synergies: a conceptual framework for policy development, building research capacity, the improvement of practice and outcomes for students.



A third research project undertaken by the Centre for the Use of Research in Education and Evaluation (CUREE) using review principles formulated by the Evidence for Policy and Practice Information Centre (EPPI-Centre) at the Institute of Education, University of London group involved the systematic review of research into the effectiveness of collaborative professional development because it provided further evidence on the best way to create the supervision workshops.

The findings from the first research project are documented in Figure 1. This conceptual framework was developed from a brain-storming session of the issues raised by masters' program tutors working for the first time in supervisory roles.

As can be seen from the conceptual framework arising from the first research project, two major strands contributed to understanding of the processes of building both research capacity and expertise in the supervision of research higher degree students (in this case Masters students). These included the two subsets of 'Looking Back', including:

- experience of and some expertise in collaborative and practice-based research, including the use of reflective deliberation (individual), collaboration through sharing interviews, interruption and/or disruption of the taken for granted, identity practitioner/researcher and confidence in doing the work of supervision;
- research findings for the systematic EPPI review on the nature of effective collaborative professional development, including external expertise, observation and peer support, ownership and building on the existing knowledge base.

The second project contributing to the design of the workshops involved self-study: an auto-ethnographic approach 'locating the researcher in the research' (du Preez, 2008, p. 509) by its use of 'personal narrative' and 'reflective practice'. This process provides others with an insight into critical reflective practice, allowing them to do the same process, using a different filter from their usual one (Campbell, Gibson & Gramlich, 2005). One of the key data collection strategies in auto-ethnography is to construct narratives of practices. For example, the following narrative, constructed in 2009, was part of an investigation into supervising practice-based doctoral research students (Blass, Jasman and Levy, 2012)

My approach to supervision is coloured by my experience of being supervised but also my personal history in becoming a 'practice-based researcher'. I started as a pseudo-scientist, a biologist who completed a modular science degree. The courses I took in my first year included computer programming, physics for biologists (including thermodynamics), organic chemistry and the study of fungi, principles of ecology—very eclectic and more importantly using very different approaches to the collection and analysis of data, and theory development. I also completed a literature based research project into amphibian metamorphosis as well as units on endocrinology and marine biology. Again the thinking, theory and research strategies varied between these modules.

I learnt to appreciate and understand systems—ecological habitats and microhabitats (the importance of context), feedback loops and homeostatic

mechanisms (how factors interact and regulate a system) and the unpredictability of experimental research where despite repeating an experiment twenty times we could not reproduce anything approaching the expected results and still have no idea why?!

I learnt a bit about doing research before I became a researcher, in my PGCE year I trained as an observer watching teachers and pupils in classrooms in a study of a radical 14-18 community college in Leicestershire—I worked with other students collecting data. I was also involved in the analysis—the team had training and weekly meetings to share their experience (and) issues that arose in data collection. A friend and I wrote this up for publication. There was little ‘supervision’ of the process, we did what we were asked, but were able to use the data—so I suppose supervision involves a relationship between the parties that recognises that both have differential knowledge, investment in the outcomes and power to determine what and how the research happens.

My own experience of being supervised in the PhD was very different from what I thought it would and should be, although it seems to have worked for me in the end. I was supervised by someone who had a lot of research experience gained through working in a team with others. They completed a Masters, but no doctorate. I worked as a member of the research team, undertaking a strand of work on assessment, in this context what was important were regular team discussions rather than one-to-one. I had very little educational knowledge but was comfortable with ‘researching’ from a scientific perspective.

Reading ‘Zen and the Art of Motor cycle Maintenance’ at the start of the research made me challenge my assumptions about research paradigms, methodology and hence research processes rather than knowing about the field of research. Hence I was challenged both in terms of my knowledge and in relation to what constituted research and finally in terms of my ownership of the project. Because of my experiences and the challenge of finding a ‘research’ identity I think the things that I value most and which therefore seem to impact on how I supervise research students include:

- *Being clear about the research question(s)*
- *Helping students avoid procrastination*
- *Ensuring the doctorate is owned – not doing it for someone else—again linking back to owning the question*
- *Focus on trying to alert about the nature of the process, tactics and strategies to make it easier to complete*
- *Increasingly worrying about the content of the (‘taught’ element of) EdD, finding points of relevance to a mixed cohort*
- *Offering challenge and support*
- *Reflecting what they are saying back to them to ensure understanding—on their part and my own.*

Another evidence base used was the systematic review of effective sustained collaborative continuing professional development (Cordingley, Bell, Rundell, & Evans, 2003). The following characteristics emerged:

'External expertise ...Many also stressed the importance of mutual respect and that professional learning was a shared process involving 'separate but complementary bodies of knowledge'.

'Observation and feedback featured in nine of the studies...One study comparing collaboration with and without observation found few gains where observation was omitted.'

'Peer support...cross fertilisation of ideas and shared activities helped to reduce the load on individuals while simultaneously enhancing the productivity of the group...'

'Teacher ownership...projects often resulted from the genuine interest of teachers to explore a 'burning issue' or develop specific expertise.

'Building on teachers' existing knowledge.. colleagues or consultants...ensure(d) that teacher learning was targeted at the needs and interests of individuals.'

These five characteristics of effective continuing professional development clearly reflect similar features of the collaborative research approach described earlier. The evidence from these studies suggests that using these types of approach can promote greater alignment between research and professional development processes to support the development of expertise for research supervision through making the tacit explicit?

Phase 2: Development of the research supervision workshops

Details of the supervisory workshops are provided here so that the reader can refer to these when considering the conceptual, theoretical, research and experiential evidence underpinning the approach outlined in this paper. At the university in question the research supervisor development program is currently comprised of three mandatory research workshops: the first on policy and procedures is presented by staff within the Research office, the remaining two workshops focus on developing positive relationships with research higher degree students and supporting thesis writing. The latter two workshops were trialled with a small group of supervisors in late 2010 and the mandatory program was delivered on several occasions at different campuses of the university during 2011. It is continuing in 2012 with new staff being inducted into the processes of delivery developed and trialled in 2011. Details of each supervisory workshop are given in Tables 1 and 2.

Table 1: Developing Positive Relationships in Doctoral supervision**By the end of this session you will have:**

- Made explicit your assumptions about effective supervisory relationships
- Developed a set of principles to guide your supervisory practices and build positive relationships.

Activity: Researching our own practice

Form into a group of three – one to be the interviewer, one to be the interviewee, one to be the note-taker. The notes provide a record of the interview for the person who is being interviewed. **The interviewer manages the interview asking the following key questions:**

What support did you need and want from your doctoral supervisor(s)?

Describe this for the following stages of your doctoral process:

- getting to confirmation or your working proposal;
- developing the research;
- data collection, analysis and interpretation; and
- writing up the thesis.

What strengths do you bring to the supervision of your students?

You might reflect on the particular ways you

- begin a new supervisory relationship
- support the student in the early stages of the relationship
- work with the student as s/he commences data collection etc. and
- through the writing up process.

You have 30 minutes to complete this interview. Once complete the roles change with the scribe taking the role of the interviewer, the interviewer the role of the interviewee and the interviewee taking the role of the scribe.

Pedagogical conversation – what are the principles for positive supervisory relationships?

Table 2: Research supervisors' thesis writing workshop**By the end of this session you will have:**

- Made explicit the assumptions you hold and how you go about supervising writing within the thesis, particularly supporting the student to complete.
- Developed a set of principles to guide your supervisory practices and support thesis writing to completion.

Activity: Understanding our own practices and assumptions

Form into a group of three and assign roles as interviewer, interviewee, and note-taker. You will each have a turn in each role. The interviewer manages the 'interview' asking the following key questions:

What support did you need and want from your doctoral supervisor(s)?

Describe this for the following stages of your thesis writing:

- getting to confirmation of your working proposal;
- writing the literature review;
- writing up the data, analysis and interpretation; and
- constructing the final thesis document for submission - format, chapters, content etc.

You have **20 minutes** to complete each interview. We will then discuss in the large group.

It is important that the note-taker provides a detailed record to the interviewee and does not engage in the conversation.

Pedagogical conversation: can we identify the principles for supporting students writing and completing their thesis and on which to base our supervisory practices?

Phase 3: Implementation of the research supervision workshops

The University Research Committee recommended that all academic staff undertaking research supervision for both masters and doctoral, for example, PhD, EdD, DBA, DPsysc, must complete three workshops in order to continue supervising research students. The lead time for completing the workshops was 2 years

Phase 4: Outcomes of the research supervision workshops

Clarification of design principles

In the workshop itself the participants commented on the design features, including:

- starting from the experience of the research supervisor (Lee, 2008)
- using a process to ensure that each person can tell his or her story (Clandinin, 2007a, 2007b),
- structuring the narrative through different interview questions to help make explicit the experience of being supervised and being a supervisor (tacit knowledge), (Eraut, 2000)
- keeping a record of the main discussion points for the ‘interviewee’
- expecting that a ‘pedagogical conversation’ based on the details of individual narratives and experience enables collaboration and learning from experience to be explicit and aid reflection on the personal narrative
- working from small to a larger groups, to build trust and confidence
- recognising that everyone has something to offer wherever they are at in their experience of supervision (as student or as supervisor).

Outcomes: participants’ insights

A preliminary analysis of the features emerging from the pedagogical conversations suggests that the following principles apply to establishing effective supervisory relationship and supporting the student to completion.

- Expectations are made clear at the start of the supervisory relationship—both for the student and for the supervisor. These expectations may consider frequency of meetings, time taken for feedback, availability, mechanics of reviewing writing and other activities.
- The supervisory relationship that is developed is particular to the individuals involved. The relationship is unique and will change as the research progresses.
- The supervisor modifies their approach, in some ways, to meet student preferences.
- Effective communication is essential to develop an effective supervisory relationship.
- The supervisor’s personal understanding about the discipline and the nature of research are also critical to how supervision is practised (Lee, 2008).
- Research student supervision is developmental, moving from dependence to independence.
- The research is owned by the student.
- The supervisor is confident in their expertise and that they believe they can contribute to the development of the research and the postgraduate student as a researcher.

These features align somewhat to those found in a study on postgraduate student views on effective supervisory relationships. (Zuber-Skerritt & Roche, 2004) which include:

- communication in the supervision relationship between the supervisor and postgraduate student;
 - positive reputation;
 - personal attributes and style;
 - nurturing attitude; and
 - knowledge and experience.
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However the main outcome for participants was in recognising the range of diverse factors relating to the student, supervisor and the nature of the research project that impacted on postgraduate research supervision and the need to be aware of these factors when considering a particular approach to supervision. Some small changes in practice have been reported, for example, that different styles of supervision are being used to meet different student needs. This indicates that some supervisors are at least considering alternative approaches to supervision as a result of their experience.

Outcomes: translation of principles into practice

Outcomes noted by an observer of the workshop focussing on developing positive relationships aligned closely with the principles described above and highlighted that:

- *....these workshops engaged experienced academics as well as those new to research higher degree supervision in pedagogical conversations;*
- *by challenging them to think back to their own experience when they were doctoral students themselves led to productive outcomes.....*
- *By encouraging participants to research their practice they began to examine the values, attitudes and assumptions, which they bring to the supervisory relationship.....*
- *describing the strengths which they bring to the supervisory relationship, ...assisted them to articulate some of the principles they use for determining how they develop positive relationships with research candidates.*
- *By the end of the session participants had developed a set of principles to guide their supervisory practices and build positive relationships.*

One outcome noted from this first trial of the workshops is that all supervisors attending, irrespective of their experience, participated in the discussions. Although several very experienced supervisors were initially sceptical about the benefit accruing from the workshop, all commented on completion of the pedagogical conversation that they had welcomed the opportunity to share others' experiences and also the chance to reflect on their own experience both as a student and as a supervisor. As noted by the observer:

This process is powerful because the reflective act of exchanging anecdotes with others in a public forum crystallizes our assumptions about effective supervisory relationships. The power of making the tacit explicit in doctoral pedagogy or research education development is an approach which will assist supervisors in creating the context for encouraging candidates to do their research effectively...

Although there has been no systematic evaluation data collected following the first round of workshops, the second set of workshops will form part of an ongoing ALTC project to audit, develop and evaluate ways of supporting and improving research supervision practices at this university and others. However, this supervisory practice is still from 'behind closed doors'

where no-one other than the research student or a co-supervisor can know about the supervisory approach. The process has allowed an essentially private activity to be shared in a non-threatening way through reflection on the experience of being supervised and the use of that understanding to reflect on the tacit knowledge and assumptions about supervision that underpin our practices. By interrupting and disrupting these assumptions change can (and does) happen (Grundy et al, 1999).

CONCLUSION

The next stage in the development of these processes is to conduct a more systematic evaluation, and also to research over time the impact (if any) that is sustained in supervisory practices by those who have experienced these workshops. In addition, there are some further questions that need to be addressed when these mandatory workshops are delivered by others. For example, can others achieve the same or outcomes, are they independent of the style, knowledge and expertise of the presenter? Does this approach work with other areas of research supervisory practice?

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