A beginner's guide to supervising a PhD researcher

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This beginner's guide to supervision has been created for anyone who supports postgraduate researchers (PGRs) with any aspect of their research or the completion of their degree. The supervision of PGRs is a complex and time-consuming job, with a high degree of responsibility. Good supervision is a key component of PGR success and is vital to the health of our research as a nation as well as the health of our individual researchers. In the recent research literature, supervision has been shown to impact on PhD completion time, retention of students, their success, their perceptions of the value of the PhD, their mental health and well-being and their career choice. In acknowledgement, the UKRI 3 statement of Expectations for Postgraduate Training states that "Research Organisations are expected to provide excellent standards of supervision, management and mentoring..." and the UK's Quality Assurance Agency states that therefore "Supervisors should be provided with sufficient time, support and opportunities to develop and maintain their supervisory practice". Noting that "supervisors \{ \frac{1}{2}} represent the most important external influence in the learning and development that occurs in students' training" the International Union of Biochemistry and Molecular Biology's Committee on Education details interpersonal responsibilities of the supervisor that cover the need to work as partners, see the student as a whole person, be aware of power imbalance and develop strategies for the resolution of relationship difficulties, as well as giving academic and career support.

Despite the life-shaping level of impact a supervisor has, learning to supervise well is not always a top priority for researchers in the often-intense early stages of building their career, and a great many supervisors find themselves having to learn to supervise in a hurry, as they take on their first formal responsibilities. With this in mind, please resist the temptation to save this article for 'when problems arise' – a proactive approach will help to avoid issues down the line. Those of you who are moving towards a future supervisor role may be tempted to bookmark this article for 'when you are officially supervising' - and so the point we would like to start by making is that if you are interacting with PGRs in the course of your work, you are already engaging with elements of supervisory practice. Supervision is not something you will switch on once you take a formal supervisor role, but a part of your practice that can and will develop. There is a great deal you can be learning, and indeed contributing to the PGR experience, long before your first 'official' (or first 'challenging') PhD student comes along. While we draw your attention here to several important areas of practice, this is not a guide that aims to simply hand you all the information you need to get started. Rather, it is intended to offer you some ideas to ignite your thinking about yourself and the experiences that have shaped you, about how you understand the role you play in ensuring successful doctoral completion and about your power and position, all of which influence how you react to and respond to others. An ill-considered approach may, after all, have lasting negative impact on your student.

Your supervision filter

The interpersonal nature of the job means that there is no single right way to supervise, and so creating your own personal blend of approaches is going to be important. What you choose to include in that blend will depend greatly on your own context, and your prior educational and workplace experiences. Consider your own 2 educational journey to date, your family background and social context, your status and position, your personal 8 values, what has challenged you, who has supported you and the privileges and power that you hold (see here for a handy graphic to help you analyse these). The cumulative effects of these factors and experiences have given you a filter through which you interpret your role and your purpose, as a supervisor.

Indulge us in a quick experiment. From your current perspective, how would you finish this sentence: The most important thing a supervisor can do is.... Now consider how you might have finished that sentence at the start of your PhD and the many thousands of ways it could have changed through the journey. Every PGR you encounter could finish this sentence differently, and it is good to be aware of that. Your own experience of being supervised will also tint and tone your supervision

filter. There is a strong instinct to emulate what we have experienced as being 'good supervision', and to strongly reject what we perceive to be 'bad supervision'. It's easy to see how this approach can have limited effectiveness, for example if you and your supervisee's perceptions of what constitutes 'good supervision' are very different. A clash in expectations can cause issues that persist through the PhD and influence your entire relationship

Thinking critically and systematically about how your personal experience influences your approach is important. Supplementing that, by engaging with a wide range of opportunities, resources and conversations is important in giving you the flexibility to be able to supervise across a wide range of people, situations and expectations.

Opportunities for 'associate' supervision

So where to begin? As an 'unofficial' or, as we prefer to refer to it, an 'associate' supervisor, building up your experience and skills can be challenging. What activities to engage with, and what opportunities to support PGRs might be available to you? The answer will of course depend on your university, your department and the support and opportunities you have from specialist supervisor developers. We know not all universities (yet) offer the opportunity for research staff to be formally added to supervisory teams and so here we make suggestions that you can seek out or even create in your workplace, without formal supervisor status.

- Day-to-day PGR support. The simplest form of associate supervision is found in the support, guidance, advice and training you offer to the PGRs that you share a workspace with. Welcoming new students, helping them adjust to the environment, rhythms and demands of the PhD and supporting them with research problem solving are all hugely valuable supervision work.
- Creating collaborative spaces. Leading journal clubs, practice presentation sessions or writing groups, retreats or other peer-led support groups will give you opportunities to build specific knowledge of how PGRs learn to read critically, synthesize their reading and discuss their findings in line with the academic style and conventions of your discipline. As this is often a steep learning curve in the PhD, knowing how to support students in this will stand you in great stead.
- Mentoring. Engaging with formal or informal opportunities to be a mentor will help you to sharpen your skills in how to deliver a powerful and meaningful conversation. Good-quality mentoring discussions can give PGRs an opportunity to make sense of their experiences, reset their expectations and remotivate

- themselves to get to the PhD finish-line. All incredibly useful elements of supervision.
- Leading workshops. There may be opportunities to lead workshops as part of PGR induction week, research methods courses, research ethics or integrity workshops, skills development programmes or careers sessions. All will allow you to consider what PGRs need to know to succeed, and how you can best help them to do that learning.

Consider which of the aforementioned opportunities you are already doing, those that are available to you and those that are right for you - it's not an 'all or nothing' approach so consider what is timely and sustainable for you. Decide what you might need to know, read, discuss or understand in order to perform those roles to the best of your ability. Below, we make some starter suggestions for ways to complement the experiential learning listed earlier, through engaging with a range of supervisor development activities and materials. Don't forget that the Concordat to Support the Career Development of Researchers states that you are entitled to 10 days every year, to engage with professional learning and development, and this could be a perfect way to spend some of that time:

- Read your institutional 'PGR Code of Practice', which sets out what PGRs can expect, what support they will receive and what they must agree to contribute and abide by. Perhaps your university also has a 'statement of expectations for supervision' type document too?
- Understand the breadth of learning that supervisors should ensure takes place within a PhD by glancing at the UK's national framework for PhD skills development, the Researcher Development Framework.
- Read about the 10 areas of practice described by the UK Council for Graduate Education's Good Supervisory Practice Framework and the accompanying Research Supervisor's Bibliography.
- Attend workshops and courses on supervision and join supervisor communities and conversations at your institution.
- Read and subscribe to the Supervising PhDs Blog which publishes short, evidence-based articles, as quick 5-minute reads.
- Observe experienced supervisors in practice. This can be done formally (by agreement, as a guest sitting in on a supervision meeting) or informally by observing interactions in your group, at conferences and in other shared spaces. Listen closely to what impact supervisors have on their PGRs and consider both supervisor and PGR perspectives.
- Shadow formal processes. Associate supervisors can most commonly struggle with the opportunities to see the procedural checkpoints associated

with PhD supervision. Arranging to support, deputize or shadow the supervisory team at PGR interviews, annual progress reviews and viva proceedings (where possible) can give you real insight into how to manage these tricky processes.

But before getting too immersed or overwhelmed in what is a vast wealth of supportive and enlightening material on PGR supervision, we would like to invite you to reflect on what opportunities to develop as a supervisor you are already engaged in and to offer you a framework for developing your supervisory practice.

Supervision as practice

Supervision is a practice. It is something you do, not merely something you are, and it is something you can learn and develop over time, not something that is innate. It's helpful to recognize that you are continually learning from the experiences you have attained, and the further experiences, documents, advisory articles and training courses you will encounter. Supervision is commonly thought of as a research practice, in which we as the more experienced researcher advise the PGR, sharing the benefits of our knowledge of the subject area, of the research process and of the conventions and norms of our discipline. This process of socialization into the local and global research communities is important in creating a strong scientific identity.

Supervision should also be thought of as an educational practice because the PGR is learning from us, and in order to support them to gain their doctoral qualification, we deploy different ways of helping them learn. The learning in a PhD extends beyond the project or subject scope and includes knowledge of how to accrue skills and experiences that prepare them for a range of different future career options. A supervisor doesn't have to be a careers advisor, but their support and openmindedness to career exploration are greatly valued by those they supervise - especially since the vast majority of PhD graduates will find their long-term career success in roles beyond academic research and teaching.

Further, we would like to focus on the idea that good supervision must also be thought of as a leadership practice, as it is one through which we leverage our status and knowledge of the culture in which we work to show our PGRs how to operate successfully within the research environment and how to secure resources and opportunities. A good leader also holds the ability to relate to those they lead and to motivate and sustain them as they take on new responsibilities and challenges - highly relevant within a research degree context.

As you might already be imagining, these different ways of thinking about supervision and the different tasks they involve can overlap and intersect with each

A model for supervisory leadership

Now you have had a chance to think about who you are and what you value as a supervisor, we present a leadership framework for thinking about what you do in practice as a supervisor. It is outdated to think of supervision as purely an academic pursuit, focused entirely on the task - the research project - yet many of the policy documents we encounter will naturally focus their attention on the formal processes and checkpoints of the doctorate. Emerging in the last decade, we have seen a welcome escalation of research literature and guidance related to the holistic and interpersonal aspects of supervision, working with the preferences, contexts, motivators, career aspirations and support needs of the individual supervisee.

What we want to emphasize (Figure 1), with the aid of John Adair's model of Action Centred Leadership (1973) is the often-neglected team aspect of supervision. We have selected Adair's model to help to illustrate supervision in practice as, first, it highlights actions that we can take to lead effectively, rather than taking a more theoretical 'leadership-style' approach. Second, this model asks us to reflect on the balance we create between the different areas of practice, the task, the individual and the team, which can be a helpful framework for how to partition your time as a developing supervisor. It can also be a clue as to where you might seek training and § development, for instance, if you spot areas on the model that you feel less confident with or less inclined towards.

Here are some ways in which you might consider your role in cultivating the team aspect of supervision, as a way of reducing uncertainty and stress for everyone involved and creating a cohesive and supportive culture for PGRs, and for yourself. Think about your 'team' in the broadest sense, not just those you supervise or manage, but across the entire research ecosystem around you:

- The supervisory team. Most doctorates are now supervised by more than one supervisor. How can your team work together as a cohesive support crew for PGRs, rather than operating as a group of people with competing priorities and interests? How do you work in tandem with those with oversight of PGR matters, such as PGR Convenors and Deans.
- Role clarity. This applies to defining the supervisory team roles, to student-supervisor roles and to student-student roles, where there are shared activities. Who takes responsibility for making progress in the PhD? Who takes action? Who makes decisions? What responsibilities are shared?

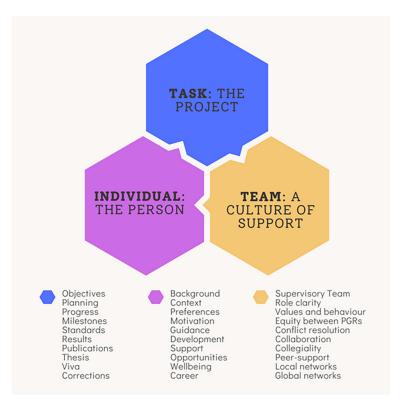


Figure 1. Action Centred Supervisory Leadership.

- Values and behaviour. Does your team know what you value, and what you won't stand for? What are the team rules on sustainable working hours, taking holidays and self-care. How do you expect your team to solve problems, admit mistakes and recognize their blind spots and learning needs? What kinds of interpersonal behaviour are and are not acceptable? What strategies do you have for resolving disagreements?
- Cultivate collaboration. Expect people to work together and actively reduce comparison and competitiveness. Think beyond a 'research collaboration' and find regular spaces for peer-learning, teamworking and group discussion. Think lab meetings, journal clubs, practice presentations and writing groups. Add online chat channels for rapid response peer support. How can these physical and online spaces take on a confidence-building supportive tone, rather than spotlighting one person?
- Fairness, openness and equity between PGRs. Within your team how are you ensuring that opportunities come to everyone equally? What does an inclusive working practice look like to you? When decisions must be made, how are you communicating them?
- Make introductions. Commonly, supervisors are the broker between PGRs and key people in your discipline and global research community. But think local too. Introduce your PGRs to the full support

network including administrators, developers, funding specialists, librarians and finance teams. Help PGRs to navigate the organization and proactively find support.

Like your wider practice, how you bring these ideas together will be developed and informed by your own experience so far. The key success factor in all of the earlier points is that you are able to role model good practices yourself, not just require them of others. Your PGRs will be strongly influenced, not by what you say, but by what they see you do in reality.

Communicating your supervision principles

Having now thought about your own supervision filter and how this interacts with your approach to the Action Centred Leadership model, you may be beginning to crystallize certain expectations, of yourself as a supervisor (now and in the future) and of the PGRs you will supervise. The idea of actively and explicitly 'setting expectations' with PGRs has in recent years become a mainstay of many supervisor development programmes and advice books. There are several common expectation-setting activity worksheets such as the one created by Anne Lee and the one created by Hugh Cairns (it would be interesting here to note whether you

perceive that these linked resources are based more on the task, individual or team). These tools are designed to be used in the first weeks of the PhD to get off to a good start. However, we suggest that expectation setting can usefully begin before the PGR arrives, indeed before they are accepted on to the PhD programme. It is common for academics to list topics or projects they will supervise on their institutional web pages, so why not add how you will supervise and communicate the principles that govern your approach. When you interview potential PhD candidates, why not look beyond their academic achievements, and talk to them about what they are looking for in a supervisor?

Final thoughts

We would like to thank you for reading this post and for committing your valuable time and energy to considering our points and to taking an intentional approach to supervision, an important academic responsibility and a vital underpinning of a good research culture. Don't

forget that while the PGRs you support as a supervisor at any stage will be very appreciative, not everyone will be aware of the level of effort and expertise you are contributing to your groups and departments. Documenting your contribution and your commitment to upholding good supervisory practice can be done on your CV, in job and promotion applications, in your annual performance and development reviews and even through formal professional recognition channels like the UKCGE Recognised (Associate) Supervisor Award. Having knowledge and awareness of the contribution you are making to upholding the standards set out by research funders and regulatory bodies will benefit you in funding applications and can also help you feed in to university conversations about the development 3 opportunities staff need and the formal recognition and opportunities for supervision that we would like to see afforded to all levels of supervisors, who, after all, make a life-changing contribution to the career success and well-being of those they supervise.

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Further Reading

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Web Resources

- Supervising PhDs
- UKCGE Good Supervisory Practice Framework.



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