A Handbook for Teaching and Learning in Higher Education

Enhancing academic practice

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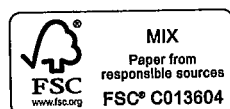
13 Supervising research degrees

Stan Taylor and Margaret Kiley

INTRODUCTION

Research degrees are the highest qualifications awarded by universities. Candidates are required to undertake a research project that makes an original contribution to knowledge and understanding in their subject(s) and present the results in a thesis. In this endeavour, the most important source of support for candidates is their supervisory team, and the quality of supervision has a major impact upon their learning experiences and upon their chances of timely completion. The aim of this chapter therefore is to highlight some of the practices that underpin high-quality supervision. The chapter includes sections on the context of supervision, recruitment and selection, establishing relationships, academic guidance and support, encouraging writing and giving feedback, personal, professional and career support, monitoring progress, supporting completion, supporting examination and reflecting upon and enhancing practice.

THE CONTEXT

Historically, very little attention was paid to doctoral supervision. As Park (2008: 2) has written:

> Traditionally, a 'secret garden' model prevailed, in which student and supervisor engaged together as consenting adults, behind closed doors, away from the public gaze, and with little accountability to others.

However, in the past few years, doctoral supervision has become subject to external scrutiny and governments and research sponsors in many countries have introduced codes of practice covering the quality of doctoral supervision and have acted to penalise non- or late completion of degrees. In consequence, institutions have begun taking a much greater interest in supervision and have introduced policies designed to meet

external requirements, with which **supervisors** need to be familiar. Such policies are often outlined at training sessions for new supervisors, but there is also a need for established supervisors to be aware of them and align their practice accordingly.

Case study 13.1: The UK Quality Code for Higher Education – research degrees

In the UK, and many other counties, there is a **quality code** for research degree programmes which covers:

- The research environment;
- Selection, admission and induction of research students;
- Supervision including:
  - Skills and knowledge of supervisors;
  - Main supervisors and supervisory teams;
  - The responsibilities of research supervisors;
  - Time allocations for supervision.
- Progress and review arrangements;
- Development of research and other skills;
- Evaluation mechanisms;
- Assessment;
- Complaints and appeals procedures.

The Code requires that institutions develop their own internal codes of practice to help them meet the national code, and that these are readily available to all candidates and staff involved in research degrees, including supervisors. Adherence to the national code forms part of institutional review by the **Quality Assurance Agency.**

(Quality Assurance Agency, 2012)

RECRUITMENT AND SELECTION

In recruitment, the aim is, as Grasso et al. (2009: 23) have put it, to ensure that the 'right candidates apply' for research degrees. As Golde (2005) has pointed out, intending applicants are often ill-informed about what they are letting themselves in for because the data that they need is not available. Therefore, one of the keys to selection is ensuring that applicants know beforehand what is involved in undertaking a research degree and about the time in which they will be expected to complete it. Many higher education systems set a limit of three or four years for full-time candidates and six for part-time ones.

In selection, the key aim is that, as Grasso et al. (2009: 26) again have put it, that 'the right candidates are admitted' to the programme. Doctoral programmes obviously demand that candidates are capable of undertaking research. But, as Lovitts (2008) has shown, candidates who excel in taught programmes may not necessarily have the qualities to make successfully the transition to independent researchers. In view of this Seigal (2005: 6) has argued that, as well as degree results, selection should also take into account 'demonstrated research experience' to maximise the chances that candidates can make the transition. Furthermore, in many universities now it is commonplace to interview applicants, in person or via Skype.

Additionally, in those disciplines where candidates themselves choose their topics, selectors also have to take into account whether the school or department has the skills and resources to support the candidate's topic. There is evidence that candidates are more likely not to complete or to delay completion where supervisors have little expertise in the topic (see Bair and Haworth, 2004) or a personal interest (McAlpine et al, 2012) or are 'pushed' to spend time with the student (Cohen, 2011). So, as well as the 'right' candidates, the selection process also needs to ensure the 'right' supervisors.

ESTABLISHING RELATIONSHIPS WITH CANDIDATES

Traditionally, the relationship between supervisors and candidates has been described in terms of a 'craft' model of master and apprentice. But this implies largely passive roles for supervisors in demonstrating and candidates in emulating, which does not correspond to the reality of doctoral supervision. Instead, supervision is increasingly being cast as a specialist form of teaching and supported learning with a focus upon supervisors' predominant styles of supervision and how far they meet candidates' needs.

One of the best known models of supervisory styles is that of Gatfield (2005) who extracted two key dimensions, namely 'structure' and 'support' (see Figure 13.1).

'Structure' refers primarily to the way in which supervisors perceive their roles in the organisation and management of the research project:

- At one extreme, supervisors conceive of their role as one of organising and managing the research project;
- At the other, supervisors conceive of their role as offering minimal intervention and giving candidates the maximum autonomy in organising and managing the research project.

'Support' refers to the way in which supervisors perceive their roles in personally supporting candidates through the ups and downs of life as a researcher:

- At one extreme, supervisors see it as the responsibility of candidates to manage themselves;

Laissez-faire   Pastoral

Low organisation

Low support   High support

Directorial   Contractual

High organisation
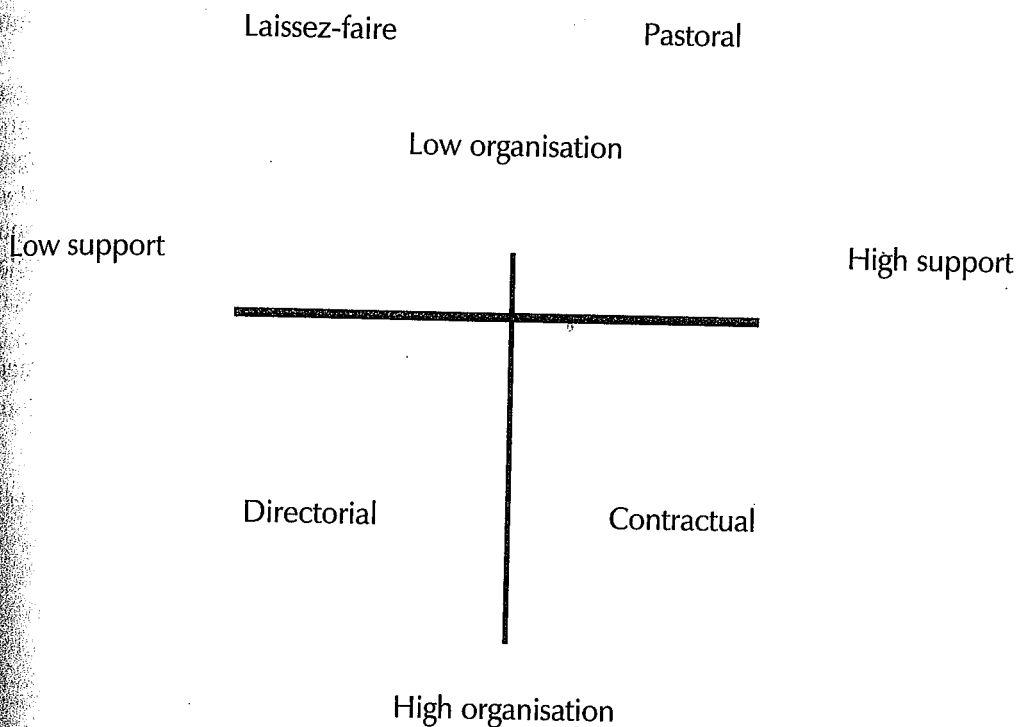
Figure 13.1 Perceptions of supervisory roles
Source: adapted from Gatfield (2005)

• At the other, supervisors conceive of their role as offering a full pastoral support service.

These two dimensions were dichotomised into 'low' and 'high' to yield four paradigms of supervisor styles.

1. The laissez-faire style, which assumes that candidates are capable of managing both the research project and themselves;
2. The pastoral style in which candidates are capable of managing the former but need personal support;
3. The directorial, which assumes that candidates need support in managing the research project but not in managing themselves; and
4. The contractual style, which assumes that candidates need support in both.

As Malfoy and Webb (2000) have suggested, generally as long as there is congruence between the supervisory style, the associated assumptions about the needs of candidates, and their actual needs, there should be no difficulties. But if there is

discongruence, candidates' needs may not be met by their supervisors and problems can occur in the relationship.

Until comparatively recently, the answer to any mismatch would be that adjustment was up to the candidate, who would swim or sink as a result. However, in recent years, it has become unacceptable for supervisors to have one set style and they have been expected to deploy a repertoire to meet the different individual needs of candidates. This has become particularly important given the growth in the numbers of international candidates who may have very different expectations of the supervisory relationship (see Ryan and Carroll, 2005) and/or part-time ones who have very different priorities and needs from full-time candidates (see McCulloch and Stokes, 2008).

Additionally, as Gurr (2001) pointed out, supervisors need such a repertoire to meet the changing needs of candidates over the stages of the research project.

Interrogating practice

- Looking back on your own experience when you started as a research student, did your supervisor have a particular style of supervision?
- To what extent was his/her preferred style congruent with your needs?
- Over the course of your candidature, were you aware of your supervisor varying his/her style as you developed as an independent researcher? If so in, what ways did he or she adapt?

ESTABLISHING RELATIONSHIPS WITH CO-SUPERVISORS

At least outside the US, doctoral candidates have been supervised traditionally by a single supervisor. There can be benefits to the student from having one main source of advice and guidance to support their research projects; however, if that one person is negligent or the relationship doesn't work or if something happens to the supervisor, then serious problems can occur. So the argument runs that, with a supervisory team, there is a safety net for the student and for the research project.

Primarily for this reason, research sponsors and quality assurance agencies across the globe have been requiring or encouraging team supervision with each student having two or more supervisors. While this can have benefits, it can also lead to issues, including conflicts of standpoints, roles, interests and styles (see Taylor and Beasley, 2005). For that reason, the relationship needs to be actively managed by agreeing roles and expectations at the start of the candidateship and reviewing them during its course to ensure that the supervisory team remains fit for purpose.

ACADEMIC GUIDANCE AND SUPPORT

Research by Kiley (2009), Kiley and Wisker (2009), and Trafford and Lesham (2009) has identified at least six key **threshold concepts** that have troubled research degree candidates and inhibited their academic progress. These are the concept of research itself, what constitutes originality, the role of theory in informing research (and vice versa), setting research in its wider context, selecting among competing methodologies and methods, and producing a thesis/argument.

Kiley (2009) has suggested that supervisors need to support their candidates to acquire these concepts by explicitly discussing them, or organising mentoring by more advanced peers and by giving feedback, as well as referring candidates to examples, such as completed theses.

ENCOURAGING CANDIDATES TO WRITE AND GIVING FEEDBACK

In the past, particularly in the sciences, research degrees were seen as 'doing' the project, following which the student 'wrote it up'. In recent years, however, there has been a shift towards incorporating academic writing and feedback as an integral part of the research process from the start (see, for example, Wolff, 2010). Such a strategy:

- Encourages candidates to reflect upon what they have done to date;
- Builds a foundation for the future;
- Gives supervisors the chance to see what has been done and to advise on how to proceed; and
- Develops skills in academic writing early in candidature.

One way of doing this is to encourage candidates to keep a research diary, which is a daily record of what they have done towards their thesis. It includes a record of time spent on the work, activities, analysis and speculation. By keeping it, candidates get into the habit of writing every day, recording what they are doing and reflecting upon it. Further, as Murray (2006) has argued, it gives them a basis upon which to write larger pieces of work.

Of course when candidates do present larger pieces of work, they need to be given feedback. This can be a cause of apprehension among research degree candidates because their work is their own and criticism is often taken personally (see Wang and Li, 2011; McAlpine et al., 2012). It is therefore vital that supervisors think carefully about how and when they give feedback. Taylor and Beasley (2005) have suggested that this should involve ensuring that the setting is appropriate; setting out expectations; summarising what the supervisor thinks the student has written to check understanding; praising the successful parts; identifying the less successful ones; inviting comment from candidates; summarising the discussion; and maintaining a record. As importantly, candidates need to know when they can expect to receive feedback and this needs to be in good time for them to progress their projects.

PERSONAL, PROFESSIONAL AND CAREER SUPPORT

Research is difficult in itself as, by definition, there are always risks, and candidates have to cope with uncertainty, which may be compounded by social isolation and personal issues (see McAlpine et al., 2012). While supervisors are not, of course, trained counsellors, they need to be able to offer personal support to candidates in navigating the research journey.

As well as personal support, supervisors need to provide professional support in terms of:

- Facilitating networking;
- Advising on presentations;
- Encouraging and facilitating publication of candidates' work.

The last is particularly crucial if candidates are contemplating an academic career. As Casanave (2010) has argued, academic selection committees are no longer just looking for experts with PhDs, but for publications as well, and these are needed to be short-listed for academic posts.

In recent years, doctoral graduates have increasingly looked elsewhere for employment; however, employers have deemed doctoral training as poor preparation for non-academic jobs (see Akay, 2008), and in consequence there have been numerous initiatives designed to support candidates to acquire the wider skills necessary for the labour market (Phillips, 2010). In this, as Craswell (2007: 382) has argued:

> ...supervisors are vital in developing candidates' awareness of the importance of skills development, in helping them to identify any skills gaps that might exist, and in encouraging them to address these systematically.

Of course, there are other sources of personal, professional and employment support available to candidates, including peer networks, research groups, graduate schools and student services, including welfare and careers. Supervisors need to be aware of these sources, which are often detailed in candidate or supervisor handbooks, and where appropriate direct candidates to them.

MONITORING PROGRESS

While, in practice, many of the reasons why candidates may leave programmes or delay completion lie beyond the influence of supervisors, the latter have come under considerable pressure to monitor candidates' progress and ensure timely completion.

In order to do this, supervisors need to be aware of the signs that candidates are falling behind. Manathunga (2002) has identified four key sets of indicative behaviours, namely candidates:

- Constantly changing the topic or planned work;
- Avoiding communication with their supervisor;

- Isolating themselves from their department and peers; and
- Avoiding submitting work.

Ahern and Manathunga (2004) sought to classify procrastination as lying in one or more of three domains – the cognitive, affective and the social, and suggested a range of measures that supervisors might adopt, depending upon the cause. For procrastination that arises from:

- Cognitive causes, they suggest that supervisors should broach the matter with the student and identify appropriate opportunities to improve knowledge and skills;
- Affective causes, they suggest helping the student to re-plan the research project as a series of small steps could be effective;
- Lack of academic and social integration, they offer the solutions of establishing research or reading groups or seminars as a way of incorporating their candidates into a supportive research culture.

As well as being aware of the informal signs of whether or not candidates are on track, supervisors also need to be fully informed about formal university systems for monitoring student progress. As Kiley (2011) has pointed out, in recent years institutions have tightened up and extended their monitoring systems with, usually, a 'make or break' initial review during the first year of the programme and regular reviews thereafter to ensure that they are keeping up to the mark. Supervisors have to be aware of these milestones and of the implications for their candidates.

Interrogating practice

- Does your institution have policies and procedure for monitoring the progress of doctoral candidates?
- What are the main milestones?
- Are you involved in judging whether the candidates' initial progress is satisfactory or is this undertaken by independent assessors?
- What is your role in monitoring subsequent progress through to completion?

SUPPORTING WRITING THE THESIS

Once they have completed the research project, candidates need to produce their theses. As Kiley (2009) pointed out, candidates often struggle to understand that a thesis is more than an account of what they have done during their period of research. So it can be helpful for supervisors to remind candidates that a thesis must present a case or

point of view, support this with reasoned argument and evidence based upon original scholarship and contain materials that are new to the research community in the subject and are worthy of publication.

A further part of writing which candidates often find difficult is structuring, i.e. deciding what goes where in the thesis. In this context, one possible strategy identified (see Cryer 2006) is to ask candidates to think of themselves as explorers who have undertaken a journey and who are writing a guidebook to where they have been, and what they discovered in the process. This can be translated readily into the key features of the thesis.

Writing also has to be planned in terms of the balance of words. Many institutions have word limits on the total permissible length, of which candidates should be aware. But, given that the thesis will be examined primarily on the original contribution made to knowledge and understanding in the subject, candidates would be foolish to aim for half of their thesis to be taken up by the literature review, a further quarter by the methodology and only a quarter for the original scholarship. Supervisors then may need to advise candidates to allocate at least rough targets for each part of the thesis (see, for example, Dunleavy, 2003).

A further area where candidates may need advice is in relation to presentation, in particular about meeting any disciplinary style conventions or particular institutional requirements. Candidates then need to be directed towards appropriate sources of information about these matters, e.g. exemplar theses in the discipline or the institution's requirements for the form in which theses are submitted.

Finally, supervisors and candidates need to agree a timetable for writing. This should start by agreeing a target date for the production of the thesis in its final form. Bearing in mind that candidates often seriously underestimate the time required to develop the final version, it is then possible to work backwards and include the time to be allowed for re-drafting, a hand-in date for the first complete draft and hand-in dates for individual chapters.

SUPPORTING SUBMISSION AND EXAMINATION

Usually after several iterations, candidates produce a complete draft and, inevitably, ask their supervisors if it will pass. Once supervisors have acted as examiners a few times themselves, this becomes an easy question, but it can be more difficult for those who have no experience of examination. Here it can be useful to look at the formal and informal criteria used by experienced examiners (see Mullins and Kiley, 2002; Lovitts, 2007) and apply them to the draft, as well as to ask colleagues who are experienced examiners for their opinions.

Examiners then have to be found. Usually, it is the supervisory team which is asked to put forward the names of potential examiners, for which purpose they need to be aware of the formal criteria in the institution to examine a doctorate (see, for example, Tinkler and Jackson, 2004). In choosing examiners, supervisors will normally consult the student, but the latter does not have a power of veto.

In a few countries, most notably Australia and South Africa, it is only the thesis that is examined, but elsewhere there is also an oral examination of the candidate, the viva. This can cause apprehension in the best of candidates, and it is important that supervisors support their preparation for what will be the final hurdle. Suggestions include explaining what happens in the viva, going through institutional guidelines on the conduct of the examination, pointing candidates towards the relevant literature (see, for example, Murray, 2009), and organising a 'mock' viva to enable them to practice responding to questions about their work.

Examiners may make a range of recommendations that can vary from outright pass, pass subject to minor corrections, pass subject to major corrections/fail but with chance for re-submission, the award of a lesser degree, or the award of no degree at all. In practice, a very high proportion of candidates pass outright or with minor corrections, but there are some who are asked to undertake major corrections and re-submit. In such cases, supervisors have a role to play in supporting candidates to make corrections to the satisfaction of the examiners.

EVALUATING AND ENHANCING PRACTICE

Evidence suggests that new supervisors either emulate their own supervisor (if they were satisfied with their supervision) or react strongly against them (if they were not), neither of which necessarily affords a good basis for supervising doctoral candidates from other backgrounds and with other needs (see, for example, Barnes and Austin, 2009). So, as Hill (2011) has argued, supervisors need to evaluate their practice and, where appropriate, enhance it. A useful resource from the Oxford Learning Institute is given in the section 'Where to find more support'.

OVERVIEW AND CONCLUSIONS

Historically, the necessary and sufficient condition to be a supervisor was to be research active. The logic underpinning this was summarised over twenty years ago by Rudd (1985: 79–80) in that 'if one can do research then one presumably can supervise it'. But, while being a researcher is still a necessary condition for being a supervisor, it is no longer a sufficient one, and supervisors need to have a knowledge and understanding of good practice in supervision itself in order to succeed. While the authors have sought to include the key elements of such practice in this chapter, they are conscious that this is only part of a much broader picture. In particular, as one of the authors (Taylor, 2012) has argued elsewhere, developments in research education over the past three decades have meant that supervisors need to have a wide range of additional knowledge and skills – particularly the ability to respond effectively to cultural and social diversity among the student population – if they are going to offer research candidates the high quality learning experiences that they need and deserve.

WHERE TO FIND MORE SUPPORT

The Oxford Learning Institute at the University of Oxford has established a website ded
icated to 'Improving your supervisory practice'. Available from: http://www.learning
ox.ac.uk/supervision/supervisor/improving/ (accessed 24 September 2013).

You may also find some useful ideas in the Vitae Database of Practice, originally
developed by UK GRAD. The database is a searchable store of practice posted by uni
versities and research institutes. While the majority of items submitted to the data
base focus on skill development for research candidates, it also includes support for
supervisors.

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