

# In supervisors' words...

An insider's view of postgraduate supervision

Peter Kandlbinder and Tai Peseta  
The University of Sydney



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### **In Supervisors' words: An insider's view of postgraduate supervision.**

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Published by the Institute for Teaching and Learning, The University of Sydney, Sydney NSW 2006

ISBN 1 86487 365 5

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This project was funded through the Office of the Pro Vice-Chancellor (Research), University of Sydney. To this end, we would like to acknowledge the ongoing support of Professor David Siddle for the Postgraduate Supervisors' Development Program. We would also like to acknowledge the work of Rachel Williams for the design and layout of both the print and web-based versions of this project, along with our colleagues at the Institute for Teaching and Learning for comments and support. Finally, our thanks to all the supervisors who contributed their experience and wisdom to this project.

# Preface



The education and training of graduate research students is unarguably one of the most important functions of a university. The task is deceptively simple: to train successive generations of researchers at an international level who are capable of innovative and programmatic research across the spectrum from fundamental to applied and in a variety of educational, R&D, commercial and industry contexts.

The supervision (or mentoring) of graduate research students is a multi-dimensional activity. Good supervision involves sensible institutional policies, a commitment to the provision of appropriate infrastructure, and a culture that values postgraduate research and views it as an essential part of the institution's research profile. Above all, good supervision involves the work of individual staff who have the task of ensuring that students have every opportunity to develop research skills. These skills have to be employed in a manner that ensures that the international community of universities recognises, through the award of a research degree, that the individual is capable of systematic and critical analysis of a problem in a manner that adds to the stock of knowledge in the particular discipline.

There are many pressures on our system of research training. Employers sometimes comment that our PhD graduates lack certain skills that are necessary for work in industry – skills such as communication ability, leadership, and ability to work in a team. In addition, it is arguable that at least some of our students would benefit from exposure to short courses on intellectual property and its management and aspects of entrepreneurship and commercialisation. However, any initiatives in these areas must not compromise the quality of our PhDs. In addition to these issues, the new Research Training Scheme emphasises the need for higher completion rates

and shorter submission times. Institutions that fail to respond adequately to this challenge will be punished by a reduction in operating grant and a consequent inability to provide appropriate environments for research students.

The University of Sydney is acutely aware of its responsibilities in this area. The Graduate Studies Committee of Academic Board is currently reviewing a range of institutional policies relating to infrastructure support, the monitoring of progress and the examination process. The Institute of Teaching and Learning has for some time run an extremely successful on-line course for supervisors. The current work grew out of a desire to utilise in that course information from successful supervisors. Funds were made available for the study through my office and Peter Kandlbinder and Tai Peseta have described how the supervisors were chosen and how the data were collected. The result is a rich set of case studies that contain many sharp insights into the supervisory process.

The work described here will be of interest to supervisors, students and to those who are concerned to develop policy that promotes quality in graduate research training. I would like to congratulate the authors and the supervisors who took part and commend the work to all those who are concerned with graduate research education and training.



**Professor David Siddle**  
**Pro-Vice-Chancellor (Research)**  
**The University of Sydney**

# Introduction



Good supervisors do more than simply rely on techniques and methods for effective supervision. The uniqueness of each research project makes it difficult to generalise principles of good supervision. The following vignettes are the result of asking successful supervisors

from the University of Sydney to reflect on their supervisory practice. Together, they demonstrate the range and depth of supervisory approaches that will be particularly useful for those who are new to supervision.

Rather than describing themselves as teachers, supervisors were more likely to consider themselves as moving between the roles of mentor, facilitator and manager, guiding students to become independent researchers in their chosen field. Supervision was seen as a series of interactions where the goal is for the student to construct a thesis of an appropriate standard. Included in this dynamic, are the social aspects of becoming an independent member of a community of scholars.

Through informal interviews, supervisors were asked to clarify their understanding of what constitutes effective supervision and share their insights and experience with colleagues from within and across disciplines. These supervisors want their students to think critically, explore and push the boundaries of the discipline. It is clear that supervisors see themselves as co-learners in this relationship. While it is

clearly up to the student to do the research, supervisors found that they could provide more meaningful guidance once they learned about the student and their research project. To help build a co-learning relationship, successful supervisors tended to focus on three aspects of the candidature:

- Establishing clear goals—usually framed in terms of finding a researchable question
- Developing partnerships—by encouraging students to be reflective about the skills and abilities needed to complete the project
- Managing the supervisory process—through regular meetings and seminar presentations

What students are expected to bring to this relationship is a sense of enthusiasm and ownership of the project. This enthusiasm is about an openness and willingness to communicate how the research is progressing. Students need the skills and knowledge necessary to complete the project and an understanding of the standards and expectations of the discipline. A student was often described as undertaking a journey and it was the supervisor's task to read the danger signs of when they began to falter.

## Case Studies in Successful Supervision

Each of the supervisors included in this study were nominated by their Department's Postgraduate Co-ordinator or through a student selected process established for the Sydney University Postgraduate Representative Association (SUPRA) Supervisor of the Year. In response to these nominations, supervisors were then asked to describe their

particular supervisory approach. Twenty-seven supervisors agreed to participate in in-depth interviews. This took the form of a guided conversation - taped and later transcribed. All twenty-seven are available online at <http://www.itl.usyd.edu.au/pg/casestudies/> however, these twelve were chosen as representative of the range of supervisory approaches which were contributed. They are presented here, re-written to turn the transcribed conversations into a coherent case study. Supervisors were given an opportunity to clarify their statements, and their own words are used wherever possible, maintaining the informal style established during the original interview. Where available, relevant excerpts from their students are interspersed with the supervisors' stories.

What is clear from the following vignettes is that successful supervisors are typically those who are thoughtful about how they supervise and who draw on a range of approaches to fit with each student's individual circumstances. Good supervision also pays attention to the social context of research by guiding students to build a scholarly understanding of their environment. What makes supervision of poor quality, is when supervisors neglect to learn from their own experiences.

### Research Supervisor Development

While there is general agreement that being a good researcher plays an important role in mentoring students into a discipline, it has been recognised for some time that this alone is not enough to become a good research supervisor (Pearson, 1997). We can see from these case studies that supervision is highly individualised, fluid, and often speculative in nature. Supervisors described three main ways in which they learnt to supervise:

- By being a postgraduate student themselves;
- Through their own academic practice within their academic discipline;
- Through trial and error.

With the close and personal relationship between supervisor and candidate obscured from easy view, there are few opportunities to witness successful supervision outside of one's own experiences. In supervisors' words, the best they have to offer students is their time and experience. This collective wisdom

warns against what one supervisor called 'oversupervision'. Effective supervision involves finding the balance between being too directive, and encouraging students to work it out for themselves. All of this implies that supervisors have a role in keeping regular contact with students and setting up an environment where critical feedback on both the thesis and relationship is valued. What successful supervisors recognised was that this feedback should occur through a structured process, whether in one-to-one discussions or through a student seminar series.

### Creating academic communities in postgraduate supervision

Listening to successful supervisors recall their own PhD experience seems to recall many stories of isolation and loneliness. In spite of this, the majority report that they continue to enjoy a good relationship with their own supervisor, often years after graduating. This demonstrates the complexity of research supervision whose network of negotiated connections can only be understood in their context. What we know of supervision comes to us either first-hand through our own experiences as a postgraduate student or by engaging with the retrospective reflections of colleagues. The result of asking supervisors the secrets of their success shows us that the focus also needs to be on the social aspects of the research experience.

Understanding how successful supervisors came to be effective has been critical in designing a program for the development of supervisors. With successful supervisors stressing the interpersonal relationship, co-learning and encouragement, the challenge of supervisor development is to provide the same supportive environment for supervisors with differing contexts, experience and disciplinary expectations. The following case studies go part of the way in raising an awareness of the variation in supervisory practice and supporting supervisors' reflections of their own postgraduate supervision.

#### Reference

Pearson, M. and Ford, L. (1997) *Open and flexible PhD study and research*. Canberra: Department of Employment, Education, Training and Youth Affairs, Evaluations and Investigations Programs.

# Paul Canfield

Veterinary, Anatomy  
and Pathology

According to Associate Professor Paul Canfield, supervising in a professional discipline such as Veterinary Science throws up all kinds of issues around vocational pathways. Supervising since the early 1990s and in the role of Head of Department, Paul uses the professional basis of veterinary practice to talk with his students about their goals in pursuing postgraduate study. While his supervision is very much about helping students to establish clear goals, Paul describes his supervision as part of the journey of lifelong learning and sees his role continuing past the thesis submission date.



*...Recognise that some candidates*

As a supervisor, Paul Canfield's emphasis is on getting to know the student and being flexible about the whole process of postgraduate supervision. Paul realises his approach to supervision takes a great deal of commitment.

It's the most time-consuming process I know of. You've got them basically 24 hours a day, 7 days a week. Now I've got a very good group because they're reluctant to impinge on my private time, although I tell them if they want to, they can contact me then. But I think it's still that commitment you have to have.

From the beginning, Paul stresses the closeness of his relationship with his students to build trust in his supervision.

Basically I tell them what I'm good at and what I'm not good at. I think that actually puts them at ease, and it gives them some confidence as well. They realise then they don't have to be world-beaters to be reasonably successful.

A major component of Paul's approach to supervision involves one-to-one meetings. As a pathologist, he has quite a number of students who use the microscope for the bulk of their research. Meetings on the bench might only take a few minutes as he looks at a couple of slide sections for them. While this provides an opportunity to do short bursts on specific problems, Paul also schedules more regular meetings where he can discuss the general thrust of the project plus other matters such as their career paths.

They'll have formal talks where they might want to sit down for half an hour, or they just chat to me for five minutes, depending on what's going on. In the regular meetings, I may only spend 10 or 15 minutes talking about particular aspects of the research. The rest of the time it might be what they're doing in the department or what plans they've got.

Paul does not rule out using group processes when they are appropriate.

*are professionals who have been out in practice*

## Establishing clear goals

I can understand wanting to get the PhD students all working on aspects of the same project, discussing the research and how it's all fitting together. But so far as getting to the bottom of any problems that individual students have, you've got to talk to them individually because they're not going to say things in front of the other two.

Paul's intensive contact with his students means that when it comes close to writing-up time his students become even more demanding. His aim is to solve any potential problems before they actually start. With a high level of interaction, Paul is able to pick up on when a problem is developing for most students.

Like everybody else they have problems from day to day. Some they don't tell me about because they can solve them themselves. Others, will go on for a period of time and they will need to discuss it with somebody and obviously I'm the logical one for them to discuss it with.

Dealing with issues before they arise means there haven't been any insurmountable problems. Where there are specific issues with the research, Paul says that the solution usually involves providing a certain degree of practical help.

If they've made that real effort and they can't get anywhere, then I'll take it on board for them. If they haven't thought about it, I throw it back into their court again, and tell them to come back and see me.

### Students as colleagues

The majority of Paul's students start their research degrees after they have been out in veterinary practice for a number of years. Paul feels that it is important to recognise that they are professionals who have been out in practice. Coming back to university has put them back at 'square one' again and they want to know how what they are doing fits into their future careers. Supervision for Paul goes beyond the research project.

It's also them giving me some clue about where they would like to go in the future. Sometimes they haven't got a clue so we leave it as open as possible. What I suggest we do is involve a component of this discipline in the work and a component of that one, and we'll see what interests them as they go through.

Paul accepts that most of his students are looking for another career path in veterinary practice, either as a researcher or some other form of specialisation. Paul finds it helpful to structure his approach to supervision around their career aspirations when working with them on a project.

I think I have an advantage because I'm teaching in a professional faculty and we're talking about vocational skills all the time. Obviously that's going to flavour or colour what I think about graduate supervision as well. In essence they're trained in a broad way to look at disease. They already have an understanding of the concepts of various disciplines. What they're trying to do is to utilise some of those for a career path.

Because he considers his students to be colleagues, Paul also interacts with his students outside of general work hours. Some of them become good friends, but Paul doesn't push them into socialising, rather to mix professionally. If that happens to be socially, then he is happy to take part. However, he is also aware that a high level of familiarity can cause problems with certain students.

Usually they do mix socially because they've got common interests or common research projects. I won't say the extent to which some of them have become really close friends, but they have a good working relationship and that usually overflows into the social situation. So they might go to the pictures together or something like that. And it sometimes happens as well that we might go out to dinner. Usually the focus for that would be me. There's no arrogance in that. It's just for example, if I was going overseas they would say, 'let's go out to dinner,' so the whole lot of us would go.

# Annick Ansselin

## Physiology

Dr Annick Ansselin is a Senior Microscopist in the Electron Microscope Unit. After a long career in professional practice, Annick turned her talents to academia. She describes her discipline as anchored in both Science and professional practice. While acknowledging the usefulness of theory, Annick's teaching and research is based in practice. It is this framework that guides Annick's view of effective supervision. In working with students, Annick asks them to be explicit about their reasons for further study. This is so Annick can guide students' understanding of their professional context.



*...Get experience from*

Annick Ansselin works hard to encourage her students to think about their futures, post-research. Students who seem to have the most difficulty, are those who have not formed a clear sense of their career direction. Part of Annick's role as a supervisor is to provide students with a framework for engaging with it at the very outset of their candidature.

If they have no plans for their future then it's almost like they've wasted their time, which is a real shame because it is a big investment of time, money and effort.

It is Annick's professional experience that has led her to believe in the importance of this consideration. She argues strongly that it helps students become aware of their responsibilities in order to position themselves as people who can make informed decisions. Annick finds that students who progress into a PhD straight from undergraduate honours are often unaware of the context in which their research is located. In the early stages of candidature, she asks her students about their reasons for pursuing postgraduate study.

I like them to think about what it is they want to get out of it. Is it that they want the title? Because some students do. Where are they going to try and get a job? If I see an advertisement in journals for post-docs, I start sending them to students. I say 'this is what's available, start thinking about it'. Go to conferences. Talk to people. Get known. Tell them you exist.

### Providing encouragement

With clear professional goals in mind, Annick encourages her students to develop the skill of critical questioning.

I've always tried to encourage them to doubt right from the start. I think the only way to learn is to not take anything for granted. Go to the literature, come back, discuss. Go and talk with everybody, get experience from what other people are doing.

Annick also wants her students to be able to talk about their research. Often, this means suggesting that they attend and participate in conferences. “I encourage them to give presentations, a poster presentation if nothing else, but an oral presentation is more useful.” This can sometimes involve a great deal of training. To help start this process, the Department of Physiology, where Annick’s students have their disciplinary home, provides a seminar series which graduate students attend and where they must present a seminar if they haven’t presented work at a conference during the year. The seminars offer an opportunity for students to connect with others, to become aware of other lab based projects and relate it to their own experiences of research.

*Annick is available to her students, making herself accessible in person or via phone and email. On a number of occasions she has willingly devoted her spare time to assist me with experimental procedures and thesis drafts. She is patient with and supportive of her students, recognising the need for a steady influence - PhD student*

In describing students located in the scientific tradition, Annick makes the following observation.

They find the process of actually getting up and talking about their research very daunting. I think it is one of the major reasons why the community sees science as being esoteric and not very relevant. Many scientists do not communicate very well. I think because science is a discipline where it is very easy for people to lock themselves up in the lab and do experiments, you can get so involved in what you’re doing that you don’t really care if anybody else knows about it or not.

## Writing research papers

In line with improving students’ communication of their research, Annick believes it is important that they begin writing papers as early as possible. It is the process of critique and feedback that Annick argues is useful to students.

That’s pretty devastating you know... the first paper that gets knocked back with serious comments. I’ve had one student who was really never able to cope with that. He just walked away from it and wouldn’t have anything else to do with it. You need to be able to take a positive look and say ‘well, they don’t understand what I’m trying to say, but I probably did not express myself clearly’. It helps no one, least of all the student to say the referee is too stupid to understand! That’s a very bitter lesson to learn and students must be able to say, ‘the referees have a point here, I wasn’t clear enough, or they’ve misunderstood because I didn’t explain it well enough’.

Annick cautions supervisors from taking too heavy a hand in writing papers for students in order to cushion the blow of criticism.

Supervisors are not doing students any favours if they do the writing and all the revisions because somewhere along the line, if the student is to become a scientist, he/she has to write well and cope with criticism. It is an important skill to develop... to not take criticism too personally. It isn’t the end of the world. I encourage them to try for other journals and to remind them that journals are knocking back far more papers than they are accepting.

## Finding the Balance

Annick maintains that supervisors have to learn to be relaxed about their practice. This is about striking a balance between providing students with a support structure to explore and not getting too concerned if that then leads to some tangential reading and thinking. Annick’s advice is to let the student go, but to be there when needed.

Let them explore, let them develop their skills, their own critical skills, even if it isn’t easy to do so.

# Jane Simpson

## Linguistics

The Department of Linguistics has been involved in the organisation of the nation-wide Linguistics Institute. Held every two years and consisting of two weeks of courses and workshops, the Institute acts as a central point where linguists can meet and discuss developments in the field. Dr Jane Simpson uses the Institute to orient her students to postgraduate study, and to establish goals in students' research. Supervising since 1989, Jane's approach has been about helping students to think more clearly about their ideas and introducing them to a community of researchers.



*...Establish an environment in*

### Building a research climate

Jane Simpson is passionate about establishing an environment in which sharing and research can take place. Learning from her experience as a doctoral student in the US where students were actively encouraged to build collegial relationships, Jane is interested in generating the same kind of enthusiasm amongst her students.

Graduate students did coursework together and it was the most exciting period of my life I think, for shared enthusiasm, directed research and lots of contact with supervisors.

But there are two levels in which Jane argues that this needs to occur in order to be effective. One is within the department, and the other is within the discipline.

We have regular departmental seminars where students present. It's a mixture of staff, visitors and students. There are usually a couple of postgraduates who like to be involved in the organisation of that and spur the others into giving seminars. The great advantage of the Linguistics Institute is that many of us are in small departments and we can't offer our graduate students a range of linguistics subjects. There are people all over the world attending courses there. Our students are really motivated by it.

The Linguistics Institute also helps the Department to build its research climate in a way that is student-friendly, through encouraging them to interact with each other. Attended by a range of people throughout Australia, Jane says, "it helps students to discover that there are lots of different ways of doing linguistics which enable them to get a truthful direction for themselves".

*which sharing and research can take place*

# Establishing clear goals

## Establishing clear expectations

Making expectations clear to students is something Jane recognises as extremely important. She acknowledges that there are all sorts of difficult issues around supervision that can escalate if there are misunderstandings about what the process entails.

I have had to put a notice on my door which says, could you knock if it's your appointment time? I had students who came up for their appointment who couldn't bring themselves to knock on the door because I had someone with me. I was expecting them to knock and say, I'm here.

This has improved over the time Jane has been supervising. She has been setting regular appointment times with each of her students, and typically communicates via email. This becomes particularly important given the large blocks of fieldwork that are involved in some linguistic research projects. Jane also suggests that supervisors must familiarise themselves with how the university supports postgraduate students. This means knowing about Student Services and places like the Learning Centre.

*Dr Simpson was extraordinarily helpful not only with her time, but also with her resources. Any book or paper which she had was mine for the asking. If there was a problem with postgraduate space I was free to use her office. And if I needed to read a difficult-to-get paper she was always prepared to employ her time, her good offices and her contacts to procure it for me - PhD student*

## Responsibilities of supervision

Jane describes her supervision as being divided in two sections. The first is about providing practical assistance.

That means letting them know about job opportunities, making sure they have access to grants, a decent space to work in and constant contact with a supervisor.

The second is about the development of scholarship.

There's the intellectual development, which is about helping them get on with the thesis, providing access to ideas and people working on relevant topics. It's about reading what they are trying to do and arguing with them, helping them to tighten their ideas, working on their writing style so that it can be accepted for publication.

*I might add that during the time of my candidature, I was friendly with other students that she was supervising. And so I was aware that Dr Simpson was very flexible in her approach to different students and their needs: this one needed detailed guidance, while that one needed to be left alone for periods, this one needed regular scheduled appointments, that one could be relied on to come forward when appropriate, or this one and that one would benefit from reading each other's chapters. What was common to all was that Dr Simpson was always available, always concerned, always helpful, always courteous - PhD student.*



## Margaret Harding

### Chemistry

In the role of Postgraduate Coordinator, Associate Professor Margaret Harding has a broad understanding of the issues that arise for many postgraduates in the School of Chemistry. A supervisor at the University since 1990, Margaret argues supervisors need to build robust relationships with their students. One way of building this context is to negotiate the expectations through which the supervision and research will take place.

Margaret Harding's supervision responsibilities began when she started supervising honours students. She has learned a lot about supervision since that time, mostly about setting up mechanisms that act as preventative measures to handle problems as they arise. From those first few students, Margaret found that she,

learn[ed] by what evolves in the course of their candidature, and you often decide to do some things differently. So, having that experience and saying, 'how could I have handled that differently?', I've implemented strategies later on with my PhD students to try and ensure that those situations didn't happen again.

### Discussing the process

For Margaret, setting up clear ground rules is crucial for this process to happen smoothly. She does this by talking about the process from their very first meeting.

I talk to them about it up front because in terms of supervision, before they start and before they agree that they want me to supervise their research, they need to understand what I expect. And I'm quite happy for someone to say, 'well that's not the way that I want to go about it'. That's no problem but they should work with somebody else.

I never felt that my questions or concerns regarding my PhD project were insignificant in her mind. She treated me with respect and without judgement. She understood the process of education and the need for guidance yet space – PhD student.

Talking and thrashing the issues out with students is an important part of how Margaret goes about supervising. In this way, students collaborate on the aims, goals and have a sense of what they set out to achieve in their research. They are also reminded of the parameters of their projects. Margaret describes the content of these meetings.

I give them some rough outlines of the goals and what they should achieve. I always say to them, 'research is not easy'. Sometimes there is a broad aim and after eight months very little progress has been made. We need to be able to reassess whether we continue along that stream or to change track.

Margaret takes quite a hands-on approach with her students. Her rationale is simple.

It forces them to sit down and write the work up, assess and interpret. It gives them a good feel for the progress of their research because they might feel, 'I haven't achieved much' but when you write it up you can see that the research is quite substantial. By the same token, for those who haven't done anything for six months, it's a wake-up time.

### **Drive the research**

It becomes an exciting time when students have some intellectual ownership over their research because students are inclined to become more self-motivated. Margaret describes the change as,

it's not knocking on my door, 'I've got this result, what should I do now?'. They come to appreciate their results in the context of the literature and become enthused by it.

Margaret maintains that her main role in supervision is to act as an advisor – to provide the scientific expertise for her students to bounce their ideas off. But she also argues that postgraduate students need to get a feel for what research is about. This means moving to more generic skill development such as problem-solving and critical thinking, rather than purely scientific training.

### **Solving problems**

In the role of Postgraduate Coordinator, Margaret liaises regularly with the Postgraduate Student Committee to get an understanding of the issues students believe are important to them. Developing a good rapport is important so that both parties can be comfortable about raising issues. Sometimes, Margaret has the job of intervening in supervisory arrangements that are unproductive.

I think that at the origin of a lot of problems is that there is some reluctance between the parties to communicate the issues. What I try to do is generate that level of understanding so that the student can come any time and tell me, 'look I'm floundering here', or 'I hate this aspect' and we can resolve and work through the problems. But the supervisor also needs to tell the student, "you're not working at the right level and it's my job to tell you. I'm not doing it to be unpleasant".

Margaret acknowledges that "it's a hard slog for PhD students", but she recommends that supervisors must be available and advise them honestly about the progress of their research.

## Hugh Luckock

### Mathematics & Statistics

Dr Hugh Luckock has been supervising since the mid-1990s. Working in a very specialised field in Maths, Hugh acknowledges that as a supervisor, part of his role is to build bridges with Maths practitioners. He does this through organising academic visitors, assisting students to present at overseas conferences and organising local conferences. All this work helps students to understand that there are a multitude of ways of interpreting mathematical problems and solutions.

Ideally, Hugh Luckock would like to say his role as a supervisor is simply that of facilitator, “somebody who helps to steer them back on the right track if they’re going astray. In practice though, because the subject is extremely difficult, I think inevitably it’s going to involve a lot more than that”.

Hugh finds that supervision is a mixture of good rapport and formality.

When I began I was quite keen to have a very friendly, good-natured relationship with my students, which I think is important. I’ve subsequently come to feel that perhaps one doesn’t want to focus too much on being liked. You do need to have an element of authority to be able to say, ‘well I want you to present a talk on such and such a date’, and know that the student takes that seriously.

### Negotiating expectations

Building a rapport with students remains a high priority in Hugh’s supervision. He just finds it needs to be balanced with a clear list of expectations. “I think you do need to specify in advance what your expectations are, and perhaps to make sure that students understand that if those expectations aren’t met, then there will be a consequence.” While not something he currently practices, Hugh suggests that in the future he will consider having these expectations written up. “I would make it clear to the student that if these expectations weren’t met then I’d notify the department about it. Which isn’t necessarily a fate worse than death, but it indicates that it’s at least on the record.”

Hugh feels that it is very important to get on with the students and to avoid confrontations.

In my experience if you approach it like most sensible adults approach conflict you can defuse the situation. It’s just that the postgraduate supervisor relationship is a particularly close one in some ways, and I can imagine that if it gets off to a rocky start it could be quite difficult for the student. I haven’t really found that to be a problem. I’ve had a few disagreements with my students but that

hasn't really been a major issue. I do feel it's really important for a supervisor to try to keep their impatience in check and to leave out things like ego or anything which is going to promote a more emotional response. Often it's important to take a deep breath and put a smile on your face when you're actually feeling quite impatient. If you make a slip-up it can have quite long-lasting consequences.

## Meeting with students

With students who are struggling with new material, Hugh finds the early stages of a candidature can be very time-consuming. "It's going to involve a lot of one-to-one teaching, tutoring, explaining and so on. That's actually been a very large part of what I've done. I would like to think of that as not being so much a responsibility as just a sensible way of dealing with problems as they arise."

Hugh makes it clear that he also expects students to produce a certain amount of written work at the end of each period.

I think it's very important that students recognise that they have responsibilities as well. Now with some students you don't need to do that, but most people need a bit of a kick to do something unpleasant like presenting a paper for the first time. As they're approaching the end of their projects my role is to review what they're doing, to make sure that they're not going way off on a tangent.

Fortunately, most postgraduates are realistic about the candidature, although from time to time Hugh gets the feeling that some of them think,

why isn't he imparting more knowledge to me? So I do try now to emphasise to students that it's really their job to find their way through it. It's their job to make a choice between different approaches, between different projects, and my role should be an advisory one. In practice of course, it's a lot more than that. But in principle, I feel that they should expect to take quite a bit of responsibility for the direction they're going, for the methods that they use and for finding out the things that they need.

## Communication Skills

Hugh says that it is a common misconception that mathematicians do not need good communication skills.

If you tell undergraduates that they need to express their ideas clearly, they might say, 'that's not what I'm doing mathematics for! If I'd wanted to express my ideas clearly I'd have done English'. Fortunately, by the time they get to the postgraduate level I think they all accept the importance of communication skills, at least at some level, but you generally have to push things in order for the message to get across completely.

Being in a highly specialised field means Hugh has to create opportunities for students to present their research and to give the students some exposure to people with other ideas. "In the area I'm working, there is only a handful, about three people in Adelaide, maybe one or two other people, scattered about Australia. That's quite a challenge for me with my students. One of the ways I've tried to deal with that is by inviting visitors here, and we've had quite a few visitors over the years."

Another strategy is to help students to attend conferences both in Australia and overseas.

Each of them has been to a couple of major overseas conferences. I organised a large conference here last year and each of them has been to a number of Australian conferences as well. Along with our few visitors, they've had a chance to meet and talk with quite a wide range of different specialists. I wish that I could offer them more than that but in the end it boils down to money.



## Catherine O'Brien

### Social, Policy and Curriculum Studies

Catherine (Kitty) O'Brien has been supervising since she came to the University 20 years ago. In that time, she has noticed that students are coming into the PhD program with a much clearer and focused idea of their intentions, rather than an exploratory motivation. Kitty talks about guiding the student, listening to their ideas and then reacting appropriately. This is why she believes that a robust and close relationship is paramount for effective supervisory practice.

#### Making expectations explicit

Kitty learned about being a good supervisor by working closely with an experienced colleague. This helped to clarify her own expectations of supervision and to realise that there are some general principles applicable to the relationship despite disciplinary conventions. She argues that effective supervision depends on a strong connection with students. Establishing an effective line of communication is all about making expectations explicit at the outset of the relationship. Kitty argues that this must happen early on in the candidature because supervisors need to be aware if problems are occurring. One example is arranging student meetings.

You need to make decisions around, for example, whether you're going to have students calling you at home, whether you're going to be available for certain days of the week, or year, particularly for part-timers who have less access.

Making this explicit at the beginning of the relationship also means that Kitty can get to know her students, the way they like to work and find out if there are particular events that are impacting on the progress of their research.

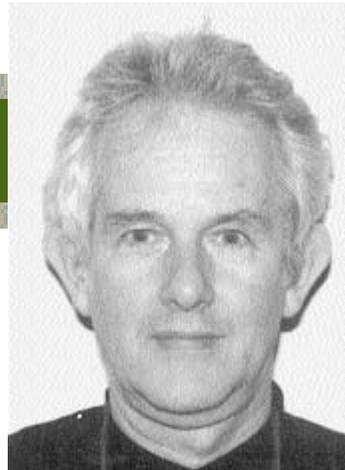
I think you need to find out who they are, the sorts of things are affecting their lives, any prior experiences they've had, not just in research but also in what research methodology they are interested in.

## Guiding students

Kitty is hesitant about imposing her ideas on her students, too soon. When working collaboratively with students on projects, Kitty is keen that the ideas emerge from them. She sees this as an important part in developing scholarly inquiry and intellectual ownership.

I might bring in a project of my own and talk about something I've done that's similar. But I think that it's important for any PhD student to be so into a project that they can stick to it for that three or four years or so. But at the same time, I encourage them to get ideas from other people – not just to talk with supervisors but to people around the world who they can bounce their ideas off.

If students are unsure about what direction to take, Kitty is more inclined to say, “do you think you'd be interested in going in this direction?”, rather than thinking, “what would I do in this situation”. She considers this an important aspect of teasing out, talking and finding out how students are thinking about their research.



## John Clark

Art History and Theory

Supervising partly in the School of Asian Studies but mostly in the Department of Art History and Theory, Associate Professor John Clark argues that a supervisor's primary responsibility is to defend a student's work against critique. As he puts it, the supervisor is "first enemy, but first defender of the thesis". In John's view, it is only when supervisors and students work together to identify and anticipate counter argumentation, that students' work will be truly original.

Before coming back to academia, John Clark had a wide array of experiences that have helped to shape his notion of supervision. It is these experiences as a one-time practising painter, art history researcher and teacher, translator and even a stint as a television journalist in Japan, that have come to colour his perceptions of how research and knowledge are produced in university settings.

John prefers the term 'advisee', rather than 'student' to describe his supervisory relationships. Emphasising that he too learns from the process of supervising, John wants the interaction to be mutually profitable, where the end goal is their PhD.

### Critical framing

John is interested in the ways his students conceptualise ideas. He challenges them to think carefully and critically about the context in which their theory-making occurs, so that it will survive the process of examination.

The most important thing a supervisor should do – whatever their methodological, ideological or intellectual position, which can often be very different from the student's, is to defend them against critique. That's the basic issue – you are in a sense the first enemy, but also first defender of the thesis.

It is at the conceptual stage that John guides his students through an understanding of the originality of their research. He argues that there are two levels in which knowledge can be deemed 'original'. The first is through an understanding of its factual bases. Documents which nobody else has examined are brought together to make an argument.

*but also first defender of the thesis*

# Developing partnerships

The second is where they generate ideas which inform and in a way, control the selection of data. There's a certain interaction between the level of ideas they bring forward and the kind of material that they have empirically constituted. I work with objects, with ideas about objects, with real world situations and how they generate new kinds of objects.

## **Supervisory expectations**

To begin this process, John expects his students to submit a series of research and writing plans. Each of the plans has a distinctive purpose. The research plan is essentially about setting knowledge-oriented targets, establishing argumentation and the production of evidence. The writing plans form the sequence in which the thesis is actually written. While John supports students' explorations around these two key tasks, he expects some progress to be made around the end of the first year.

The first chapter should be an application of what they've read to an initial outline of the problematic. And that should be completed by the end of the first year. I like them also to begin thinking in terms of data files, methodology files and argument files. This helps to focus their reading and thinking towards a purpose in the thesis. I also encourage a working jottings file, segmented according to chapters.

## **Responsibilities of a supervisor**

There are problematic areas in supervisory relationships. John identifies at least two that he often has to manage quite carefully.

The really difficult area of supervising is where someone, despite their ability, is not outputting at the level at which they should. The second is where they output in a way which is unnecessary.

Because research work is more often an individual endeavour, John regards part of his role as providing 'road map reality'. This kind of check acts against what John feels is a tendency by research students to over-theorise or over-trawl.

PhD students read a lot and gather a lot of material and sometimes they over-generate. These seem to be a well-known traits of PhD people.

John is aware that the relationship needs to be a robust one, characterised by frankness, trust and an understanding of the features of the other's personality. However, in the end, his role is to help students navigate through the process of completing their research.

# Chris Chapparo

Occupation and Leisure  
Sciences

As a supervisor of 6 years in the School of Occupation and Leisure Sciences, Dr Chris Chapparo brings to her supervision practice, experience in clinical-based settings. Chris employs the term 'craft knowledge' to characterise the common ground in which her students will often find a language to talk about their research. In Chris' experience, it is craft knowledge that has the potential to allow supervisors and students to make connections with each other and the culture of research.



*...Find out the meaning students*

Chris Chapparo draws heavily on her own clinical experiences as well as her background as a therapist for direction to her supervision.

I actually cut my teeth on clinical research when I was a clinician myself. I had a couple of good clinical research mentors. They in turn, became supervisory models for my supervision of people doing research that isn't in a laboratory, but out there where things can go wrong. The first thing I learned to accept as a supervisor of clinical research is that maybe the (student's) research isn't going to be carried out the way I want. We work through that and deal with it before it actually happens by developing alternate plans and ideas before the students feel like they've failed, or frustrated that they can't carry out exactly what they plan to do.

Reflecting on her experiences as a therapist she adds,

I think what happens in both the research and the supervisory process is the same thing that happens in a therapy situation for therapists. As a therapist, you find there is a dialogue, or negotiation process between you and a person you are treating, and you find this dialogue can go two ways. On the one hand, you can be the person with the power and say to the client, 'in therapy you're going to do this and this. If you want to get better you have to do what I think you should'. I can do the same thing as a supervisor and say, 'if you want to get a degree then you have to do this, this and this, and you have to do it my way'. Or as a therapist I can be client-centred and say, 'we can do any amount of these things. What do you want to look like when you leave hospital? What's your main priority? – OK let's work on that'. It's the same with a student, 'what do you want to research? Why is that a particular topic of interest?'. I guess it's trying to find out the meaning that they attribute to their involvement in research. What is the meaning or the purpose behind what they're doing? I've learned not to take it for granted that students want a piece of paper. Many have deeply personal learning objectives that they want to express through research. Others just want the degree.

Using the connection of their clinical backgrounds is one way Chris develops a student-supervisor relationship that gets to the heart of what a possible research question could be.

‘Talking shop’ is the common ground that we have to start from. That then leads to talking ‘desires’ and what they want from the supervisory experience. That leads to understanding the expectations, boundaries and limitations of the relationship.

Starting with their common experiences, Chris asks her students to go away and just brainstorm research possibilities by writing down all of the possible topic areas. “We come back together and look at it quite ruthlessly and gradually narrow it down. This usually ends with students deciding ‘this is it - this is the topic.’” This process can take a lot of work. Chris finds that if this part of the process is not given enough attention, students falter or lose motivation in later stages of the research process.

### **A safe yet challenging environment**

Chris believes the only way this type of negotiation can be carried out is if there is give and take in the relationship, even on decisions about the topic that’s going to be researched and how it’s going to be done. She describes this process as creating a ‘safe thinking environment for the student’.

Somebody who’s not in a safe thinking environment has to constantly be worried about... where am I going?, what am I doing?, is this what she wants?, and against whose opinion am I doing it? People can’t think in that environment. At best, their

thinking is an attempt to ‘fit’ with someone else’s. A safe thinking environment is not devoid of some effort and intellectual challenge. However, there has to be what I call a ‘just right’ challenge. I don’t believe the safe environment is the same as a permissive or lazy environment. It’s a safe environment for thinking that demands both divergence and convergence of ideas.

Chris recognises that there is a fine line between pushing and challenging, and that the supervisor to some extent has to control the process. While the student charts the course, Chris maintains a clear idea of where that course needs to go.

A lot of the research that I do with students is clinic-based, so it has to deal with not only the effectiveness of therapy procedures, but the discovery of why therapists choose particular procedures. What we’re talking about is the craft of therapy, the reasoning behind therapy or therapist thinking, why people do what they do, and trying to come to an understanding of that dimension of therapy practice.

Knowing where the research is heading and having an environment in which the student and supervisor can work with each other, allows Chris to challenge the way students’ understand their research. “It’s not the critique itself that’s important. It’s facilitating their own self-critique strategies – making sure this self-critique is well modulated.” As an example of this modulation, Chris acknowledges that there are times when students focus their research thinking too broadly and she tries to help them realise that there’s also a need to narrow down, to consider the fine details. At times when they’re focusing on the fine detail, they need to also understand the broader picture and see where their research fits into a professional and theoretical context.

I like to think that this modulation process which I facilitate becomes their strategy for ultimately monitoring their own research activities. I can slash and burn anything they write. I can say 'do this, now do this, cut that out, give me the disk, I'll do it'. Ultimately, if the purpose of this person coming in to do a research project is to learn about the research process, then unless they develop their own thinking, modulating, and evaluating strategies, no amount of critique from me is going to help.

## Collegial Support

Good role models and local support gave Chris the confidence to make a commitment to just get in there and do it.

If you make mistakes, then you make mistakes, and if you don't, you don't. All supervisors start somewhere. We all make mistakes in the beginning. The first two student projects of mine were bigger than Ben Hur. I had to do it (supervision) to find out exactly what the boundaries were, and learn from that. Then I learned to set those limits right from the beginning, in a sensitive way. You have to jump in with both feet and do it yourself.

The model of supervision came from thinking about her own supervision, at a time she herself was learning to supervise.

What ultimately helped me was doing a PhD at the same time I was starting to supervise honours research students myself. I felt I was close to questions they posed and understood the difficulties that they had. I felt that I wasn't past that myself yet so I almost pre-empted some of the things that were going to come up in the supervisory process.

Chris describes her own supervisor as a good role model.

I had a very good supervisor. I don't think I mirrored his particular style, but I understood what it was that I was getting from my supervisor as a research student. It was helpful to be able to do the same thing with my students. I learned that it was important to sit down and really listen, to facilitate rather than to lock the student in to what I was doing and thinking.

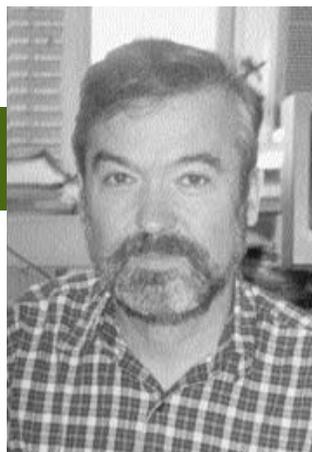
It also helped to have a collegial support network.

This can be anything from co-supervision to going and talking to somebody about supervision. In talking to colleagues about supervision I learned that I had to be clear about whether I needed advice about aspects of supervision, or the student's research. People are much more inclined to talk about research methodology than supervisory methodology! In this environment where you have to stand up and talk about yourself, it's hard for people to say, 'I'm not confident with supervision,' and to say, 'I'm not sure what I'm doing here'. Somehow we need to get over that, so that we're able to talk freely about the specific supervisory problems that we have. Sometimes the support needed is just to ask 'I did this, is that OK?'. Supervision is about setting up the same safe thinking environment for the supervisor as the supervisor needs to provide for the student.

# George Bacskay

## Chemistry

Dr George Bacskay foreshadows the notion of a collaborative spirit in his supervision, and in scientific work generally. In his 25 years of supervision experience within the School of Chemistry and in the general field of computational quantum chemistry, George attempts to develop the imagination and inquisitiveness of his students. Through working closely alongside students, as well as encouraging their abilities to formulate and analyse problems, George's supervisory approach is to be part of the team at every level of its research activity.



### Exploring alternatives

It is in the lives and activities of prominent researchers that George Bacskay finds inspiration for his supervision.

I've read numerous accounts of scientific work and research work, and when people reminisce about their PhD years and early scientific careers, there is always something interesting that one can pick up about how they related to their supervisors and collaborators, and how it influenced their work.

While he does not consciously draw on the experiences of Nobel prize winners, George suggests that it is interesting to learn about other people's attitudes, approaches to their work and the experiences they discuss.

This wide reading gives George an appreciation that there isn't just one single way in which you can do things. With his own supervision he finds that,

... there are lots of different ways and you have to find the best for each student. The only way you can do that is by at least initially, trying several different ways. And I think this goes for undergraduates too. If you present them with a new concept and then you say, 'well, we can explain it this way, we can explain it that way, or we can explain it yet another way. Now, are these very different or, what are the connections between them?' So you try to find the connections and fill in all the gaps so that we get a much fuller picture of the overall problem and understand it just that much better.

## Transition from undergraduate education

Exploring the alternatives is something George encourages his students to do as well.

I think in the first instance they might have to be prodded a bit because very often at the end of their undergraduate training, students have learned what they've been given in lectures, and they've become a little bit didactic... this is the way, this is the explanation, this is what it says in the textbook, this is the right way. And at least initially, you have to start questioning their belief systems, even with some things that they think are perfectly well understood. I encourage them to ask questions in a different way so gradually they realise that yes, all these things are often pretty open to further analysis.

George describes the first stage of his supervision as encouraging self-development of the imagination. "It doesn't matter if it's wrong, let's try all kinds of different things. Then, let's analyse them and see which ones are worthy of being taken seriously and which ones aren't." One of George's goals is for his students to realise that science is open to alternatives.

In science you never ever prove things. You can find evidence that will support a certain hypothesis or a certain model, but you don't actually prove things in the same sense that you can prove a mathematical theorem. This is something that often students don't appreciate or understand at the beginning.

*We did pursue work in other areas, relying on collaborations with other researchers (both within and external to the department) in order to explore a wider range of problems, extending our areas of knowledge. In fact, most of the projects offered by my supervisor were in conjunction with other academics. - PhD student*

He likes to see his students taking the initiative more and more as they progress through their research years. "Initially the project is outlined by the supervisor and we then encourage the student more and more to offer their own input. Gradually, they actually start taking the research in new directions by asking different questions from those the supervisor posed initially." In the beginning he sets the scene by discussing the context of the scientific discipline with his students, along with the well-established rules on how to conduct research.

There's certainly scientific method, logic and analysis, and questioning. That's very basic and everybody needs to assimilate and learn that. Those are important techniques. When you finish a piece of work, whether it's a measurement or a calculation, you should be able to say with confidence that these are the results of my measurements, that everything has been done rigorously and as accurately as possible, and that problems and sources of error have been eliminated as much as possible. But nevertheless, appreciate what other possible sources of error there could be in order to question the reliability of the results obtained.

## Establishing a collaborative spirit

At the same time as encouraging an exploration of alternatives, George stresses collaboration in research. As he sees it, "when students get their PhDs and become scientists, they will be in positions where they will have to collaborate with people. The best scientific work I think is always achieved through collaboration, through a continual exchange of ideas". George describes this kind of supervision as following the best traditions of scientific collaboration, because students and the supervisor become equal partners to an extent.

*He also gave great guidance to us when it came to writing journal articles for publication. As a result of these skills in scientific writing, producing a thesis at the end of my candidature was greatly facilitated. The assistance that he gave to the proofing of the thesis was also much appreciated. - PhD student*

I'll be collaborating on all aspects of our joint research, including the bits which are perhaps less interesting and more mechanical. As a rule, I wouldn't ask a student to do anything that I wouldn't take upon myself. If it's something that's horribly boring, OK, we agree that it's going to be pretty boring but that it's got to be done, so let's share the work. I do parts of it and you do parts of it.

Being involved in the research is one of the things that George enjoys and believes is good practice in this sort of relationship.

Now, that's partly because it allows me closer contact with the day to day work, so if there are any problems, I'm aware of them as well. I might actually become aware of these problems earlier than the students do, but it means I am much more appreciative of the actual day to day work as it progresses.

He adds,

I think that way, students will accept anything asked of them much more readily and they realise that I'm not just dishing out some mindless task for them to perform. I'm willing to participate in it and get my hands dirty along with them. So in some sense, we really do become equals in actually carrying out the research work and I think that's good. I certainly function much better that way and I think our relationship therefore is much more a relationship of equals rather than student and supervisor, boss and subordinate. Those distinctions disappear.

George says it is understood that it is joint work, and that when it comes to publication it will be jointly published.

I think in 99% of the cases, the student would be the lead author on the paper because they would have done the major part of the work. Their name actually appearing first on the publication is a signal that they played a leading role in the project and that's I think as it should be.

George believes that for students in the final stages of their PhDs, this is the only fair way to publish.

Students will come to me with ideas they have had which they want to discuss, see what I think and whether we can follow it up. In such cases where students initiate the work as well as largely bringing it to completion, the supervisor effectively takes the role of somebody who will look at the results and perhaps make suggestions, and in a way perform a kind of quality control.

## *...Helping the candidate develop a self-criticality*

### **Brad Buckley**

Sydney College of the Arts

Associate Professor Brad Buckley has been teaching and researching at the SCA since 1990. His experience and expertise in contemporary art have led him to argue that supervisors must create a nurturing environment in which students can engage in their research, whether a thesis or studio-based endeavour. Brad is also interested in facilitating amongst students, the capacity for critical discussion and reflection. This, for Visual Art students, means acknowledging that their work contributes to ongoing debates about/in contemporary art, but also to a broader understanding of knowledge, culture and society. Brad recognises that these activities are part of developing a collaborative aspect to his supervision.

Brad Buckley has been influenced by his own experiences in the US where regularly scheduled access to the supervisor, together with other staff in the Department, was actively encouraged. Brad attributes an added emphasis of culture building to the high level of structured course work, which is a part of all Masters (Research), and PhD programs in US universities.

There is a sense of cohort, a group of peers. When I went to the States, it was a very different experience from England because the Americans operate on the possibility of potential. It is a very positive, very nurturing environment and I think they're things that I've tried in some way to develop at the College.

This supportive College environment is a stark contrast to Brad's time as a postgraduate student in England, where "criticism was about the negative capacities of students". Brad suggests the difference may be a culture of education, but it may also be because,

... in the US, students pay very high tuition fees for their education. At schools and universities, such as, Rhode Island School of Design, Yale or Harvard the yearly tuition fees are about US\$35,000. Because of this, institutions are more responsive to the needs of their students and are generally better managed as institutions.

### **Critical Debate**

Brad acknowledges that the whole question of a PhD in visual arts is still subject to debate. However, these debates are not dissimilar to those objections raised when a research masters in the visual arts was introduced in the mid 1980s in Australia. Many students who decide to return to postgraduate work in this field often wish to engage in a more formal and critical discussion of their work. This need arises in part, because it can be a very isolating experience working as an artist in a post-institutional context. The art school or institution can and does, offer support on many levels.

Within the context of contemporary art, whether writing, dance or music, all these activities are part of our living culture and embedded in that is a body of knowledge that is as vital as the body of knowledge created in science. Visual art from the first academy, the Accademia del Disegno founded in Florence in 1563, placed art amongst the humanities and because of that tradition, the Europeans consider art and the artist in different ways. In Australian society, which until quite recently (the 1970s), located the education of artists in TAFE, thus making the development of handskills the principle focus over the discursive qualities of art. It is this history of art education in Australia that percolates through the debates about higher degrees in the visual arts.

However, postgraduate education in art schools contains some interesting tensions, which Brad considers quite productive.

There is a difference between enrolling as a student and thinking you have a position and then finding yourself exposed to other propositions. Sometimes students return for the credential. At the outset, that is often their only reason but in my observation they are altered or changed by the experience of undertaking a higher degree, even if they resist it. In having access to different views and a range of fora, there can be a real agency of exchange between these two groups. As a supervisor, I consider part of that journey, or the educative process is to help the candidate understand that there is a field of critical study in which their work operates.

When students are working in the studio, Brad argues that they are engaging in a speculative activity. In fact, one of Brad's roles as a supervisor is to assist students to understand that their actual physical act of making in the studio is tantamount to the creation of new knowledge.

Helping the candidate to develop a self-criticality about the making of their own work and also the framing of debates that they're engaged in, is also part of the supervisor's role. Therefore, while they are engaged in the studio with certain concerns, they are discovering in the writings of philosophers or cultural theorists that similar or parallel issues are being explored, and that these are also essential for their development. I think that this experience is very important and fundamental - that they understand there is a body of knowledge and a history that they are part of.

## Providing support

While not too dissimilar to other disciplines, art schools have historically been places that are constantly inhabited by students. Creating a supportive environment where students' work is valued and nurtured is important to Brad.

One of my colleagues described art school as a domestic environment because the students are in the studios all the time. There is a lot of informal contact as well as formal meetings, and the formal meetings tend to be in the studio in front of their work, so you are creating the discursive nature of discussions about their work. With many artists, there is also a high level of subjectivity and often it is driven by their own ideas about a whole range of issues.

Brad sees a supervisor's task is to be supportive enough to allow this process to occur in order to help students develop their own critical field of inquiry, or voice. One of the most important aspects of Brad's supervisory responsibilities is letting students know that they are not alone, that there is a body of activity, debate and discussion that should be accessed to help support their work. This

can be achieved through talking with relevant artists, guiding students through appropriate literature and looking at art work. As Brad describes it, “learning for an artist comes by actually looking at art as well as reading parallel and discursive writings”. In Brad’s experience, a supervisor can still be effective through a focus on the process even if there is no direct specialist knowledge of the topic.

I’m thinking of one candidate a few years ago whose work was very politically charged. I did not have any particular knowledge of the area. It was, however, an interesting journey together and I think in that case, I was able to offer someone to talk with in a way that was not so engaged or biased about the topic. We could have a fairly open discussion. It’s all contemporary art at one level, but there are so many positions and that can be a learning experience for a supervisor.

## Formal Processes

With a large number of students to supervise, Brad has developed strategies that help him to focus on the process of postgraduate research.

We have a formal arrangement where we meet regularly over the semester and in my case, I’ve found it very effective to write to people at the beginning of each semester with a regular time and date.

This more structured relationship with postgraduates emerged from a series of workshops developed in collaboration with the Learning Centre. Brad’s

experience overseas has taught him that a structured relationship with candidates can be mutually beneficial even after the postgraduate experience.

It is rather interesting that in the Government’s White Paper on postgraduate education they have recommended that higher degrees should also prepare candidates for the transition to post-institutional life with a range of courses, including communication skills. As a supervisor, I try to support the candidate in this way by helping them develop strategies, like exhibition proposals, that will assist them as emerging artists as they move beyond the institution. The experience is a very positive one, seeing someone actually moving beyond the institution into the art world.

# Lloyd Dawe

Educational Psychology,  
Literacies & Learning

Lloyd Dawe is an Associate Professor and Head of the School of Educational Psychology, Literacies and Learning in the Faculty of Education. In this role, Lloyd places great significance on the development of a research community of scholars, made up of staff and students, which emphasizes that a PhD is part of a life experience in which students undergo a process of intellectual and personal change. Additionally, Lloyd feels that sharing such changes can be the source of much wonder, excitement and mystery as new knowledge is created. He urges supervisors to account for this experience within the research process.



Lloyd Dawe argues that there are important benefits in providing a systematic framework to allow staff to learn about the responsibilities involved in postgraduate supervision. He himself learned about the principles of supervision, initially through his own rich PhD experience at Cambridge and later from academic colleagues at Sydney.

I could join up with someone who was in my field. I'd sit in on a supervision meeting or be invited along. We'd talk about how the student's work was coming along, or a problem in the methodology. So I could learn by experience and that was very helpful for me. You can pick up a lot of stuff on the run from individual supervision, but it makes a difference to be mentored by people. Good people who are friendly and collegial, who value each other's work.

As Head of School, Lloyd recognises the significance of building a research community where staff and students are partners in a collegial relationship. Students need to feel the impact of this collegiality through personal encouragement and support for resources, conference presentations and travel. Lloyd takes every opportunity to talk one on one with students about their postgraduate study. He likes to ask questions that challenge students to think about the PhD outside a framework of credentialism, believing that this kind of understanding will help students to learn about the process of supervision, and for supervisors to provide better support for their students as learners.

## Acculturation

Another important responsibility is for supervisors to build and maintain an active research profile. For Lloyd, this is really about being an active researcher so that students can see

## *...Build a research community where staff and*

the benefit of a partnership. Supervisors should also model scholarly practice. This involves developing some of the much more generic capacities emphasised across the higher education sector.

It's not just about developing people with really good analytical skills who can write well. It's much more than that, because they have to proactively take their role as either future academics or researchers. They have to be able to communicate their ideas. They have to be strong people, trusted people. They've learned about supervision, they've learned about empathy, responsibility, ethics, communication and writing.

The actual production of the thesis is only one component in the development of a lifelong learning process. Lloyd is keen to encourage the perception that there are larger forces at play in relation to both how his students develop and how supervisors conceptualise their responsibilities. Supervisors need to locate their students' research within a broader context.

It's really got to be far more than 'Let's have a look at the chapter, do the analysis, get the ideas straight, write it up again and then that's it.'

### **Exploring the boundaries of knowledge**

When concentrating on the actual production of the PhD thesis, Lloyd maintains that there are some crucial questions he asks his students in order to guide their thinking on the way their research provides an original contribution to knowledge.

The thing that really stamps a PhD (and there are PhDs and PhDs) is originality. The really good PhDs, the ones who in fact are pushing back the boundaries of knowledge, are coming from younger minds who are at the peak of their intellectual capacity. I want to foster that originality, because in my experience, what you tend to do as a supervisor is to move away from creating original ideas and do more of the synthesis, commentary, critique and analysis. To me, generating new knowledge is about fostering the ability to ask questions about things that are taken for granted. That's a top priority.

### **Co-learning**

Lloyd argues that this supervisory framework is essentially about changing people's conceptions of themselves as learners. With an interest in discovering how students are affected by the research process, Lloyd believes that a parallel agenda is taking place at the same time. This is described as 'intellectual ownership', where students make decisions about the kind of learning taking place.

Over the three to four years that a student and supervisor are together, there's a growth and a development that is about people's capacity to work independently. I suppose those things have always been there, but I think in more recent years it's getting to be a balance of that with the traditional academic side. For instance, if something came up whereby we were going to publish something, that suggestion would have to come from the student. It wouldn't come from me. When that's up front, they understand that getting their PhD is part of a much larger picture, and they have some control and responsibility.

# Developing partnerships

*students are partners in a collegial relationship*

## Providing a supportive environment

Underlying Lloyd's supervisory approach is a deep intellectual and empathic relationship that is about valuing students' work and the journey they undertake. While the supervisor is important in encouraging and supporting this journey, the final finished product belongs to the student.

In the end, it's got the student's name on it, nobody else's. Whether it gathers dust, or whether people pick it up and say 'Hey, that's a really fine contribution' will depend on how well the supervisor sets up the learning environment so that the student will grow. I'd say we've got to give more support to the individual student, where they are at in the process and be willing and flexible to change to enable that growth to go ahead.

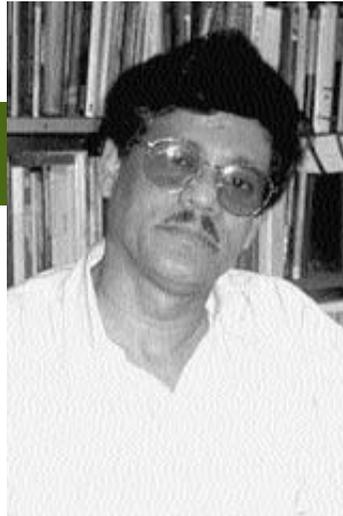
For Lloyd, a focus on the learner is paramount.

I think that learning is a mysterious process. There's something quite magical and awe inspiring about being a learner. If we can help them to capture the awesomeness or the wonder of learning, that to me would be something to pass on to everybody else.

As a supervisor, there are some key ways to facilitate this process. Lloyd likes to make sure his supervision engages with students' individual learning styles.

Not all of my students are the same. Some of them are very keen on developing the deep intellectual issues and they want to reason and argue and they love to write. Other students are more interested in ideas, sometimes the most airy-fairy

sort of ideas but nevertheless, they are creative people. They're far more interested in creativity and generation of ideas than perhaps following them through in depth. Students need both analytic skills and the capacity to take a more holistic view. It is a matter of engaging with students to ascertain if there is an imbalance. The goal is to develop empowerment through self-confidence, forging an identity as a valued researcher.



## Dilip Dutta

### Economics & Political Sciences

**Dilip Dutta, is a Senior Lecturer in the Department of Economics. With a background and expertise in development economics and applied econometrics, he has attracted a number of international research students (both undergraduate and postgraduate) mainly from South and South-East Asia.**

Dilip Dutta is a strong advocate for postgraduate research students undertaking coursework as part of their candidature. While this is not a requirement of the University of Sydney, his experiences with postgraduate studies at the University of California, Berkeley have convinced him that some coursework can be very helpful. As Dilip explains,

I always try at least for one semester, at most two semesters, to encourage the newly arrived students to take some coursework. They have often very gladly done so. It seems to have been really been very helpful.

Dilip's goal for the student is to understand the big picture before moving to the details of a thesis topic. He encourages his students to explore the field by attending seminars on specific subjects even if they are in other departments. In Dilip's view, it is always possible to link research problems to disciplines in other departments, such as Government and Public Administration, Econometrics, Economic History, etc. with Economics, and vice versa.

I usually ask them to take coursework somewhere other than the Economics department if they are interested in quantitative study. If they are interested in other methodological approaches or qualitative studies, they might think about choosing courses from other departments of the Economics faculty.

Dilip finds that students usually come to his department with a set topic. However, in most cases they don't really know where or how to start, the sort of techniques they would like to use, or much about the recent literature. "In my experience they usually stick to their research proposal, although there have been some changes in the application of some techniques or methodology, but basically they tend to stick to it." His department has a formal process set up for PhD students to help them learn more about these areas. For example, the department has a regular progress review mechanism in place.

## **Guided by methodology**

Dilip explains that coursework is basically for those students who would like to apply quantitative methods to some kind of practical problem. Most of Dilip's students have undertaken a thesis that is at least partly qualitative and partly quantitative. With such a large range of research methodologies used in the social sciences, Dilip spends considerable time with students discussing their choice of methodology from the very beginning. In order to achieve an appropriate balance, Dilip feels a student needs to grasp where their thesis fits within a tradition that best suits their direction or methodology. He tries to make a clear link between the chosen methodology and the literature review. Once the student chooses to do his/her thesis following a particular methodology, he has in most cases, been able to guide them to the related literature successfully.

Gradually, Dilip then moves the student toward the specific area they would like to explore. He describes this as an intensive stage of the process in which he constantly asks his students questions.

"I ask them to start with some point in the literature and try to explain its relevance to where they would like to go to." He describes this as a slow and sometimes frustrating process.

They can't wait. If it's testing of an econometric model, they come with their data. Sometimes they get stuck and sometimes they don't get any results. I always tell them, 'this is the way it goes, don't be frustrated. We all have gone through that kind of failure, and then one nice morning you will find that it's there'. So as you go on trying your best, you will eventually find that there's an outcome.

Dilip observes that there is a tendency for students to try and impress the examiners by using very high-powered mathematics. He has experienced external examiners who raise the question of relevance when they come across complex mathematics in theses. Dilip warns his students to think about the relevance of

formal mathematical/econometric models before going too far down that direction. He warns students that they,

... might need to use some mathematical/statistical techniques if the thesis requires some quantitative analysis, but make sure that this is relevant and appropriate for analysis of the problem at hand.

## **Hope and encouragement**

Dilip doesn't see it as his role to impose his views on his students unless it is absolutely necessary. It is only in an extreme situation such as a student misunderstanding the assumptions underlying a formal model, where Dilip might consider intervening. In this case Dilip would intervene simply to outline the impossibility of what they are trying to achieve in their research. Otherwise, Dilip sees his role as providing his students with hope and encouragement. He reassures his students that, "I will be working together with you, if you get stuck".

In Dilip's view, if he accepts a student to supervise, he has to be genuinely sincere and extend his help to ensure the student's confidence is built up. Whenever the student faces problem and feels a little bit down, Dilip might say to his students,

look, this problem is not a problem. You have to accept this kind of thing for the time being, but if you really try to do your best whatever the time constraints, my belief is you will be successful.

Dilip suggests that perhaps he has just been lucky because his PhD students have mostly been mature ones.

They are sincere, hard-working and basically they know their topic areas, at least in some initial level. Once they get some direction there is no way they could go backwards. They will always go forward, and they do.



## Peter Harrowell

### Chemistry

Peter Harrowell, an Associate Professor in the School of Chemistry, has supervised research students in the area of theoretical chemistry since 1989. His supervision practice works at creating a context where students' personal curiosities can find a scientific expression.

#### **Choosing the Research Problem**

Asked to identify the most important role a supervisor plays in the success of a student's candidature, Peter pointed to the choice of the research problem.

There is the quality of the problems that you're offering students, in both the viability of them and also their significance. They're both terribly important I think, certainly for a PhD where you want a student to commit three or four years of their life. You feel you have to be offering them something of real substance. Get this right and you can minimise many of the common problems research students' experience.

The ability to pick viable research problems and identify potential pitfalls essentially reflects, Peter suggests, the skills developed by the supervisor as a researcher.

#### **The Importance of Curiosity**

Peter also stressed the need to encourage students to develop and learn to articulate their own curiosity. He considers sustaining curiosity to be the single most challenging aspect facing scientists in a career involving independent original research.

There is a very strong tendency in these kinds of institutions to inadvertently browbeat students. They'll often come through with possibly slightly naïve ideas about the things they find interesting, and it's too easy to say, 'oh that was all thought about 20 years ago', instead of trying to tease out where those sorts of things still open out into uncharted realms.

*It was fantastic working with someone who could encourage vitality, flair, deep thought, and hard work, all within a relaxed and enjoyable student-supervisor relationship - PhD student.*

To this end, Peter has found it useful to share with students his own experience of how something that interested him was turned into a researchable problem.

I think that it's really helpful for a student to understand how the problem they're now working on was sourced from a personal curiosity, rather than coming away with the feeling that they are just doing what everyone does.

### One-on-One Meetings

Peter's supervision is based around individualised interaction with the students.

I find my time with the student much more comfortable and better spent talking to each individually. There's nothing wrong with group meetings but I've just never enjoyed them. Our one-on-one meetings involve quite a lot of talking, once or twice a week sitting and asking them what they're doing, talking for an hour. Even if they haven't got anywhere with what they're doing. Even just reminding them if nothing else why they're doing it, where they're going and so on.

These meetings will typically address a number of general aspects. At the beginning of the project, Peter talks with each student to find out what they can and can't do, the areas in which they are confident or not confident. As for ongoing supervision, Peter described his own style as 'detailed and continuous interaction'. For example,

you make a very clear commitment in the sense that you're going to be with the student through this process. You are not a separate entity watching somebody

struggle through some maze or tasks. You have made a commitment to go with them on a journey, which means that if you say you'll do something, then you do it.

A student's interest and effort, Peter noted, are quickly dissipated if they are left either stuck or wandering lost without the assurance of a committed support.

Research students, particularly in Australia, also need to be encouraged to look beyond their own research problem and realise that there really is a community of people in the international sense working on the same questions. For Peter, what structures the whole supervisory experience is that "there is a community out there that are interested in their projects, that they are doing something of substance and that it really fits in and relates to the wider context".

### Supervision as Collaboration

Peter described himself as a collaborator with the student, an active partner in the student's project rather than just an observer. This approach, he noted, is probably standard, at least in the sciences. In practice, this means personally resolving obstacles in a student's project in which they have been unable to make headway with, and doing so in a timely fashion. This, Peter pointed out, is part of the education we provide our students.

A research student is an apprentice. In addition to doing it themselves, they need to be able see how someone with a bit more experience goes about a problem, make judgements about when to press on or to retreat and try another tack. That sort of thing. I guess I'd characterise this part of supervision as 'collaboration plus explanation'. The mix of the two will differ for each student.

# Ron McCallum

## Law

Professor Ron McCallum has been supervising postgraduate students in the discipline of Law since 1983, first at Monash University and now at Sydney. Ron, who has been totally blind since his birth, is the first blind person to have been appointed to a professorship in any discipline at any Australian or New Zealand university. Many of Ron's students are part-time students with full-time professional careers. Because of this, he recognises that there is a need to be flexible about supervisory arrangements. Part of this intervention includes incorporating the convenience of computer technology. Ron listens to thesis chapters through a synthetic speech mechanism, which is attached to his computer.



## *Understand and support*

Ron McCallum has a busy life as a part-time professor, part-time practitioner in a law firm and an adviser to governments. There are times when the pressure has led him to be a bit short with students. "I don't want to be put in any sort of saintly, negotiating pose. Life's busy and complex." This is also how he experiences the lives of his research students. "Most of my postgraduates are part-timers and the pace of their lives is busy with jobs, careers, young families etc." Juggling these competing priorities is a perennial problem.

It is difficult. It's career, children and relationships. We just talk about it and say, 'well what's the best way to manage?' One of the best ways to manage is to set some short-term, intermediate and long-term goals. For example, I usually say, 'I appreciate that you've got a case in court, but can we say that within a month you'll give me at least an outline of that chapter, and by that I mean I'd like to see an opening paragraph, ten major headings, and say fifteen minor headings and let's work from that? We can do a little bit at a time, let's just keep things ticking over, don't get overwhelmed, we all get overwhelmed at 3am, let's just do one thing at a time'.

Ron says these lifestyle pressures have led him to emphasise the emotional side of supporting his research students.

I get students who after a couple of years say they want to give up, and I say, 'well, that's your choice, but are there ways around it? Do you want a break? If it's overwhelming, can we do small things? A thesis is but a collection of paragraphs'.

He finds that if a student is not happy and feeling the topic is not worthwhile, then “they might as well not do it. They won’t do that well, and they’ll end up with families and work and careers that get put to the bottom and that’s no good to them and it’s no good to me”.

Having witnessed the strain postgraduate research puts on students’ lives and having himself grown up needing the help of others, Ron suggests the best chance for survival comes from co-operation and dignity.

I suppose that comes out in my background, but working with students at a high level has made me very aware of human dignity. That may seem a little strange, but we’re dealing with people who are researching and when you research and you write something, it’s like painting a picture or composing something. It’s putting yourself on the line to be critiqued. And that’s quite a vulnerable thing to do.

Even when giving feedback to his students, Ron is very concerned about human worth.

I think that it’s always easier to criticise than to paint a picture yourself. It’s important to appreciate the worth of one’s candidates and to help and encourage them, and to criticise them fairly and responsibly and to care about their work. That sounds like a platitude, but I care about my students’ work.

When the pressure becomes overwhelming, Ron finds his students are reassured by talking over their situation with others who have experienced similar doubts.

Sometimes I ring up previous PhD students and say, ‘listen, can you talk to X, she’s in the same spot that you were?’, and that can be amazingly good therapy for a student. The psychologists will have a heart attack. I’m not trying to give therapy, but it’s just that they can ring up someone who’s now a doctor, and for them to tell the existing student that they almost went crazy, all the things that the person’s thinking they thought in their position.

## Encouraging growth

With most of Ron’s students studying part-time he doesn’t see it as his role to chase them about deadlines.

When we’re dealing with doctoral candidates who are fairly senior people, we have a discussion and I say, ‘look, you’re busy with your career, I’ll keep in touch with you from time to time but the real responsibility is for you to do your work on time’. If I don’t hear from them for a few months I try and call them, but when they’re at doctoral candidate level, particularly when they’re in full-time employment, I don’t chase them so much.

Neither does Ron see it as his job to find information for his students.

Most of my postgraduate students are very skilled in this area, and rather than me being the person to give them information, or give them paths, they find the information themselves more readily. Because I’ve been around a long while, I find that I’m able to play the role of facilitator and suggest to them that some paths down which they are going, holds information that is likely to be fruitless, and that perhaps other paths are preferable.

Ron works on encouraging his students to grow and to bloom in the way they want to write.

Generally most students realise that their thoughts tend to move when they're beginning a topic. It really is a matter of keeping reasonably close contact with the student, and being accessible, and making sure that they're confident enough to tell you, and that you're competent enough to see the signs, if they're starting to get disillusioned or they can't make sense of things.

## E-mail

With most of his postgraduate students employed in very busy jobs, Ron recognises that time is at a premium. E-mail has become an important mechanism for staying in contact with his students.

“It's important that we liaise closely and that they e-mail me material and that we keep in touch. I say to them ‘if you do your work, I promise that when it's given to me I will read it as quickly as possible, so that while it's fresh in your mind we can have a discussion’.

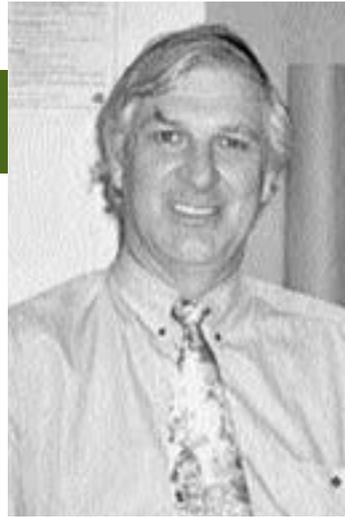
In cases where his students frequently work interstate he would speak on the phone.

The student would e-mail me drafts and we would arrange to meet. We would work out our agendas beforehand, followed by e-mails, so that we could meet and not waste time. I could send preliminary comments by e-mail and even if I didn't have time to write them in a fulsome manner, that would give an idea of my views and the meeting could take place in as little time as possible.

# David Smith

Social, Policy and Curriculum Studies

Writing, teaching and researching in the area of reflective practice in Education, Associate Professor David Smith notes that supervision is about establishing an effective working relationship. David achieves this through facilitating an environment whereby students participate in their supervisory relationship as part of a community of learners. Using the notion of 'eldership' to describe the supervisory relationship, David argues that this can help to relocate supervision to be about a process of co-learning.



## Building a supportive environment

One of the most important aspects of a robust supervisory relationship is for students to find a supervisor with whom they feel comfortable. David Smith is particularly conscious of the impact a good working relationship can have. His advice to students is that,

you need to find someone to work with, whom you can be honest with and whom you feel you can risk and trust with. Now ok, they need to know something about your topic. You can have somebody who knows the most about any topic you like but if they haven't got the people skills... Because to me, that's what effective supervision is about. It's about effective communication. It's particularly about listening to what people are saying and even listening between the lines.

David argues that it is crucial for supervisors to build confidence in their students. At the beginning of the candidature, he tries to ensure that his students are feeling positive about their candidature so that they have some vision of a successful completion at the outset.

I begin with the attitude, and I express it to them very clearly, that we're going to be successful in this, we're going to succeed, because often people who are beginning a research degree are hesitant and lacking in confidence. And the whole idea of that journey is to gradually build their confidence. I make them believe that this can be done and that it is not something beyond them. I don't see this process as a baptism of fire or torture. That's the last thing I want to do.

## Group supervision

Many of David's practices centre around the notion of 'eldership'. Similar to mentoring, David encourages his students to form connections with not just their supervisors, but with other students. In his view, these connections can help form a supportive and co-operative community of people who are learning together. In one example, David recalls that he,

...was supervising a number of women who were in different stages of their doctoral candidature. So we had some who were elders if you like in terms of having gone through the protocols, having worked through the procedures of the faculty about the thesis committee who knew what the ups and downs were. And then we had people who were in the middle and some who were right at the beginning. It was an opportunity for people to be supportive, to give constructive feedback about proposals they were developing, conference papers they were presenting, applications for grants and draft chapters of their theses.

Despite the differences in the research focus, David argues that what united the group together was a struggle around issues of verisimilitude. David describes the effect of this way of working.

What happened was that it was a group where people started to connect with one another, and then they connected with one another outside the supervision context as well. Some of the group were academics from different institutions and different faculties. There was a lot of sharing about what academics do and academic work, so there was this nice elder-ship about the culture as well as about the research process.

## Co-learning

David senses that there has been a shift in the conduct of supervisory relationships, arguing that the notion of it being, "where someone sits at the feet of an expert" are fast drawing to a close. Instead, he suggests that a co-learning situation is much more in keeping with the kind of rapid changes confronting the higher education sector.

The areas that I have to work in as part of my professional work are incredibly wide and broad. It wouldn't matter if I worked 100 hours a week, I couldn't keep up with everything that's being written and discussed in every one of those areas. So it's much more a business of working together in a co-learning situation.

Preferring the term mentoring rather than teaching to describe supervision, David makes the following observation.

My view of mentoring is that it's a more experienced colleague who stands alongside a neophyte colleague, and in that more equal than unequal relationship, tries to help that neophyte have the same sort of understanding and knowledge about what it is you're doing as what the experienced colleague has. So it's not a power relationship in any sense at all.

Accordingly, the first part of the candidature is focused on talking through and shaping the work, refining it into a thesis proposal. David also likes to get from his students, a sense of how they like to work, and to establish roles and responsibilities. "We negotiate how we're going to work together. I say, 'well this is the way I work, how do you feel about that? Are there any other things that you would like to be part of this process?'"

David argues that these questions are important to the smooth running of the relationship. Establishing the roles and responsibilities of both the supervisor and the student early on, can be a useful way of clearing up any misunderstandings that can result from working together.

### **Clear expectations**

David argues that it is important for supervisors to have confidence in their ability to judge the quality of students' work. This is an aspect of his practice that came from the relationship with his own supervisor when he was working toward a PhD himself.

*My supervisor was a wonderful mentor and if you like, helped to shape both my research and writing and my career as an academic. But he did not know a great deal about the substantive area of my research. All of the responsibility for the veracity of my work was on me. I was the one who had to take responsibility for knowing that it was good enough and that gave me a lot of confidence in my judgement about academic work - PhD Student.*

Translating this learning to his own supervision approach, David sees his responsibilities in the following way.

My role is to make sure they understand the parameters and the context in which they're working, to make sure they have some sense of what it is they're trying to do, and to provide models and exemplars. In the latter part of the candidature, the role of the supervisor shifts to become a critical friend, close critical readings of final chapter drafts, critique and feedback and gradually shaping the writing to ensure the thesis is ready conceptually and technically as a coherent work ready for examination. The role of the supervisor changes from one phase to another. In the beginning it is about building confidence, relationship, trust and risking. It is about scaffolding. In the latter stages it is about removing the scaffolding and generating confidence, voice and independence.



## Joel Michell

### Psychology

Four and a half years as the Department of Psychology's Postgraduate Coordinator afforded Dr Joel Michell the time to think a little more seriously about the kind of reasonable expectations students may have of their supervisors. While in this role, Joel collaborated with colleagues and students to produce the Department's current Code of Conduct. Within his own context, Joel's supervisory practice reaffirms the importance of building a culture of critical exchange.

### Communicating expectations

It was Joel's time in the role of Departmental Postgraduate Coordinator that helped him to learn about the kind of problems students confront. This helped to guide his thinking about his own supervision. "I try and bring in practices that would head off these problems and deal with them before they occurred."

One example is the importance of describing to students the way a PhD is located within the current context of higher education at the very outset of the candidature. In explaining the realities of postgraduate research, Joel encourages his students to engage with the institutional constraints that become imposed on intellectual inquiry. He adds, "these days institutions have a stake in how long it takes you to get through the program and you're going to come in for a bit of flak if you go beyond the three and a half year period".

Recognising that this may involve students making compromises in the submission of their completed theses, Joel is prepared for the pastoral care role that may result as a consequence.

### Supervisory Meetings

The beginning of the candidature also provides an opportunity for Joel to explain his style of supervision. He meets with each of his students for one hour each week, as well as convening a group meeting. The group meetings serve a number of purposes. It allows students to discuss on-going work. Others may choose to read their thesis writing aloud or to talk about planning their projects. In this way, students become involved with each other's

work through feedback and critique. Joel argues that this is about “getting feedback from everybody, not just me but from the other students I’m supervising”.

*My supervisor isn't prone to giving away answers to problems which naturally has the effect that I am the one learning, and not just repeating parrot-fashion what someone else has to say - PhD student.*

Group seminars are also the time where Joel offers his own research up for scholarly scrutiny. He explains that there is a sound rationale for working in this way.

Students have the opportunity to be critical of my work as much as I have the opportunity to be critical of theirs. This generates more enthusiasm for research and developing critical skills where it’s more than just the supervisor monitoring the progress of the student.

This is a strategy that Joel learned as a postgraduate student himself.

I think the most enjoyable part of the learning process was in the seminar environment, where you had the opportunity not just to be criticised but to criticise others, including your own teachers and supervisors.

### Valuing criticism

One of Joel’s roles as a supervisor is to open students up to the value of criticism. He believes that this is a central characteristic of the transition from undergraduate to postgraduate education. Critical of an approach to education

that encourages students to seek ‘the right answer’, Joel argues that this tendency results in a perception where criticism as something to be feared.

Students think they are failing if they’re putting forward answers that other people criticise. I think criticism is really one of the main ways in which you make progress in terms of any intellectual enterprise. It’s OK to have good ideas, but you’ve got to submit them to criticism. You are never the best critic of your own ideas. You’ve always got to put them out there for the inspection of others, let people scrutinise them.

As a way of beginning this process with his students, Joel meets with all his research students as a group. While it is not compulsory that students attend, he argues that its purpose is to encourage the habit of critical inquiry and creative thinking. Grappling with the idea of how to teach creative thinking, Joel says that a start may be to guide students in the “practice of seeing connections between things that other people haven’t thought of”.

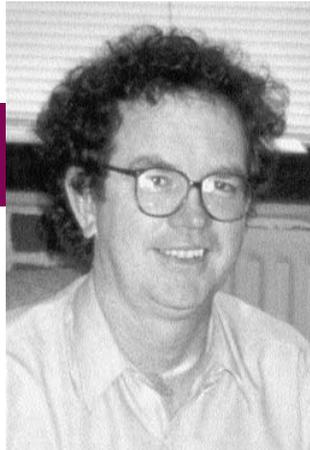
For students, there is a lot invested emotionally in writing theses and research papers. Joel is sympathetic to the feelings of anxiety reported by many of his students. But he argues that students must learn to develop the skill of receiving criticism within the spirit of scholarship, rather than viewing it as a personal attack.

*My supervisor is concerned with what I call 'real education'... The actual process of learning is given prominence. Because the intellectual value of the subject is what is emphasised, the result is increased motivation to focus on the subject - PhD student.*

# Peter Phibbs

Architecture, Planning  
& Allied Arts

Dr Peter Phibbs, a Senior Lecturer in the Department of Architecture, Planning and Allied Arts, describes his approach to supervision as 'directing traffic'. Learning from his own experience, Peter warns supervisors against the tendency to over-supervise. Now, Peter recognises the importance of providing his students with emotional support, allowing students to make mistakes and to learn from them.



*...Find the right balance between helping*

According to Peter Phibbs, nurturing someone through a long and very difficult process like postgraduate research can seem like a lot of hard work but he finds it incredibly rewarding when he sees people perform. When asked why he supervises Peter answers, “it’s just such great fun seeing someone develop through the course of a PhD. When you’re in the Great Hall and someone you’ve supervised for five or six years walks up the aisle, it’s an incredibly moving experience”.

To ensure that the student is doing their share of the work, Peter is mindful of what he calls ‘over-supervision’. By this, Peter means finding the right balance between helping students and letting them do the work themselves. “Like a lot of students you get, we get a lot of part-time PhDs just because of the nature of the discipline. The problem for students isn’t that they can’t do it - intellectually it’s not the main problem. The problem is nurturing someone through a very difficult and long process.”

## Guiding students

It is the case that some students basically require more help than others. Peter compares this to directing traffic, where he is giving students pointers, changing their direction a little bit but basically the student is doing most of the driving themselves.

Obviously, it’s hard because some students are very different from others. Some, you’ve got to spend more work on the technical areas, but hopefully if you’re getting good students than there are fewer requirements for that. It’s a matter of guiding people, telling them the right things to read, helping them at the conceptual stage. But the best result is when they’re doing a lot of that discovery themselves.

Peter sees the emotional side of the supervision relationship as being very important. He insists this isn't counselling students about what is going on in their life. Rather, it is a matter of helping them see that postgraduate research is a difficult process, and sometimes the supervisor has to support them in ways other than giving them intellectual advice about their piece of work. To do this, Peter suggests that it is up to the supervisor to pick up on the danger signs for when the student needs help.

Looking back over the students I've had over 10 years, the basic sign really is that they stop performing. You get a good student that has met deadlines and been really on top of things and all of a sudden you ask them how it's going and they scowl at you, or they don't want to engage in any conversation about it. A lot of the time, that's when to march them in and have a talk about it.

Peter's solution is to counsel students that they might be working too hard.

You've actually got to harass some people to stop work. I was co-supervisor to one student who I don't think took a weekend off in three years. He was at the thing every weekend for three years. And that's not good for anyone. Your brain can't perform in that situation. It does seem strange, but in that case telling that person to down tools for a while was a responsible thing to do as a supervisor. Sometimes the best thing is to tell them to have a break.

Most PhD students will hit the wall at some time during their candidature. One of the things a supervisor can do is to warn students about this and to tell them it is a normal part of being a PhD student and that they will get through it.

## Setting ground rules

To help Peter pick up on the danger signs of when students are not performing, he stresses setting some rules at the start of the process. In Peter's case, this is actually saying to his students, "if you've got some ideas about how you should do things, I'm not going to say that's the idea you should pick. I'm basically going to sit down with you and talk about the pros and cons of the various options and help you make a decision. But I'm not going to make the decision for you".

Peter thinks it is important to have those conversations with the student early on, clarifying procedural rules such as when meetings should be held, what is required of them and what they expect from you.

Ultimately, he advises, "the thing you've got to convince a student of by the end of the PhD is that it's likely that they'll know several volumes more about the topic than you will. What you're trying to do is tell them fairly early on, the rules of the engagement. I'm a guide but they have to take responsibility for a lot of their learning".

# Elise Tipton

## Asian Studies

**Dr Elise Tipton has been supervising students since 1989. Elise's supervision practice focuses on broadening students' understanding of their research to include an appreciation of professional disciplinary perspectives and techniques. Through concentrating on a more scholarly approach to students' work, Elise is able to effectively manage the supervisory process.**



*...There's more than one*

Elise Tipton hesitates slightly on the question of learning about becoming a supervisor. She prefers the term 'adviser' rather than 'supervisor', a term she picked up in North America while completing her own postgraduate study. Elise sees a different emphasis behind these two terms.

I prefer 'adviser', because it indicates that the candidate is already thinking that they're going to be an independent scholar/researcher. They need to start making decisions on their own, planning and organising their work as much as doing the actual reading and writing. Because I have had longer experience, I can be a guide and adviser and point them in the right direction. What they need to develop is independent research, thinking and writing skills.

As students in her Department tend to come with a topic already in mind and are generally very enthusiastic, what they lack in Elise's view is a kind of academic perspective. Elise's broader familiarity with issues in modern Japanese history and her extensive understanding of theoretical and methodological concepts means she can advise her students how to begin to think like a researcher.

In the beginning it's just a topic that they really are interested in. They don't necessarily approach it in a professional historian's way. That's the kind of training they have to go through. That's mostly in the first year, and that's where they often get that good grounding. Within twelve months, they come round, see what is required, and it's usually quite an eye-opener for them. They see that there are so many more different ways to look at their topic.

Depending on the student's background, this might involve reading broadly beyond their topic or looking at controversies within the historical profession on various issues relating to Japanese history. She explains that,

... just by exposing them to different interpretations, by making them question why there are these controversies, why the same sort of events are interpreted in different ways at different times, is in

# Managing the process

## *way of looking at a problem*

itself a way for them to see that there's more than one way of looking at a problem. This often means that they no longer just read a book and take that to be the chief authority.

### **Developing critical thinking**

Developing as a researcher involves more than being exposed to a broad range of views, but also developing the ability to think critically.

They are intelligent, that's why they were accepted in the first place. It's just making them much more aware of history being a matter of changing interpretations and perspectives, depending on the time of writing and the perspective of the historian.

Elise insists that her students all come to topics that are original in some way.

They often lack confidence even until the end as to whether they're actually doing that, but that's what they have to do. They can't do something that's already been done. So obviously when they're doing reviews of the literature, it's to find something that's not been done, or to find something that can be done a different way, or to ask a question that hasn't been answered yet. If you begin to think critically, originality and the contribution to knowledge will just flow from that.

In her field of history, Elise suggests that,

... very often originality is not so much in discovering sources that have never been used before - Japanese scholars have much more time to do that, especially with the linguistic abilities that are required. But it is in new ways of looking at the material and developing a different interpretation. And that's why I say if they're critical about past scholarship, out of that's going to come something new. The end point for Elise is also when students are able to speak to a wider audience. "As soon as they finish their theses, that's exactly the way they have to think if they're going to publish a book. And it should already be part of their

thesis proposal - why is this a significant topic to be researched, why do we need a book on this?"

### **Planning the research**

Being an adviser doesn't mean Elise fails to enforce high standards.

I have been influenced by the kind of training that I had in the US in terms of what I require of my students. There, the emphasis is first of all on some coursework. Then you pass exams and then you are qualified to start your dissertation. Those students who I don't feel are quite qualified, or trained for research have to informally sit in on fourth year coursework seminars that I run in Japanese History.

An adviser also encourages students set deadlines. "We've talked so much about slow completion rates or lack of completion, so that's where the supervisor can keep them progressing, especially in the first year when they're trying to come to their thesis topic and when they're doing literature reviews. You see them quite regularly and have them write things up."

Once the student has decided on the topic and they are going deeply into the primary resources, Elise notices that it is often easy for them to get lost in just reading and reading and reading, and they think that there's never an end. "I think that's where the supervisor needs to make sure that they keep in touch, which does not necessarily mean every week." Elise summarises her approach as checking that they are writing and making sure that they are planning appropriately. "Obviously the plans can be revised", she says, but "you have to make sure that they have a plan. Otherwise they can be off and gone and you never see them for months and months and not know what they're doing."



## *...The delicate art of learning how*

# Tim Rowse

Government & Public Administration

Tim Rowse puts a great deal of emphasis on the process of writing as a way of negotiating the supervisory process. Previously a Fellow in the Department of Government and Public Administration and now located at the Centre for Aboriginal Economic Policy Research - Australian National University, Tim's concentration on writing within his role as a supervisor is born from his experience as a postgraduate student. His motto is 'write often, revise often and don't be afraid to throw stuff out'. According to Tim, it is the writing process that helps make the research task a tangible and manageable one for both the student and supervisor.

Describing supervision as the delicate art of “learning how to be supportive and critical at the same time”, Tim Rowse has found that three experiences helped him to develop this skill as a supervisor. Perhaps the most obvious was by being a postgraduate student himself. This is where Tim learnt what it means to write a thesis.

I draw on my own experience of writing quite a lot. I say ‘look when I was doing my PhD, I found it difficult to do this until I'd done that’, and it's advice which I feel is well based in my own experience.

One of the other ways Tim learnt to be a better supervisor has been by being an examiner.

I've examined some really bad PhDs. Bad because I think it's largely attributable to imperfect supervision. I've read PhDs where I think, ‘well how did a supervisor let that through? How dare they!’ It poses a real dilemma for me because it's a very big thing to fail a PhD. I've actually passed a few crappy ones and I feel angry about it really. (As a result, I sometimes, as an examiner, demand rewriting, even though that sometimes strikes people as too severe. An examiner who stipulates rewriting has a duty to be as clear as a good supervisor about why and how the rewriting is to be done.) I told myself that I would never put an examiner in the position that he/she felt compelled to fail the thesis, but shrank from doing so out of consideration for the student. The examiners are judging me as well as the student and I want to perform well through the student's work.

The third influence on Tim's supervision is through developing his own abilities as an academic. He suggests that these skills are the same skills you need to be a good supervisor.

### **Supervising through writing**

It is the experience of his own candidature, examining other theses and being an active academic that have led Tim to see students' writing as central to the research process. For Tim, a thesis is a cultural artefact that is developed according to certain craft skills that are to some degree independent of the disciplinary intellectual traditions in which the student is working. He describes it as,

# Managing the process

## *to be supportive and critical at the same time*

... not completely independent but to some extent independent, because you're learning how to structure a long and complex piece of work so that the introduction leads to something and there's a sequence of development and a conclusion. I think that those skills can't be taken for granted. I think that one of the main things that you learn as a postgraduate student is how to do that kind of writing and I think that the supervisor has a duty to teach it.

As writing a good thesis involves these general principles, Tim does not get his students to emulate what he regards to be a model style.

Everybody has got to eventually find their own style. I usually find my students' styles a little bit clumsier than my own but, in the end, I hope I would have bought it to a clearer exposition than they would have if they didn't have my assistance.

The process of supervision is something that emerges as the supervisor goes through successive drafts. Without the student constantly writing, Tim feels the supervision process would become too intangible. "What makes it tangible is that you both have a piece of paper in front of you which has got the student's words on it and you know that it is the object that you are working with."

Tim acknowledges that it is important for the supervisor to separate themselves from the writing.

I haven't had the experience that I was so closely involved in last minute editing and drafting that there was a question around the sole authorship and I'd hate to be in that position. So I think that if your admissions policy is sound and I think that if you have my idea of write a lot, draft a lot, rewrite a lot, criticise every draft and pay attention not just to ideas but to style of exposition, then at the end there's no way you're going to be involved in anything like co-authorship because all that hard work would've been done.

For Tim, the worst thing a student can do is to wait until they think that they have everything worked out, and not do any writing until then.

I think that you learn about the material you've got by trying to write it down and therefore I think a student should start writing very early in the candidature and not be afraid to write crap and the supervisor shouldn't be afraid to say, 'that's no good, but it's great you've started'.

The other side of supervising through writing is to be critical about the ideas.

There is a point where you have to pull back and if the student isn't completely adopting your conceptualisation, you've got to say 'ok, well it's their thesis'. But I've found it possible to be fairly directive about conceptualisation. If not directive, then strongly suggestive and say, 'look, I don't think you're making sense of the material this way, I think you should do it this way.'

The supervisor cannot just hand over a framework and expect it to be filled in by a student. Tim argues it is only possible if the supervisor and the student have read some of the same theoretical material so that it means something to both of them.

In judging the quality of the PhD drafts, Tim treats the student as if he or she were a colleague submitting an article to a journal. He finds working with his students just as demanding as working with a colleague and Tim's advice is to stay good humoured and to turn around the drafts quickly.

You've got to set high standards and I think students like that. Sometimes students are disappointed that a draft they think is pretty good, that I don't think it's as good as they think it is. Sometimes you can see disappointment on people's faces and they think 'Christ I've still got to do more work, and I wish this damn thing would finish', but I'm pretty firm about that and the reason I'm pretty firm about it is because I've also examined PhDs.



## Geoff Gurr

### Rural Management

Dr Geoff Gurr sees a PhD as research training only in the broadest possible sense, where it encompasses aspects like learning how to think and how to be self-critical. His goal is to equip students with the broad generic skills that enable them to function as autonomous researchers once they have graduated. To help manage this process, Geoff has developed the Supervisor/Student Alignment Model.

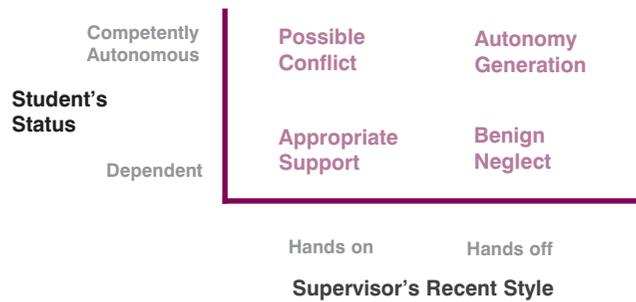
For Geoff Gurr, a key element in improving as a supervisor has been the feedback from his students. As a result, Geoff now focuses much more on the supervision relationship, whereas in the earlier episodes, his focus was on the logistics of the project and making sure it was successfully completed on time. Getting reliable feedback from students can be difficult because there is a strong power relationship, with the student being the party without the power.

In Geoff's experience, when students come to speak with their supervisor they talk about experimental design, data capture and things that impact on the project.

What I am trying to do, is give the students some kind of signal that says it is OK to talk about things other than the nitty-gritty of the research project. Without some way of being able to step back from that so we can talk about their needs, they tend to feel that this is taboo territory.

To help facilitate this process, Geoff makes use of a supervision model, a diagram of how the supervisor and student perceive their requirements. "This supervisor/student alignment model is basically an activity of mine to try get students to have a dialogue with me, about my relationship to them as a supervisor." Geoff describes the model as basically "a two dimensional supervisory landscape represented simply as a graph with two axes". One axis represents the student's feeling of their developing autonomy as a researcher. The other axis is the supervisory style, described as either 'hands on' or 'hands off'. The idea of the model is to bring together the student's and supervisor's views of the type of relationship desired at that point in the student's development. As Geoff describes it,

The way in which I have operationalised this model is that the student and supervisor independently think about where they are at and literally put an X on a copy of the graph. X is simply a way of conceptualising where they believe they are at that stage. In a subsequent discussion, we can compare notes and compare the position of our X's and nearly always there is some level of departure. They never coincide exactly.



The "Supervisor/Student Alignment Model"- showing potential outcomes for four combinations of student's state and supervisor's approach.

It is that degree of difference that generates the interesting dialogue which Geoff uses to check that the supervisory relationship develops appropriately and that both parties share an understanding of where they are at and where they have to go over the next six months or so.

At the end of one of these discussions we end up by agreeing on a course of action. The action may for example, be to adopt a less hands-on style of overall supervision. Alternatively, it might be, more hands-on in one domain, but less hands-on in another domain. An example might be an experiment they want to design on their own. So these are the kinds of resolutions the two parties might end up making after using the supervisory model.

## Monitoring the supervisory relationship

By monitoring the supervisor/student relationship, Geoff is trying to determine when he should encourage the student to strive out on their own. Geoff feels strongly that, at some stage during the supervision process, students need

opportunities to develop what he terms 'competent autonomy'. By this, he means that they get a feel for doing things on their own, they make a few mistakes, analyse what went wrong, why it went wrong and why it won't be repeated in the future. Over that period the supervisor needs to change their style of supervision to reflect the changes in the student's competencies. Geoff uses six month intervals with his students, and at each of these little check points along the way, he checks that the student's perception of the supervisory style they are receiving, is appropriate for their needs at that stage.

At some stages, students will be looking very much to the supervisor for lots of advice and hands-on supervision, for the basics like getting their projects up and running, and then perhaps towards the end when they are writing things up for research papers, they will be wanting a fair degree of hands-on supervision.

By discussing the supervision with students, Geoff finds there are intervals throughout the relationship where opportunities arise for the supervisor to lift their hands off and give their students a free rein, "to exercise a bit of autonomy and make a few mistakes, learn from those mistakes and to show some genuine initiative".

Geoff sees using the model as a way to check if there is an alignment between the supervisory style and student needs. This has opened up a whole other dimension to postgraduate research student supervision.

I now see the PhD experience as a journey of professional development towards competent autonomy rather than three years of becoming an expert in a certain project area. By focusing on competent autonomy as the goal, I am better able to help the student achieve this status by changing my supervisory style in response to their dynamic needs. The model gives me the feedback I need to adopt this dynamic supervisory approach.



## Trevor Hambley

### Chemistry

1997 was the year when the Sydney University Postgraduate Students Association (SUPRA), awarded Associate Professor Trevor Hambley from the School of Chemistry, Supervisor of the Year. One of the emphases in Trevor's supervision is providing students with a framework in which they consider their work in an international context. Through organising work experience in international labs, to assisting with funding for overseas conferences, Trevor's students become much more aware of the global reputation of their work.

Trevor Hambley finds that supervision has become more structured than when he started as a postgraduate student. His personal style tends to be fairly easygoing, so if a student wants to do something in a different way, he let's it go on as much as possible, as long as it does not interfere with their candidature. Part of the exercise in managing this flexibility involves regular meetings.

I have meetings with students regularly, on a monthly basis particularly early on. We actually sit down and write notes of what they're going to do over the coming period, and then when they come back a month or six weeks later we bring out those notes and say, 'where are you up to?' and things like that. The intention of the regular meetings is that the students develop the agenda. We talk it over together and I contribute to it, we write it down and I think that's the thing, when they start to learn, 'these things aren't going to be forgotten. I need to think about them and deal with them'.

Trevor's goal for his PhD students is that they become fairly independent. "That to me means you've got to let them make the great bulk of the running, and the only way of making that work is by letting them go and then watching and listening to what they're doing."

Providing a structure through meetings is one way of watching over the students with an eye to how they managing their time.

One of the important things that I talk about with people who have just started off is, how are we going to make sure that at the end of the three years we can be confident they'll have a thesis full of material. We can use the six months then as backup time. That has become fundamental now and that's something that's changed over my years of supervision experience.

## Managing problem situations

This watchful attitude extends to the lab as well.

Problems don't arise and tensions don't arise in the group if you're always on top of them and always aware of what they are. Just having morning or afternoon tea with them every day really makes a big difference because you get a feel for what they are thinking and where the problems are arising and so on.

At these informal meetings the tensions or problems which are around just come up automatically and are dealt with straight away. Trevor strives for harmony in the lab and in this environment he finds students let him know fairly quickly when they aren't happy. He admits though, that there have been times when he hears stories about his early students, of which he had no idea of at the time. Having close contact with his students provides Trevor with the best opportunity to listen to the students' concerns which helps to circumvent potential problems.

A person who's not pulling their weight or sharing the duties can really cause a lot of friction in the lab, and that can cause an enormous amount of damage. So I tell students at the outset that I expect them to contribute to housekeeping, contribute to safety and behave in a manner so that they respect everybody else's safety and work spaces and things like that.

*The life of the research group is important to him. He makes an effort to be visible as a supervisor, even when busy, and enjoys socialising with the group whenever possible. This creates the impression that he is concerned with the progress of students through their degree, not just looking upon them as a means for research output - PhD student.*

## Supervising in an international context

In the end it is Trevor's own experiences as an academic that guide his supervision.

I was unusual in that I didn't get to do a post-doc overseas. Through a series of coincidences and accidents, I think what I felt then was that being in Australia can be isolating and so you don't have confidence in the standing of your own work. When I eventually did go overseas, the thing that surprised me most was just how good our work was, and how internationally competitive it was. When I came back from overseas I felt enormously confident about going on and doing the kind of work I'd been doing, and in fact tackling things that we hadn't been game to tackle because I realised that we were at the cutting edge.

The realisation that his research was of an international standard gave Trevor the confidence to write for an international audience. To build this same sense of confidence in his students he encourages his students to seek out a full range of alternatives, which includes visits overseas.

When I had the opportunity to send students overseas I took it, and the students have all come back and said exactly the same thing, that they were amazed at just how much up with the best in the world we are. You can see the way it builds their confidence.

He has yet to meet any resistance to the idea from his students. "In fact, I think every PhD student in my group at the moment has been overseas and they all love it, so they're only too eager."



## Greg Hancock

### Civil Engineering

A feature of Professor Greg Hancock's supervision is breaking down formality, trying to make it a close collegial relationship. Reflecting back on his own experience he realised that students require structure to succeed. Knowing how much structure to provide comes from knowing the students, knowing which ones will rise to a challenge and which ones might be discouraged by a challenge, and helping them over that barrier. Greg talks about this in terms of leadership as opposed to management.

Greg Hancock classifies his role as a supervisor into three main areas - organisational ability, the project the student is working on and then what flows from that project. Of these three, his main focus is on how to tackle the problem addressed in the thesis. For a supervisor, this involves relating the topic area with the student's interests and their abilities. Greg sums up his goal through the concept of scholarship, encouraging students to synthesise the contents of their learning.

I think scholarship evolves. What you've really got to do is get them focused and get them moving, particularly in research because it's just so difficult to get moving.

As a hands-on supervisor, Greg is happy to roll up his sleeves to help solve a problem. He says it is important to be enthusiastic about the student's project. This requires a style of supervision that he calls 'creative leadership', that is leadership by example. His advice to any supervisor would be,

to be enthusiastic about the subject, show the student that you're just as keen on the subject as they are, and carry them through with enthusiasm.

Greg observes that supervision is not about the supervisor being any more talented than the students. "They're just a bit younger. So I've got to make sure their talents are used to their absolute maximum." He does this by helping them understand the boundaries of the field and making sure they are not wasting their time. He uses following metaphor to describe the process.

It is like putting them in a paddock and allowing them to run around. They've got to have constraints on what they're doing. They can't just run off at a tangent. You don't want to leave them completely free because anything might happen. You've got to keep an eye on them but at the same time you don't want to impose your thinking on them, because their own creativity, their own natural talents shouldn't be suppressed by the supervisor.

Even though his own PhD supervisor was very much the 'let him go and explore' kind, and by luck it worked, Greg feels that it could easily have gone awry. He has seen other PhD students given that sort of freedom, fall by the wayside and leave the Department because there was not enough

structure. With the pressure to cut down PhDs to three and a half years, Greg sees it as important to get the students moving as quickly as possible.

One of the worst things I've seen happen... there used to be this idea that you sent a student away for 12 months to study the background of the subject, and they would then do this great review and out of that they would come back and decide what they were going to do.

Greg suggests that in his field this is a recipe for absolute disaster.

Firstly, students get overwhelmed by the sheer volume of material and then they are not making use of their supervisor's experience to clarify what needs to be done. Research is the cutting edge of knowledge. Somebody's got to show them where the cutting edge is. Often the sheer volume of material makes them feel that 'everything's been done, I don't need to do any more, I'm overwhelmed by it all'.

Greg sees this as a loss of valuable time that could be spent on getting the project going.

My attitude is to come in on the problem hard, right from the word Go. From day one, actually get them doing something. Then, as problems arise, you point them to the papers they should read and send them to the library, say, 'OK you found something you don't understand. Now go and have a look at what's been written about that'. And often they go away and start digging through the literature, but I don't like to let them roam free to begin with because it wastes too much time.

## Student writing

Even if the student has their thesis problem under control, Greg argues that the supervisor has a role in getting them through and helping them write. His strategy is to get the student to look at the subject matter and to help them understand the subject matter through the stepping stones of smaller writing tasks.

We have a system here in this Department of producing research reports. Students

write up each stage of the project, and then those research reports get turned into journal papers or conference papers. In some of the really difficult cases... one PhD student I had was Korean and had extreme difficulties with English. He was very talented but had great difficulty. He wrote four of those research reports jointly with me and then for his PhD, they just became the chapters. He just had to write, like bookends, the introduction and the conclusion. That's the most extreme case... how to get a PhD student who really struggles with English within the time frame. So it's to get them writing reports on what they're doing from an early stage.

This provides the student with a lot of feedback as each report is distributed to people around the world who work with the Department.

They write the reports with all the appendices containing all the data. So all their data is there. They can give those reports to people all around the world saying, 'look I've done this, my great work'. Often, the front end of it can be just published in a journal or presented as a conference paper. So that's part of the stepping stone.

As well as reports, all research students are expected to write papers for conferences and Greg has taken most of them to international conferences with him to present papers.

There's one international conference that has recently complimented us on the fact that for the last 20 years at that conference, which is held every two years, I'd always have one or two PhD students at that conference."

Greg is aware that the only way students can meet the leading people and actually get funding to go to the conference is if they have written a paper.

You can only write a paper if you've written a report, so it's a sequential thing. So you help give them the structure to set them up, and in a sense you're taking up another layer of complexity, a more detailed analysis, going from the conversations you have with them to the reports.



## Philip Hirsch

### Geosciences

Since being awarded the 1998 SUPRA Supervisor of the Year, Associate Professor Phil Hirsch's views on supervision have been regularly sought after throughout the University. In his role as Associate Professor in the School of Geosciences, all of Phil's postgraduate students are pursuing their research through fieldwork. It is managing the issues arising from several contexts that help Phil to provide more detailed and tailored supervision.

Phil Hirsch's students investigate research problems that occur in varied cultural, political and environmental contexts. In this instance, fieldwork is a major component of the supervisory relationship. Because Phil's students work mostly in the Mekong Region – Thailand, China, Vietnam, Laos and Cambodia, fieldwork presents a unique set of challenges to a supervisor.

I've got a relatively large number of overseas students and that's become quite a major point. Having lived and continuing to work in the region where most of my students come from helps, of course. More than that, though, I have to understand where students are located professionally."

Understanding all the circumstances surrounding a student's candidature can be difficult. Phil likens the process to 'getting inside the minds of his students' – professionally, culturally and intellectually. He further argues that his role as a supervisor has to do with managing a series of tensions that result. These include negotiations around degrees of guidance, including students' interests beyond pure research and being attentive to the various motivations that drive the completion of the research degree.

"One is the tension between a collegiate, fairly equal relationship between teacher and students, and on the other hand, recognising that students are looking to you for guidance and direction. So the tension between being directive and allowing students free rein is one I think every supervisor is going to have to face."

*My student-supervisor relationship with Phil can be characterised as collegial, marked by personal respect and a shared understanding and commitment toward my goal of professional development – PhD student.*

### The importance of targeted seminars

Tailored seminars have an increasingly important role to play in the context of Phil's supervision practice. He collaborates with academic colleagues in his department to identify issues/areas of interest common to postgraduate students.

Rather than being a staff seminar to which postgraduates can choose not to attend, we've been having a targeted postgraduate seminar because with quite a strong methodological component. We've used it in the way to encourage students to present their own work in a reflective manner. I've encouraged students to present at the intersection of at least two different students' research topics. In that way, we're weaving together a kind of postgraduate community of scholars who not only understand their own work but also how it relates to others' in the department.

Phil argues that the seminar series has also prompted many of his students to see the department and supervisor as a resource, “rather than as a policeman or somebody who is forcing them in directions that they don't want to go”. This helps to create an environment where ideas travel between people. Phil facilitates this kind of interaction for both research and social purposes.

There is a much-needed social aspect to forging a collegiate group of postgraduates, particularly when they come from diverse cultural backgrounds. We hold picnics,

departmental functions and some residential or camping retreats. It's something that gives a very nice atmosphere around the department. I have no doubt that it helps postgraduates' intellectual interaction if they get on well and get to know each other as fuller people.

*Phil's commitment to his students' progress does not stop with academic concerns, but extends well beyond to a broader concern for the student's welfare – PhD student.*

Helping students understand their connection to others is an important part of the way supervisors can provide support and opportunities. For Phil Hirsch, this is where students can realise the significance of their research.

It's the combination and sharing of different real world contexts and certain common interests, together with the forging of conceptual approaches to the research problem, that helps students to give meaning to the research environment.

*He also provides helpful practical advice on the organisational and planning aspects of conducting postgraduate research, including the management of reading, fieldwork, writing tasks, as well as lecture and seminar preparation and delivery – PhD student.*

## Tony Underwood

Centre for Research on  
Ecological Impacts of  
Coastal Cities

Professor Tony Underwood has seen many changes in the discourses of research supervision since he started in the mid-1970s. As Director of the recently established Centre for Research on Ecological Impacts of Coastal Cities, Tony is responsible for guiding its research effort. In his supervision responsibilities, he argues that despite a close link between research and the production of the thesis, the research itself is a larger project that will transcend the thesis. The PhD on the other hand, is defined by a set of parameters that are about working towards the qualification.



*Help students determine the*

Tony Underwood is concerned about a prevalent view that separates the research from the creation of the thesis. It is a view that he sees some students try to take - to complete the research first and then write the thesis. He encourages his students to take a pragmatic approach by being aware that the first goal is to complete their thesis.

I'm just trying to get the student to realise in the beginning that they are working on a thesis to get a degree, and that research must, to some extent, be subservient while the PhD is going on. A student shouldn't really have to finish their research in order to get a PhD. It's instead, about realising that 'well, I'm actually trying to get my PhD' and there is an arbitrary stopping point.

In setting up this realisation early on in the candidature, Tony feels very strongly that his students must be aware of what is expected from them. To this end, he spends a lot of time explaining the structure and the role of the thesis so students are under no illusion of the task at hand. Part of this time is also spent working out the dynamics of the supervisory relationship. He argues that the relationship needs to be de-romanticised because it is inevitable that both parties will have off days.

The fact of the matter is students and supervisors are going to have their off days. Things can go wrong or equipment won't always work on the day it's needed. I want people to realise that there are going to be inevitable disappointments but the whole point is that the joy and pleasure of research is not dented by them.

## **Mutual responsibilities**

Tony tries to supervise in a way where students see that they have certain responsibilities. While happy to provide a supportive environment, Tony says “it is their life, it is their research and their thesis and, in the end, they can receive advice but can’t be told what to do”. In the same instance, Tony is not remiss about his role as a supervisor.

I have no quarrel with students demanding that their supervisors be more responsible but I think that students have to realise there are lots of resources, not just their supervisor’s time, but in the infrastructure and direct money costs going into the project which students are not meeting.

In terms of actually producing the thesis, Tony argues that supervisors must be schooled in the tools of the trade. This includes things such as knowing the relevant literature and being able to guide students’ conceptual understanding about how best to proceed.

It’s not good enough for supervisors to say ‘I’ve not been bothered to read it because most of it’s gunk’. Supervisors have got to know why and understand that students are not innately people who want to spend a lot of time at the library reading literature so there has to be some sort of struggle to persuade them.

## **Promoting a robust research culture**

It is these interactions which have led to the development of a regular seminar program within the Centre.

We have an open Centre meeting every alternate Monday. It involves honours, post-docs, staff and research people who give short overviews of their work. We meet regularly with all our students to make sure that they’re not labouring away and not solving problems in their projects for months before we discover what’s going on.

One thing Tony really values is informal interactions with students. Having never before been located in the same building as his students, Tony likes the way working in a Research Climate helps people make connections with each other.

Nobody ever wanted to say hello to you when something was really going well but now, it’s much easier (because we’re all in the same building) to enjoy the ups and downs as well as the problems. It’s also easier to set up meetings and get people into the swing of having them and not to feel threatened or intimidated by them. I think that helps people understand what their obligations and responsibilities are, both supervisors and students.

