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Professional development for research supervisors

Peter Miller, *Southern Cross University*
Chapter 4
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Peter Miller

Abstract

There are no prescriptions for how a doctoral research project should be supervised and each supervisor will bring to the project their own experience and ways of doing things. Therefore, the process may never be systematically described or prescribed. Research supervisors often adopt the style of supervision of the supervisor that supervised their own doctoral research project if the experience was a good one. Where their own doctoral experience and relationship with their supervisor was not effective and beneficial, often supervisors learn from this experience and endeavour not to do the things their own ineffective supervisor did with them. In addition to these experiences, supervisors have natural and preferred ways of supervising research projects in much the same way that leaders or managers in organisations bring to their roles their own values, behaviours and styles of management (Dubrin, Dalglish & Miller 2006). Given these differences, the design and development of a professional development program for doctoral supervisors is an exciting challenge. It is further complicated when the professional development program needs to be appropriate and suitable for supervisors from diverse disciplinary areas. This is the case for the International Centre for Professional Doctorates (ICPD) supervisors who come from a range of backgrounds such as business and management, education and the social sciences. This chapter explores the design, development and delivery of an on-line professional development program for doctoral research supervisors who are supervising research theses for candidates under the responsibility of the ICPD. The chapter briefly outlines the curriculum of the program, the method of its development and provides some details on evaluating the program.

Key words
HDR supervisor, supervisor training, professional development


Introduction and context

The ICPD is responsible for the administration of professional doctorates across SCU. At present, three professional doctorates are approved:

- Doctor of Business Administration (DBA)
- Doctor of Education (EdD)
- Doctor of Indigenous Philosophies (DIP)
The ICPD is oversighted by a sub-committee of Academic Board known as the Professional Doctorate Committee (PDC), equivalent to the Higher Degrees Committee (HDC) of the Research and Research Training Committee which is itself a sub-committee of the Academic Board. The HDC has responsibility for research masters and Doctor of Philosophy programs across SCU. The PDC includes members of the HDC, and oversights the development and quality control of professional doctorates for SCU and reports on a regular basis to the Academic Board.

A generic program structure is utilised for all professional doctorates programs. The structure consists of 24 units of study. Sixteen of the 24 units are the thesis component with an additional two units also involving preliminary work for the thesis. The generic structure for all programs is classified by the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) as a doctoral research degree as the thesis component is a minimum of 66 percent of the program.

The policy on the supervision of doctoral candidates is that all supervisors must meet the following criteria:

- have a doctoral qualification
- be experienced in research and/or in the supervision of research higher degrees
- have relevant knowledge and expertise for the research project
- have sufficient time and access to adequate resources to supervise the research project.

All supervisors must apply to be appointed to the professional doctorate supervisor register and undergo a rigorous review to ensure that they are experienced researchers capable of undertaking doctoral supervisory roles.

There are no prescriptions for how a doctoral research project should be supervised and each supervisor will bring to the project their own experience and ways of doing things. Therefore, the process will never be systematically described or prescribed. Research supervisors often adopt the style of supervision of the supervisor that supervised their own doctoral research project if the experience was a good one. Where their own doctoral experience and relationship with their supervisor was not effective and beneficial, often supervisors learn from this experience and endeavour not to do the things their own ineffective supervisor did to them.

In addition to these experiences, supervisors have natural and preferred ways of supervising research projects in much the same way that leaders or managers in organisations bring to their roles their own values, behaviours and styles of management (Dubrin, Dalglish & Miller 2006).

Given these differences, the design and development of a professional development program for doctoral supervisors is an exciting challenge. It is further complicated when the professional development program needs to be appropriate and suitable for supervisors from diverse disciplinary areas and different national cultures. Such diversity
is the case for supervisors in the ICPD where the supervisors come from diverse backgrounds such as business and management, education and the social sciences.

In 2007, the then Director of the DBA program, Associate Professor Peter Miller commissioned and participated in developing a supervisor professional development program. The wide ranging campuses of SCU and network of overseas partners necessitated an online program to enable Higher Degree Research (HDR) supervisors in a number of national and overseas locations to participate. The program needed to be relevant for HDR supervisors from all disciplines. The cost of underwriting this project was provided by Professor Peter Baverstock from SCU’s Graduate Research College. The objectives of the HDR supervisor program were to:

1. Assist supervisors to examine the nature of supervision and to discuss what might constitute effective research supervision
2. Assist supervisors to articulate and reflect on their supervisory practice in a collegial environment
3. Expose supervisors to different models of supervisory practice
4. Assist supervisors to develop a critical understanding of the teaching and learning processes involved in effective supervision
5. Engage supervisors in a reflective process to challenge and extend their understanding of effective supervision
6. Expose supervisors to the resources available outside the SCU environment to assist effective supervisory practice.

There has been considerable discussion about supervision of HDR in the higher education literature for the past twenty years. In this context it has been acknowledged that professional development for HDR supervisors improves the completion rate of candidates (Conrad 1996; Manathunga 2005; Pearson & Brew 2002; Zuber-Skerritt 1994). This focus on completion has been accentuated by federal government interventions. Minister Kemp’s (1999) funding formulae for higher degree research, essentially providing funding only on the completion of the degree, drew universities attention to factors that enhanced completion and emphasised the importance of professional development for HDR supervisors. Minister Nelson’s (2002) subsequent changes to funding formulae reinforced the already established demand for professional development for research supervisors and added a new agenda of research training for research students. This second wave’s emphasis on completions accentuated the importance of research training curriculum and also drew attention to training curriculum matters for HDR supervision training.

When universities acknowledged the importance of professional development programs for research supervisors they initially offered a range of face-to-face workshops (Conrad 1996; Zuber-Skerritt 1994). More recently, educational computer technology development in higher education has enabled the emergence of web-based resources and on-line programs for research supervisor professional development. The fIRST (for Improving Research Supervision and Training) resource, developed by the Australian
Technology Network universities in 2002 was an example of one such resource. It offered a number of on-line activities to help research supervisors improve their practice.

This chapter describes the development of an on-line HDR supervisor professional development program which attempted to familiarise participants with existing on-line HDR supervision resources, notably fIRST, and to advance participants in critical reflection of their HDR supervision practices by presenting them with multiple constructs for good research supervision.

**HDR supervision training curriculum**

The Nelson (2002) federal initiatives drew attention to the importance of research training curricula. This focus also accentuated the importance of curricula for HDR supervisor professional development. Manathunga (2005) points out that prior to the pressure on improved supervision through the federal government policy initiatives, research supervisors learnt about supervision through their own experiences of being supervised. As universities began offering workshops for HDR supervisors, the content addressed such issues as matching of supervisors and prospective students, ensuring there are regular meetings between student and supervisor and bringing together groups of students where information can be simultaneously provided for them (Zuber-Skerritt 1994).

More recently, discussions about appropriate professional development for HDR supervisors have narrowed to explore the specific value of reflective practice and communities of practice in the professional development of HDR Supervisors (Pearson & Brew 2002).

Whether explicitly or implied, professional development in HDR supervision has been underpinned by exploring the question: what is good research supervision? Answering this question is confounded by it being not a single question but a nested set of questions asking:

- What is good research?
- What is supervision?
- What is research?

The *What is Research?* question has been amply answered by others (for example Stenhouse 1981) revealing the history of debate associated with different paradigms impacting on individual views of research. This debate establishes the position that the term research represents disputed territory.

The *What is Supervision?* question is implicit in most of the literature about HDR supervision and gives rise to multiple perspectives. Manathunga (2005) describes one area of dissonance in the literature which distinguishes between administrative and pedagogical ways of investigating HDR supervision. This dissonance can be seen as answering the *What is Supervision?* question with different constructs of good
supervision. In other words, good supervision may be seen from a teaching perspective or from a project management perspective.

Exploring all three questions emphasises the importance of adopting a curriculum approach that accommodates the multiple constructs of this topic, to recognise that there are no single answers but responses informed by many paradigms of research and research supervision that underpin these practices.

A professional development program on higher degree research supervision

Pearson and Brew (2002) advocated reflection of practice situated in the practitioner’s (research supervisor’s) own experiences. This suggested a philosophy of the reflective practitioner (Dewey 1933; Schon 1983) indicating that when professionals reflect on their practice this enables them to identify ways in which their practice can be improved.

Manathunga (2005) advocated building on practitioner prior knowledge and understanding to open up the private space of research practice. This initially aligns with a philosophy of practitioner investigation (Anderson & Herr 1999; McNiff 2002) that shows that when reflective practice is undertaken in a rigorous and explicit way it helps practitioners to articulate to themselves and others the nature of their professional practice. In articulating their practice to themselves, professionals are then more open to investigating and changing them. It also implies a philosophy of community of practice (Wenger 1998; Wenger & Snyder 2000) where professionals meet for the purpose of sharing and making explicit their professional practice, enabling each of them to improve their personal practice.

Communities of practice (Wenger & Snyder 2000) are, as the phrase suggests, a gathering of practitioners with intent to share practice and ideas. This educational approach creates an opportunity for practitioners (in this case research supervisors) to impart their experiences of being practitioners. This initially helps to articulate the nature of that practice and makes explicit what is often tacit. It also helps a practitioner to become self-aware, a step towards essential critical reflection on practice.

The multiple construct nature of research supervision begged for a professional development program that exposed participants to the range of ways of thinking about good research supervision, helped them to identify which of the ways related to their own views of good research and good research supervision and helped them develop critical reflection.

Manathunga’s (2005) distinction between administrative models of supervision and pedagogical models poses one set of constructs for exploring good research supervision. The pedagogical frameworks for practicing HDR supervision have been in existence since very early writing (Connell 1985) and have continued in recent times (Green 2005; Pearson & Brew 2002). The increasing number of examples of administrative models was in Vilkinas (2002) opinion, a response to the ever growing demands for thesis completion.
While the above two constructs of HDR supervision are well documented and understood in the literature, two emerging constructs of HDR supervision also require investigation. The two are supervision as epistemology and supervision as relationship.

**Supervision as epistemology**

Most definitions of research and research degrees include reference to a contribution to knowledge. The implication is that research generically and research degrees specifically lead to a contribution to knowledge. This prerequisite in the definition then provides the basis for another construct of good research supervision in that good supervision enables a research student to make a contribution to knowledge. The nature of this construct, while appearing straightforward, is confounded by the disputable nature of what constitutes a contribution to knowledge. This dispute is in some ways being addressed by the emergence of research quality frameworks in the UK and Australia that have the potential to influence what constitutes a contribution to knowledge, by providing funding for the types of research listed in the framework, with associated implications of quality.

**Supervision as relationship**

Research students’ stories consistently point to the importance of the relationship with their supervisor. Salmon (1992) in her study based on stories from ten of her students pointed to the scientific traditions of research and how this generated often distant and product-driven supervision. In contrast she advocated a process-driven approach based on a relationship that had mutual sympathy and trust. Vilkinas (2005), in a similar study drawing on the stories of students she had supervised, highlighted the students’ desire that the supervisor have personal qualities such as faith in the student, reliability and being a risk taker.

**A curriculum for research supervision**

Combining the two well known constructs of research supervision: HDR supervision as teaching (pedagogy) and HDR supervision as administration (project management) with the two emerging constructs: HDR supervision as a contribution to knowledge and HDR supervision as maintaining good relationships, offers a framework of four constructs of good HDR supervision. These are:

- good pedagogy
- good administration and project management
- good contribution to knowledge
- good relationships.

These construct parallel Green’s (2005) paper on the future of HDR supervisor thinking. The four constructs have some face validity and therefore would be recognisable to supervisors who potentially undertake the program.
Method

It is said that organisations rarely provide their staff with the learning tools necessary for them to extract maximum learning from their experiences (Wick & Leon 1993). A research design and method was therefore adopted to allow the HDR Supervisors to not have just a skill building exercise in the traditional training sense, but also to provide an opportunity for maximum ongoing self reflection and learning aligned with the strategic directions of the organisation. Therefore, the development and evaluation of the HDR supervisor professional development program was based on an action research (Creswell 2008). This section reports on the outcomes of the first action research design cycle.

The SCU program developed and adopted the quadrant set of constructs in a program that consisted of eight modules delivered over five weeks and requiring an estimated 15 hours of work:

- Module 1  Introduction to the supervisor professional development program
- Module 2  What is good research supervision?
- Module 3  Supervising research to make a contribution to knowledge
- Module 4  Supervising research to lead to timely completions - well managed research
- Module 5  Supervising research through good teaching
- Module 6  Supervising research with a good relationship between the supervisor(s) and their candidates
- Module 7  Approaches to making research supervision better
- Module 8  Summary and optional assessment.

Each of the modules concerning the four HDR supervisory constructs (Modules 3 – 6) introduced the constructs to the participants, required them to read and respond to a case study (from the fIRST site) and then to participate in a facilitated discussion forum with the other supervisors.

The modules included some of the accumulated wisdom about how supervision might be approached and exposed participants to the philosophical and practical implications of reflecting on supervision from the particular construct point of view.

The program was designed to be self-contained, rigorous and do-able by busy supervisors. It was also designed to a self-paced resource or moderated as professional development. Participants were able to download a work book at the commencement of the program with guidelines and provision to make private reflective comments and with written instructions on how to access the fIRST web site so that they did not have to toggle back and forward for instructions in the on-line environment. The pilot program was moderated by an experienced doctoral supervisor and facilitator, Dr Geof Hill, who also developed much of the program as a consultant.

The program had an international pilot in February 2007 and has had several subsequent iterations. The pilot program drew from an international audience and included research
supervisors from a number of disciplines and educational institutions other than SCU and of course included local supervisors from the various overseas partner institutions offering the SCU DBA program. Fifteen experienced HDR supervisors were recruited for the pilot program located in Australia, Singapore and New Zealand.

Results

The program was formally and independently evaluated. Participants were asked to respond to a survey at the end of the pilot program. The survey items included the following questions:

1. Overall, how would you rate your experience in the program (rated on a 7-point Likert scale).

2. How often is your experience of the following true (rated on a 5-point Likert scale):
   a. The program is suitable for academics in my discipline
   b. The length of the program is appropriate
   c. The depth of the program is appropriate
   d. The discussion forums were useful to my learning
   e. The case studies provided were useful to my learning
   f. The directions in the program materials enabled me to navigate it smoothly
   g. The feedback and discussion from the moderator and other participants was helpful in improving my supervision practices
   h. The program got me thinking about my supervisory style
   i. The program will assist me to supervise more effectively in the future
   j. I learnt things in the program about supervisory practice that I did not know before
   k. The program assisted me to conceptualise my supervision differently
   l. My students will benefit from me undertaking the program
   m. I would recommend the program to my colleagues

Overall feedback was very positive as the summary of results in Table 1 shows.

Table 1: Summary of quantitative findings from program evaluation

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale used</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants overall experience in the program</td>
<td>Seven point Likert scale</td>
<td>6.2</td>
</tr>
<tr>
<td>Average of 13 specific items concerning the program</td>
<td>Five point Likert scale</td>
<td>4.5</td>
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In addition to analysing the quantitative items, a number of qualitative questions were asked including:

- What is one aspect of the program that you consider should be changed?
• What is one aspect of the program that you consider should remain the same?
• In your opinion, what other improvements to the program could be made to make the program more effective?
• Have you any other comments or suggestions you would like to make that might assist us in improving the effectiveness of the program in the future?

A selection of qualitative feedback representative of participants’ comments included:

*I liked the pace and composition. It made me reflect on the use of on-line learning and that is important for us. It would also be interesting to see what happens based on each group of supervisors.*

*I learnt a lot from the discussion board and it confirmed my supervision was on par or up to the mark.*

*The moderator’s prompt responses are crucial to motivation in an online program like this one.*

*The general structure, length and depth of the program (should remain the same).*

*Some of the participants made some interesting observations based on their practice. It would be great if they could expand on these. I think (name removed) is considering developing more case studies based on the participants’ experience for the journal. That should help continue the conversation.*

*I really enjoyed the program and thought it was about the right length for busy people.*

**Discussion**

Busy HDR supervisors often find it difficult to commit to a one-day workshop and such a training design is problematic for creating opportunities for self reflection. The situation is a paradox when one considers the known importance of self knowledge and self reflection if professional practice and leadership is to be improved (Dubrin, Dalglish & Miller 2006).

HDR supervisors are the research leaders in any research environment. Their research supervisory style (and their effectiveness as a research supervisor) will have a significant impact on HDR candidate success and on the research environment generally. Segal and Horne (1997, p. 56), when considering the issue of leadership made the following comment:

*The pursuit of self-knowledge is the work of a developed personality and a characteristic of an enlightened leader. Self-understanding is the most secure bed-rock on which to shape one’s life. Nothing is more important in conditions of turbulence and change than a secure sense of self. Self-understanding also provides a basis for understanding others – it is difficult to
be conscious of another’s need, motivation, and processes without first having awareness of one’s own.

HDR supervisor professional development programs therefore need to offer supervisors the opportunity for self-knowledge and self-reflection if HRD supervisors are to be more effective and embrace their role as research leaders. Self-knowledge and self-reflection are foundations of the educational philosophies of the reflective practitioner, practitioner investigation and community of practice.

The results of evaluation demonstrated that the structure and design of the program was appropriate for busy HDR supervisors. Overwhelmingly, the HDR supervisors found that the program gave them opportunities to self reflect on their supervisory style, assisted them to conceptualise supervision differently, will assist them to supervise more effectively in the future and will be of ultimate benefit to the HDR candidates under supervision. While the perceptions of participants indicated that the program would translate into better supervision practice, no attempts have yet been made to evaluate if supervisory practice as been improved as a result of the program.

Those who attempt to study and measure social and organisational issues, often reduce difficult concepts to constructs in order to investigate and research them. HDR supervisory styles have been reduced to the four constructs outlined in this chapter because as researchers we are not able to directly observe what good supervisory practice is. That is, HDR supervisory practice does not exist as a single observable dimension of behaviour but rather reflects a variety of behaviours, skills, attitudes and beliefs. Constructs are therefore theoretical and latent (not visible or apparent) rather than concrete and observable.

Having now identified four theoretical constructs and introduced these constructs to supervisors as a means to enable them to reflect on their own supervisory styles and improve their practice, the next step in further growing the professional development program will be to operationalise these constructs and measure them.

Further research is therefore focusing on the development and testing for reliability and validity of a web-based self-diagnostic tool and taxonomy for HDR supervisors to assist them to become more self aware of their operational supervisory style. It is proposed to also develop an intensity index that will measure the intensity of the supervisor’s dominant style and therefore the probable difficulty for a supervisor to move their style to a more balanced approach to supervision. Such a diagnostic instrument could be used as a pre- and post-test for the professional development program and for matching HDR supervisors and candidates.

**Conclusion**

This chapter has briefly reviewed some of the international HDR literature about what constitutes good HDR supervision. A constructual framework of four constructs of good HDR supervision were developed and then used to form the basis of an on-line HDR
supervisor professional development program. The four constructs were good pedagogy, good administration and project management, good contribution to knowledge, and good relationships.

While not every supervisor will be effective in each of the constructs, the program provides a method of allowing supervisors to be exposed to perhaps different ways of conceptualising supervisory practice. Theoretically, model supervisors are ones who can form good relationships with candidates, help the candidate to administer and project manage the thesis to timely completion, make a contribution to knowledge and teach students how to do a doctorate.

Building on the educational philosophies of the reflective practitioner, practitioner investigation and community of practice, an eight module on-line professional development program for HDR supervisors was developed and piloted. Evaluation of the program demonstrated that the HDR supervisor participants started to self reflect on their supervisory style, conceptualise supervision differently and supervise more effectively in future. The program will ultimately benefit the HDR candidates under supervision.

The professional development program has been delivered several times and research is continuing on developing and testing for reliability and validity of a web-based self-diagnostic tool and taxonomy for HDR supervisors to assist them to become more self aware of their operational supervisory style. Such a diagnostic instrument could be used as a pre- and post-test for the professional development program and for the matching of HDR supervisors and candidates.
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