

Redefining our experiences of research through the integration of multiple perspectives for the development of postgraduate research

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Abstract

This paper integrates different supervisory models with a view to proposing a framework that will foster a supportive intellectual environment for the supervisor-student relationship. To provide conceptual background to the discussion, the paper reviews some of the existing models for postgraduate research supervision found in the literature. The paper juxtaposes these models against the experience that we, the authors, have encountered in our supervision of student research, as well as from interviews that we conducted with other supervisors.

We argue that although the existing literature sets out multiple models of research supervision, our experience has been that they have been rather prescriptive and apply to specific situations. Here we redefine our experiences through our perception of our disciplinary environment, our perception of the university environment, and our student's perspective. Unfortunately, little attention is paid in the literature to the perspective of the student in the supervision process. We argue that to foster an effective environment in the supervision of student research, there is a need to be aware of the variation in our students' understanding of the research situation, their educational and cultural backgrounds, their expectations of the outcomes of their study and many other factors. Our proposed framework acknowledges that postgraduate supervision is a symbiotic process where balance is integral to the development of the student as researcher.

Introduction

This paper has evolved from a collaborative project aimed at developing the capacity of researchers towards research mentoring through the supervisory context. The current political and university climate demands that postgraduate research students receive a quality research education situated within a supportive intellectual environment, and that these situations will encourage the timely completion of research degrees. Macquarie University has responded to this by creating a structured supervisor development program where participants are expected to actively critique their own assumptions about research training against a body of research literature and inter-workshop activities. The participants' disciplinary orientations to research, the institutions' administrative and bureaucratic structures, the Research Office orientations, and the research students' expectations, join together to form the basis of this paper.

Harman (2002) suggests that the quality of supervision, the suitability of research topic, the intellectual environment of the department, financial support and access to equipment, are important

predictors of student success. The results from that national survey – conducted in 1990 - indicate that the quality of a research student's learning experience is predicated on their perception of quality supervision. We find that the PREQ data for 2001 suggests that completed students at Macquarie University would prefer a more intellectually stimulating environment where they can feel a part of an active research culture and that this involvement in a research culture is of more importance than the quality of supervision. Students indicated that the largest impediment to their research studies were the *physical* resources. Particular areas of our university, notably those that are part of larger, funded, research centres, are able to easily provide the needed space, computing and photocopying facilities. Other, smaller, research groups can often only supply those physical resources on a 'hot-desking' rotation. However, these physical resources are not valued as much in comparison to an active seminar series, cross-disciplinary research meetings, regular (and meaningful) interactions with supervisors, and contact with other eminent scholars. Internal evaluations of research students' experience at Macquarie University show a similar range of needs. Our current students acknowledge that the most important component of their research preparation is access to other researchers – within a supportive research environment – and that access to appropriate physical resources is important. The national and internal evaluations show that as research mentors, we are more likely to succeed if we focus our attention on the development of supportive intellectual environments and back this up with adequate resources. In this paper – we plan to critique our students' expectations of their research, with our own disciplinary contexts and with other research literatures. Part of this critique is an examination of various models of supervision (for instance Gurr, 2001; Styles and Radloff, 2001) which will show how various research orientations are privileged, and then expose the models constructed at our own series of workshops. We don't suggest that our models are perfect, rather we suggest that our models are appropriate for our context and challenge other research mentors to critique and develop their own.

The quality of research supervision is a notoriously difficult area to explore. As Delamont *et al* (1998) we are often restricted to self report on the experience of supervising and being supervised, and that it is not possible to confirm these self-reports through observations (p.170). Here we examine different models (both pictorial and descriptive) as a means of examining the discourse surrounding supervision. Models allow particular experiences, ideas or explanations to become focal, and the nature of a model is to highlight areas of relevance. Stables (2001) suggested that models of reality can be conceived of in multiple ways and indicates that what is *signified* is more important than the signifier. In his example in environmental education the sky was used as a means of communication. An analysis of young peoples experience of death, expressed through visual

media, showed that variation in conceptions (ways of thinking) of death were apparent (Wenestam, 1984). Similarly McKenzie *et al* (1998) demonstrated that variation in students' understanding of architecture were apparent in their summative cartooned images. Reid and Leigh (1999) explored dimensions of student's experience of learning in a group work situation using three dimensional images as a self-assessment. Here, we suggest that models can expose the complex nature of the creator's understanding of the topic.

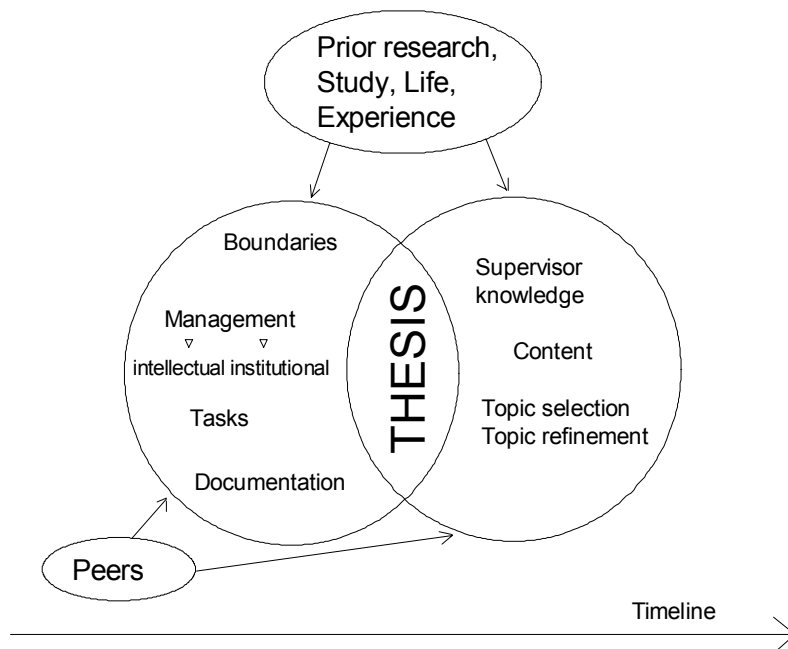
Models of Supervision

Our examination of existing models of supervision – many of which are exploratory – shows that research supervision can be constituted in a variety of ways.

A) The bureaucratic/pragmatist model. This model is familiar to all research students. It is often represented as a 'code of practice' and defines the processes that are required for completion of the research study. The research student and supervisor are components of a system which includes monitoring of work, behavioral standards, minimum research standards and expectations, and a focus on paperwork. There is usually little discussion of the manner in which the code supports research development, and they are usually a-contextual. (See our own Code of Practice as an example). This form of research support model is pragmatic. It enables the institution to affirm its goals of timely completion of research, quality management, and to provide some guidance for the development of departmental responsibilities.

B) The thesis model. In this model completion of the thesis is central. Indeed, one of the models created in our own forum exemplifies this model. Here the production of the thesis drives the research agenda. Fraser and Mathews (1999) recognise that there is an interplay between the 'expert' supervisor and the support role the supervisor plays. An expert is 'knowledgeable; specialist; teacher; influential; co-ordinator' (p.5). This form of model suggest that external forces (such as the supervisor) do something (such as organise) in order to 'support' the student in order to 'finish off'. Student and supervisor are both directed towards the completion of the research through production of the thesis and thus an extrinsic/technical approach is adopted. Our model (displayed below) shows the interplay between students' prior life, research and study experience as contributing to their PhD experience. The larger intersecting circles represent focal components for the student - what has to be *done* (the left circle) and sources of inspiration (the right circle). Our group also recognised the important component of peer support in the on-the-ground knowledge required to support the PhD process, and the intellectual support required for the development of

ideas. This model of ours, however, indicates that the thesis is the main outcome of the process. We found value in the development of this model – and the later one – as important reference points to deconstruct and reconstruct our understanding of our supervisory practices.

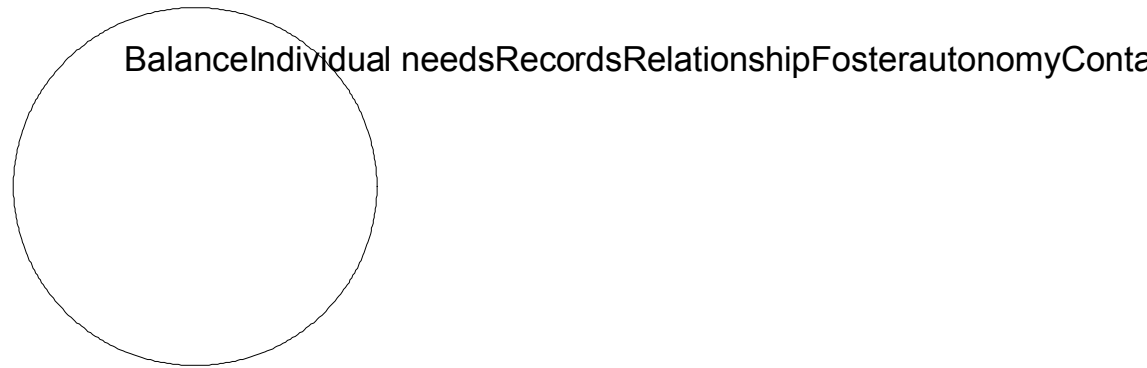


Model 1: The Centrality of the Thesis

C) *The disciplinary discourse model.* Some models of research supervision (such as Zhao, 2001) focus on the centrality of the research findings for knowledge based industries. This is different from the ‘thesis’ model as it places the construction of new knowledge at the centre of the engagement. This new knowledge is not necessarily confined to the obvious publishable outcomes, but recognises that one of the most important components is development in the field of discourse. Here, supervisor and student experience are components of the model in which the ‘knowledge conversion process’ is central (p.4). The participants’ background experience combine with industrial problems to form new ways of knowing, and this leads to the outputs of a new ‘researcher’, ‘completion of the research’ and ‘research products’ (p.5).

D) *The humanist model.* From another perspective participants in Delamont *et al*’s study demonstrate a ‘humanist’ model where personal and affective domains are central. Overwhelmingly the idea of ‘balance’ is seen as important. Styles and Radloff also recognised this centrality as they described the symbiotic and evolving nature of supervising and being supervised. One of our models also adopted this humanist perspective as the notion of ‘balance’ was intended to include the balance required to juggle workload and academic commitments, with personal domestic needs,

and with the important research student/ researcher relationships. Our diagram is not exhaustive – but indicative of the sorts of issues that need to be considered.



Ros

The supervisory approach related by one interviewee was very much centred on individual students and their abilities. She spoke from the position of having supervised a considerable number of PhDs undertaken by business, law or environmental policy students. She commented, in particular, about three different students who she had recently supervised. She said at the outset of their candidatures in relation to topic choice: one “had the topic worked out, fully knew what to do and needed confirmation that it was good”; another was interested in “a general area but needed help in defining boundaries”; and a third was involved in many months of “sitting around” reflecting on potential topics and “gradually developed a feel for what is required.” The interviewee expressed the conviction that the three paths of topic definition were satisfactory with the former two much more acceptable. She emphasised that set topics should not be defined for PhD students and she highlighted that fostering student independence is vital. She said “I’m a big believer that it’s their own PhD – they won’t be able to take it forward with too much hand holding.”

With regard to planning, the interviewee said that minimum contact and work expectation guidelines such as “meetings at least once per month, submission of regular drafts starting from the literature review, writing and presenting of conference papers” were conveyed by her initially. She also talked about practical planning at the project inception of the timeline and catering for requirements such as the “need to factor in when, and if, a student needs to do an overseas trip and applying for travel funding - the money to do it.” She said that her strategy for contact then allowed her to work with the students on “methodology and conceptual understanding” thereby giving her an understanding of a student’s ability to conduct the research and to integrate the findings. This helped her to personalise an approach to advising and working with a particular student.

The supervisor also said she finds students need feedback on planning and progress at progressive stages in their research: “reflecting on where they’ve been”. The interviewee said she evaluates her effectiveness as supervisor predominantly via direct student feedback. She said “an open communication role is needed to do this – student’s need to be able to say they want more feedback or if they have a need to gain more understanding about a topic.” This supervisor also acknowledged that “the test of effectiveness is not just one test” but viewed the annual written report as “an arm’s length mechanism” which gives students a chance “to express frustrations.” She reflected that “if the thesis fails or requires a major rewrite, then the supervisor is probably responsible” and said supervisors should be equipped to judge “whether a thesis meets examination requirements.”

The overall characteristics of the interviewee's supervisory approach were reflected in her statements given throughout the interview:

- “Treat the candidate as an individual.”
- “Try to get them to take control but make sure they are on track by overseeing their work and setting boundaries.”
- “Get them to start writing early – straight away almost.”
- “Set deadlines for tasks such as seminars and conference papers.”
- “Develop together...Expect the student to become an expert and to know more than you – there will be a ‘gradual weaning’ during the PhD.”

In summary, the aims of the interviewee's supervisory style were to assist students to become competent researchers and to foster good research organisation and independence. Her approach emphasised a collaborative student-centred PhD experience as well as having some elements of a hierarchical supervisor-student relationship (see Gurr (2001) for reflections on collaborative and hierarchical supervisory models. Her approach acknowledged the unique strengths and weaknesses and experience of differing students.

The interviewee reflected about PhD training that “the end goal is that the student will be in the position to lead others in the field.” However, Harman (2002) surveyed PhD students in Australian “Group of Eight” universities on career aspirations and found that only just over half of them intended to pursue careers in research institutions and that “between 45 and 55% of PhD students...like the idea of doing research in industry or a government department.” Enrolment in PhD degree programs is no longer strongly related to academic career goals.

The supervisor reflected that changes have been imposed on supervisory practices over the years in Australian universities and, in particular, PhD students have much more restricted time to develop as researchers and conduct their projects. She said “It's tougher for students now than in the past.” However, she did acknowledge that in parallel with the tighter timeframe imposed on students now that a more directed “hands on” approach to supervision is being practised currently with clearer expectations given. This is in contrast to the experiences related by many current mid-career academics with their own PhDs as having very little direct supervision (see Delamont *et al.* 1998). She said that the formal PhD research methods training provided in some parts of the university (in parallel to institutionally organised programs in universities in Australian and the United Kingdom (Delamont *et al.* 1998)), the essence of this directed approach, can be useful for many students but is not universally appropriate. She said “It can be too pedestrian for some.” This is in accord with

the findings of Delamont et al (1998) that “The more tightly framed arrangements...in contrast to the past create new tensions and dilemmas.”

Mio

In recent times, there has been a dramatic increase in the number and cultural diversity of our post-graduate student population. This has highlighted the need to pay attention to the cross-cultural issues that are likely to be encountered in the process of supervising post-graduate research students.

An interview was conducted with a supervisor from an Asian Studies department (in a Sydney – based University) to explore the dimensions of the challenges of supervising students from diverse cultural backgrounds. The supervisor (hereafter referred to as the “interviewee”) emphasized the need to be aware of the cultural diversity of post-students, in order to effectively evaluate their academic aptitude (in an English speaking country such as Australia) if effective supports are to be tailored to suit their individual circumstances.

The interviewee sees the supervisor’s primary responsibility as being one that supports the students’ academic development. To be effective in the process the supervisor ought to have a holistic understanding of the individual students’ personalities, ways of thinking, attitudes toward their research and their specific needs, in the early stage of their candidature. In making these assessments, supervisors should also acquaint themselves about matters such as the reason/significance of the research topic to the student, and the student’s background either cultural and/or circumstantial. This is particularly important in dealing with Asian students, who are generally dependent on their supervisors in various issues, starting with the choice and formulation of their topic. This is basically a cultural issue, as in Asia a hierarchy of supervisor-student relationship is treated as one of the structures in the instructional process. Most Asian students who pursue post-graduate study are likely regarded as ‘good students’ in their own educational environment where respect for the teachers’ perspective and knowledge are integral to the relationship. The impact of these cultural imperatives is that post-graduate students from Asian backgrounds are not used to respecting and developing their own ideas and arguments.

One of biggest dilemmas that the interviewee encountered in the supervisory role centered on the issue of providing positive reinforcement on matters relating to the student’s independence and confidence in the course of their research. Many Asian students, and even Australian local students although in lesser degree, often show the lack of independence and continuously seek the

supervisor's reassurance of their work. It is incumbent on the supervisor in these circumstances to nurture the student's confidence academically by encouraging them to think logically, to acquire sufficient knowledge in their fields of research and at the same time create a framework that provides them with their moral/psychological support. In the midst of all these, one should not lose sight of the cultural context in which the language issue should be addressed as most foreign students have problems not only with practical English proficiency, but also with the ways of thinking and presenting their arguments appropriately in an English academic environment.

The supervisor's challenge in this context is to establish a clear understanding on a mutual basis at the beginning of the supervisor-student relationship on matters relating to time line, communication, and monitoring the progress of the candidates' research. In addition, some basic guidance should be provided on research skills, methodologies and available supporting systems for language issues. My interviewee regarded face-to-face sessions supplemented by regular email and phone contact as vital in establishing and maintaining a full understanding of the student's ongoing situation. Reflecting on his personal experience as an MA research candidate who had to complete his thesis abroad, my interviewee was of the firm view that once an adequate level of understanding is established through face-to-face sessions (even via TV conferences), the good communications could be maintained through telecommunications, if necessary.

In order to provide effective support, my interviewee was of the view that the supervisor should have a substantial knowledge, although it need not be detailed, of the area of the student's research. This view might raise certain concerns, as there is a possibility that some supervisors (particularly, the subject expert) might be inclined to be domineering and intolerant. This concern can however be allayed if the process is seen as a function of the supervisors level of maturity and a reflection of his/her personal attitude toward supervision. An appropriate level of balance is the essential determinant in such situations. The supervisor's insight to the subject area enables him/her to provide adequate support to the student in formulating a sound foundation for their work, whilst confidently letting them to develop their own research of the topic.

My interviewee concluded by noting that once the significance of the parameters of the individual and cultural differences are determined, his primary focus then shifts to dealing with the challenging task of accommodating the individual students' needs in his attempt to encourage them to assert their academic independence.

Elizabeth

The interviewee that I approached has extensive experience as a supervisor at the MA and PhD levels in the area of modern languages. His philosophy as a supervisor has been guided by his perception of what constitutes a doctorate. In his view, a doctorate is a process that marks student's intellectual personal maturity, which is realized through the outcomes. To him therefore the doctorate "signifies depth knowledge of a specific topic involving extensive research and internal analysis of a personal opinion. It is characterized by an articulated and well argued presentation of a particular point of view both original and critical". Towards this end, he adopts a less interventionist approach in managing the supervisor-student relationship. This fosters the right conditions for the student's ideas to flourish.

In his view, the overriding consideration that should govern the supervisor-student relationship is the need to adopt a very flexible and balanced approach. "Usually I adjust myself to my student's individual intellectual and linguistic needs, whether their first language is English or one other than English". A well-balanced relationship throughout the process of writing the thesis helps the student to invent his/her own "language". He then went on to say that the word "balance" carried connotations of "a broad-line orientation where the student would be feel comfortable whilst at the same time being able to recognize his limits for action". He was of the firm view that an intellectual environment was an essential requirement for undertaking PhD research. To provide the necessary support he conducts "regular seminars and presentations, cross-disciplinary discussions within diverse fields" in order to provide students "a multiple orientations of the world". Feedback throughout the process of studying is the ultimate obligation of the supervisor, because it "extends the understanding of the topic studied and helps the student to become more critical and interpretive".

With the internationalisation of education supervisors have to develop an awareness of the needs of a diverse student body and the challenges that it poses. However, there are two groups of students in Australian universities:

- a) those that live in Australia but came from diverse backgrounds (including Anglo-Celtic),
and
- b) the international students".

In both cases, the supervisor ought to understand the linguistic competence of the individual student and determine their capacity to articulate their thoughts in writing. "Writing, in the very first stages of the theses, is a must" for this supervisor.

Individual problems that a supervisor could encounter in the process relate to “incomplete personal identity, or cultural identification”. An important part of the research experience requires an international student’s understanding of the difference in all dimensions –cultural, social, religious, and educational. It is incumbent on the supervisor to establish a mutual understanding of those differences right from the start of the supervisor-student relationship. “The differences between Australian and international students could be turned up into a creative, as well as dialectical process both intellectually and empirically; it would be at the end beneficial for both the student and the supervisor, as it would be keeping them in a constant state of self-redefinition, as human beings and academics”.

Integrations

Integrating our own experiences and that of our discipline orientations with the creation of supportive research environments poses tremendous challenges for the supervisor. This paper has examined two aspects of those challenges that we have had to grapple with in our role as supervisors. First, the challenges of dealing with cultural diversity; and second, how to foster conditions in which student autonomy in the research process would thrive without displacing the directions of their work and substituting them with our own ideas of how the PhD thesis should proceed. In the case of the latter, the debate has centred on a “hands on” supervisors approach as opposed to one that fosters student autonomy. Whilst these concerns represent two opposite ends of a spectrum, in striking a balance the difficulty faced by supervisors lies in determining the students level of dependency and the extent of help that they require. This issue has been addressed in the literature ; (Gurr, 2001; Delamont et al 1998, Styles and Radloff , 2001). However, we found out that this dichotomy increases the potential for conflict between student and supervisor where:

- there had been a long break between the candidate’s previous studies and the commencement of the PhD program. The tensions were heightened further where the student is set in his/her ways;
- the candidate’s work was in the supervisor’s area of expertise;
- the work involved was inter-disciplinary in nature; and
- the candidate was not familiar with research methodologies and the discourse of the field.

These matters directed our minds as supervisors to two fundamental questions that have been raised in the literature. These are:

- At what stage should there be active intervention by the supervisor?
- At what stage should the supervisor pull back, and let the student's work come to the forefront?

In linking our experience with the literature we noted that certain situations required an interventionist if the relationship was to be successfully carried out. These include:

- At the beginning of the candidate's program to clarify matters relating to the scope of the work, the research question and other preliminary matters. Even here, there is a need to guard against supplanting the candidates original ideas with our own.
- Where the candidate is not familiar with research methodologies or the subject discourse.
- *Delamont et al* deploy the concept of contrastive rhetoric to explore supervisor's accounts, comparing their own negative experiences as doctoral students with their practice as supervisors today. It was striking that most staff thought that they had been poorly supervised, and were motivated to do better themselves. The challenge in such cases was one of determining how to strike the balance between " the need to guide and structure doctoral work on the one hand, and the desire to preserve the doctoral student's autonomy on the other" (Delamont et al, at 159).
- Changes to funding policies, where funding is linked to successful completion within rigid time-limits.

We did find in our experience that these factors sometimes impacted on our role as supervisors.

To develop the postgraduate candidates confidence in the research process, there is a stage where the supervisor should pull back and let the student's work come to the forefront. Identifying this stage can be a bit tricky as it can be fraught with difficulties. (Gurr 2001) developed a model and a toolkit of the supervisory relationship to improve practice by encouraging a more proactive role for students. But as Gurr himself admits, this model has its limitations in certain contexts.

Our Responses

We found that one way of dealing with some of the problems is to get a co-supervisor who is not a subject expert to co-ordinate the supervision process. This minimises the inclination of the “subject expert” to dominate the students work. In this way, it reduces the possibility of tensions occurring in the supervisory relationship.

Another strategy we suggested was to establish on a regular basis a system of recording meetings, tasks to be done and feedback. By going over the paper trail that has been set in place, it gives a supervisor the opportunity to ascertain whether he/she is too interventionist in their dealings with the candidate.

We recognise that a research students’ candidacy needs to be supported through a series of intellectual and pedantic activities. A close balance needs to be maintained between the intellectual and practical needs of the student, the demands of disciplinary discourse and instrumental maintenance, the intellectual and social support of academic colleagues (peers and supervisors), and systemic and departmental practices.

Supporting the improvement of research environments

We would suggest that students’ research experiences need to be supported in a variety of ways. Here we suggest a few – many of which are already being addressed - that have the potential to support students through to ‘timely-completion’ with a research outcome of the development of individual research capacity, new knowledge in a specific discipline, a thesis, and an enhancement in the quality of the academy.

- Pre-PhD Courses: Candidates should be required to do a year’s research (or equivalent), understand the processes of doing it, and then do a research methodology programme before enrolling in the PhD. Many institutions provide research certificates that support candidates prior to entry into their substantive program, still others integrate such programs within the time of candidacy. The focus of the programs – whichever variety – needs to be on the appropriate support required by individual candidates.
- Devise or formulate a test kit to ascertain whether the student is comfortable with our level of supervision. It is essential that research be seen as a joint exercise thus the student’s perception of quality and support needs to be directly addressed. Research students are often limited in their capacity to proactively change or develop their research situations, so systemic institutional support needs to be provided.

- Supervision should not be left to PhD holders only. There is a potential for reaping multiple dividends in a system that encourages particularly skilled staff to supervise as well. The benefits include:
 - Sharpening the research skills of the staff members involved in the process;
 - Making them think more about enrolling in a PhD themselves; and
 - The familiarity that they acquire in the supervision process becomes a valuable asset when they proceed to enroll in a PhD as it increases the possibility of shortening their completion date. The other dividend to the institution is that it ends up earning additional research points.

Supervision and being supervised are often perceived as extremely difficult and lonely tasks. In this paper we have described how a group of supervisors have used literature, their own research on supervision, a series of supportive workshops and the practical development of research models to critique and develop their, and their departments', understanding of practice. It is essential that research supervision become an actively talked about, researched and reported activity. We advocate that research activity – especially the student/researcher nexus – be as transparent as possible in order to foster quality research and quality in personal approaches to research.

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