

Supervisor Development

Workbook

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on behalf of the Research Graduate Studies Committee

Research & Innovation
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OBJECTIVES OF THE WORKBOOK

- **To develop and enhance supervisory skills**
- **To facilitate the ability to manage the supervisory process to ensure timely completions**
- **To ensure that supervisors are aware of RMIT policy, procedures and regulations relating to research degree supervision**

The program and the workbook will enable supervisors to:

- **Develop their knowledge and techniques to supervise in the most effective way**
- **Engage in critical reflection on their own supervisory practice**
- **Work out ways in which they can act to improve their practice**
- **Gain recognition for participating in supervisor development activities**

The assumption underlying this workbook is that there are significant disciplinary differences in supervisory practices particularly between research in the lab-based experimental sciences and the arts, humanities and social sciences. Disciplinary differences must be anticipated, respected and built on. However it also the assumption of this workbook that there are common topics in supervision across all disciplines. It is these common topics, which form the subject matter of this workbook.

Much of the material in this workbook is based on the QUT online supervisor development program 'Completions Challenge: Supervisor Solutions'.

<https://olt.qut.edu.au/udf/supervisorsolutions/>

Permission to use the material in this form has been given by QUT.

Material from the fIRST (for Improving Research Supervision Training) consortium site, which RMIT subscribes to, has also been used. <http://www.first.edu.au/>

Other material used is suitably acknowledged.

INTRODUCTION TO THE WORKBOOK

The actual practices of postgraduate pedagogy have been, traditionally, somewhat mysterious and intimate phenomena....These practices have been described as centering on a relationship between the experienced and the neophyte scholar in which the precocious few are called to emulate the flattering self-image that is generated by a scholar as master.... Traditionally conducted behind closed doors in spaces remote from either undergraduate teaching or the 'real world' of commerce and industry, the process of academic stimulations and scholastic seductions have remained relatively unexamined...

Erica McWilliam Mentor, manager and mentoree: new academic literacies for research education, In M.Kiley & G.Mullins *Quality in Postgraduate Research: Integrating Perspectives*, CELTS, University of Canberra

Until quite recently it was considered that academics became 'qualified' to supervise research degree students merely by virtue of having achieved their own research degree. Any 'training' was on the job training. This is now changing and increasingly it is being recognised that having achieved your own research degree and learning on the job is not enough to make you a good supervisor. The increasing use of the term 'research training' is indicative. It points to a 'deprivatisation' of supervision practices and a focus on a research program *curriculum* ie that for the student and the institution research is now more than just the relationship with their supervisor.

There are reasons for these changes:

- The emphasis on public accountability and quality from government and legislation that universities now face
- The recognition that supervision is a form of pedagogy which like all pedagogy can be developed
- The performance based research economy that makes timely completions a crucial 'fact of life' for the institution and for supervisors
- The changing demands on supervision, particularly the emphasis on developing students' transferable skill sets relating to employability and career development.
- The growing diversity of research degree programs eg professional doctorates, project degrees

Thus supervisors of research degree students are faced with new environments and new demands to which they must respond however reluctant they may be to do so.

In broad terms it has not been in the interests of academics or their postgraduate charges to show and tell what systems of encouragements or discouragements may have been at work in the daily mentoring of postgraduate research and writing...

Erica McWilliam (as above)

The consequence of all this is that supervision can no longer be left to continue simply as craft knowledge. Supervisors need the skills that will enable them to flourish in these environments and to meet the challenge of new demands. These

skills can only be acquired if supervisors engage in learning through development programs focused on improving supervisory practices.

For more on this see:

Pam Green & Robin Usher [Fast supervision: changing supervisory practice in changing times](#), *Studies in Continuing Education*, 25, 1, 2003

<http://mams.rmit.edu.au/rmvqqgu0flvy.pdf>

The question is therefore: *how are research students best supported through supervision?*

This workbook is specifically designed to meet this current need for supervisor development. It is structured in such a way so that supervisors in all disciplines and with a variety of experience can engage in their own self-development. It covers a range of topics to be found in supervisory practices. Most important, it is activity based and will therefore stimulate reflection upon current practice and encourage consideration of how that practice can be improved. The emphasis therefore is more on what supervisors need to *do* rather than on what they need to *know*.

The workbook can be used in independent study mode or as part of a classroom based supervisor development program or alternatively in a combination of these modes. It is designed to be used by new and experienced supervisors. New supervisors ie those who are supervising for the first time, may find that those activities that require drawing from personal experience can only be answered if the experience drawn from is that from when the supervisor was a research student.

For more on the Research and Innovation Section of RMIT see:

<http://www.rmit.edu.au/browse;ID=i1r7w5n0x3u;STATUS=A?QRY=Research%20and%20innovation&STYPE=ENTIRE>

For more on the work of the Research Training Group see:

<http://www.rmit.edu.au/browse;ID=v14skbf3k1ht>

For the classroom-based Supervisor Development Program see:

<http://www.rmit.edu.au/browse;ID=mb32i7ly7f76>

For the Research Literacies Program for research students:

<http://www.rmit.edu.au/browse;ID=c8fwjon6aoi1>

ALL YOU EVER WANTED TO KNOW ABOUT PROCEDURES & REGULATIONS

Objectives

- To acquire a clear understanding of RMIT HDR procedures & regulations
- To be apprised of recent changes in procedures and regulations
- To become familiar with the requirements for supervisor registration

Content

- HDR Policy, Procedures & Regulations
- At risk process
- Complaints procedure
- Supervisor registration

Resources

Activity 1

A checklist for beginning supervision
--

Have I:

- read the *Code of Practice for Research Degrees Supervision*?
- applied to be on the *Register of Research Supervisors*
- attended an induction session for new supervisors?
- negotiated specific responsibilities vis-vis my students with other supervisors?
- ensured my student(s) is/are familiar with all relevant policies relating to their candidature and in particular those relating to At Risk and Complaints?
- discussed the University's *Authorship Policy* with my student(s) and clarified its meaning?
- understood the University's IP policy and have discussed this with my student(s) if appropriate
- agreed a structured program with my student(s)?

- ❑ ensured my student(s) has/ have adequate physical space, equipment, technical and material resources, for their research?
- ❑ introduced my student(s) to other research students and to academic and general staff members of the School / Centre / research group?
- ❑ assessed English language and academic writing proficiency?
- ❑ ascertained needs in relation to computing, information literacy and research skills?
- ❑ informed my student of the specialist language, study and research assistance available?
- ❑ negotiated expectations of the supervisory process with my student(s)?
- ❑ explained the progress review process to my student(s)?
- ❑ assisted my student(s) to choose a research topic, if this has not already been defined?
- ❑ discussed the requirements and optimum timeline for program approval
- ❑ ensured that my student(s) is/ are aware of ethics approval procedures, intellectual property arrangements and safety procedures that are relevant for their research?
- ❑ familiarised myself with my record-keeping responsibilities

Activity 2

A checklist for discussions with supervisors

As a student you will need to discuss all or most the following with your supervisor(s)

- Administration of research degrees
 - processes and procedures for enrolment and leave of absence
 - upgrade (if relevant)
 - variations to candidature
 - key personnel
- Academic regulations for Masters/PhD
- Roles of senior and second supervisors, *Code of Practice for Research Degree Supervision*
- Schedule of meetings
- Progress review and At Risk processes
- Complaints procedures
- Resources provided by School in relation to resources required for proposed project
- Intellectual property, publishing and authorship
- Requirements for data storage
- Referencing packages
- Structured program
- Library access
- Time commitments for PhD/Masters by Research
- Program approval process
- Thesis requirements
- Ethics guidelines and procedures
- Scholarships

Policy, procedures and regulations

These are set out in the *Higher Degrees by Research* booklet. See also:
<http://mams.rmit.edu.au/8pizhtr9gw9o.pdf>

At risk policy and procedures

These are set out on p20-24 of the *Higher Degrees by Research* handbook. See also:
<http://mams.rmit.edu.au/wdzg66so2ja4.pdf>

‘At risk’ refers to a classification that can be placed upon the candidature of HDR students when they are demonstrating unsatisfactory progress and it is considered that a high probability exists that they will not achieve their program milestones and/or not complete their program successfully and within the prescribed timeframe.

Registration of supervisors

All supervisors of research degree students must be accredited to supervise by being on the RMIT **Register of Postgraduate Research Supervisors**. Details can be found at:
<http://mams.rmit.edu.au/e7c4kpv39ozg.pdf>

Code of Practice

All supervisors and students must read, understand and follow the Code of Practice. It can be found at:
<http://mams.rmit.edu.au/j4me8p0tcxsb.pdf>

Authorship

Policy on authorship is set out at:
<http://mams.rmit.edu.au/2jcllvnei8oz.pdf>

Scholarships

Information on Australian Postgraduate Awards (APAs) can be found at:
<http://www.rmit.edu.au/browse?SIMID=5ugx79feoag61>

Student complaints

Policy and procedures on student complaints can be found at:
<http://mams.rmit.edu.au/grrpxcp3or9v.pdf>

Resources for research students

For RMIT Minimum Resources Policy see:
<http://mams.rmit.edu.au/v5sn1nbc2yua1.pdf>

Intellectual property

For RMIT policy on IP see:
<http://mams.rmit.edu.au/ciak6b8x7wyw1.pdf>

Supervision policy

Joint NHMRC / AV-CC Statement and Guidelines on Research Practice:
http://www.avcc.edu.au/news/public_statements/publications/glrespra.htm

THE RESEARCH TRAINING ENVIRONMENT AT RMIT

(also for Portfolio Deans, Research and School Research Degree Co-ordinators)

Objectives

- To acquire a clear understanding of how research training is managed at national level and at RMIT University
- To define your particular role within the research training environment

Content

- National policy re research and research training
- The management of research training at RMIT
- Research Master online student management system

Resources

The national context

In the contemporary research environment all researchers and supervisors need to have a broad understanding of the context, at the institutional, national and international level, in which research takes place.

In the last fifteen years, Australian universities have undergone major changes in structure and funding, from the Unified National System of Dawkins, implemented in 1989, through Kemp's Green and White papers in 1999 and the implementation of the Research Training Scheme in 2001-2002. The current Minister for Education Science and Training initiated yet another review of higher education policy, with the *Higher Education at the Crossroads* discussion paper in April 2002.

The past fifteen years has seen:

- A shift from an elite to a mass education system
- Abolition of free university
- Greater emphasis on the economic value of higher education and research, with concomitant emphasis on accountability to funding providers (primarily the Government)
- A decrease in the proportion of funding provided by the Government with a huge increase in student numbers.

All this upheaval has provoked lively debate on the role of universities in civil society and the purpose of higher education and research.

Macintyre and Marginson (2000) conclude that universities are now expected to:

- Provide vocational training;
- Produce research and knowledge closely linked with practical and commercial uses; and
- Act as businesses with the potential to generate income from overseas sources.

Yet the current Government's position, as stated in both Kemp's [White Paper](#) and in Nelson's [Higher Education at the Crossroads Discussion Paper](#) is that the main purposes of Australian higher education are to:

- Inspire and enable individuals to develop their capabilities to the highest potential;
- Enable individuals to learn throughout their lives (for personal growth and fulfilment, for effective participation in the workforce and for constructive contributions to society);
- Advance knowledge and understanding;
- Aid the application of knowledge and understanding to the benefit of the economy and society;
- Enable individuals to adapt and learn, consistent with the needs of an adaptable knowledge-based economy at local, regional and national levels; and
- Contribute to a democratic, civilised society and promote the tolerance and debate that underpins it.

In the discussion paper released in June 2002, [Striving for Quality: learning, teaching and scholarship](#), the Minister cited Robert Menzies' vision of a 'true' university, as given at a lecture at the Australian National University in 1939. A university should be:

- A place of culture and learning - of 'civilised and civilising things';
- A training ground for professions;
- 'Mutuality' that should exist between theory and practice;
- A place of research, of 'objectivity and unclouded minds';
- A trainer of character, its graduates enriching the entire community;
- Custodianship of intellectual freedom; and
- A training ground for leaders.

Langtry (2000) states that a university should provide a liberal education, not only the practical knowledge and skills, understanding of principles and development of analytical and critical facility required of a profession. He claims

A liberal education involves inquiry into the intellectual credentials of the principles, and the moral justification of the institutions and practices into which the student is being initiated. [...] A liberal education seeks to cultivate an interest in significant questions independently of any payoff to oneself in terms of professional advancement. It involves caution or scepticism about claims to authority; respect for truth, objectivity and rationality; skill in argument and an openness to follow argument where it leads - and these not only in some limited field but broadly, in all areas of one's life. It involves awareness of the intellectual, cultural and social context within which one thinks and acts as a professional. It involves awareness of serious alternatives to one's own personal and professional values, and reflection on one's reasons for working and living as one does.

The implication in Langtry's paper is that the Commonwealth government's policies do not support the values inherent in a liberal education. There has been much criticism of the Government's approach, described by many as 'managerial' (see for example, Coady 2000; Smith 2000; Myton 2002). Some academics refer nostalgically to a Golden Age (but see Roe 2001; Rodan 2001), others claim a loss of academic freedom (but see Tierney 2001), and most complain bitterly about lack of funding (eg Group of Eight 2000).

For further discussion of these issues see:

Robin Usher A Diversity of Doctorates: Fitness for the Knowledge Economy, Higher Education Research and Development Journal, 21, 2, 2002

and at:

<http://mams.rmit.edu.au/2d09ov1r9xwy.pdf>

Activity 3

Does the shift to a more 'managerial' approach erode the values of the university?

Is there a place for liberal education in a mass education system?

If it is the case that the role of universities envisaged by the current Government do broadly match the idealised values of a traditional university education, why then is there such opposition to current higher education policy?

What do you think the role of a university is in civil society should be?

What do you think the role of RMIT in particular should be?

The performance based research economy

Characteristics and impacts:

- Academic disciplines have been weakened
- Universities more interested in revenue and prestige maximisation
- Research in universities is organised through a performance economy
 - RTS (Research Training Scheme)
 - IGS (Institutional Grants Scheme)
- Research is managed
 - Clear objectives
 - Commercialisation
 - Knowledge management
 - People management

The Research Training Scheme (RTS)

The objectives of the RTS are to:

- Enhance the quality of research training provision in Australia
- Improve the responsiveness of institutions to the needs of their students
- Ensure the relevance of research degree programs to labour market requirements
- Improve the efficiency and effectiveness of research training

How the RTS works:

- RTS provides commonwealth funded HDR students with an entitlement to a HECS exemption for the duration of an accredited HDR course up to a maximum of 4 years FTE for a doctoral student and 2 years FTE for a masters student.
- Fully implemented in 2002. 2001 was a transitional year although RTS applied to those commencing that year.
- Institutions will receive RTS places in relation to how well they perform against three measures:

Measure	Weighting
Completions	50%
Research income	40%
Publications	10%

The formula is applied twice a year

Institutional Grants Scheme (IGS)

Replaces the research quantum
IGS formula

Measure	Weighting
Research income	60%
HDR load	30%
Publications	10%

The push to completions

For RMIT:

- Completions are a critical measure
- We want as many completions and as few unproductive separations as possible
- We want our students to complete on time.
- We want our students to have a quality research experience

The following table shows defined completion times for RTS funded students

Type of program	RTS	preRTS
full-time Masters by research	2 years	3 years
part-time Masters by research	4 years	6 years
full-time doctoral	4 years	5 years
part-time doctoral	8 years	10 years

- A completion occurs when a student submits their thesis or project for examination.
- An unproductive separation is when a student with an RTS place withdraws or transfers to another university

The table below shows the total HDR load and total completions in 2002 at RMIT.

Portfolio	Faculty	Load (EFTSU)	Completions (actual)		
			PhD	Masters	Total
SET	Applied Science	196.25	33	7	40
	Engineering	259.68	23	27	50
	Life Sciences	98.24	9	4	13
<i>Total SET</i>		<i>554.17</i>	<i>65</i>	<i>38</i>	<i>103</i>
DSC	Art, Design and Communication	159.37	7	43	50
	Constructed Environment	123.20	10	14	24
	Education, Language and Community Services	179.95	12	17	29
<i>Total DSC</i>		<i>462.52</i>	<i>29</i>	<i>74</i>	<i>103</i>
Bus	Business	134.31	14	6	20
TOTAL		1151.00	108	118	226

The table below total completions numbers and %ages for each type of degree program and by pre RTS and RTS students.

RMIT Total Completions 1 April 2002 – 31 August 2003

	PRE RTS		RTS		Completing over time (RTS & preRTS)		Grand total of completing Students	
	Actuals	%	Actuals	%	Actuals	%	Actuals	%
PhD	144	51.6	7	15.2	13	4	151	46.5
Prof Doc	7	2.5	4	8.7	0	0	11	3.4
Masters	128	45.9	35	76.1	36	11.1	163	50.1
Total	279		46		49	15.1	325	

The table shows that the majority of completions are still pre RTS students. The RTS completions have however risen from 16% to 22% of the total over the last year. 15% of all students are currently over time in completing.

Activity 4

What for you as a supervisor do you think / are the most common issues/ problems you face / are likely to face in getting your student(s) to complete on time?

What do you think you need most to achieve timely completions?

Student	Most common issue or problem	What do you need most to achieve timely completion?	Success estimate

For a useful study consult:
Factors Associated with Completion of Research Higher Degrees, DETYA, Higher Education Series, Report No.37, 2001. <http://www.dest.gov.au>

Completions and a quality research experience

Results from the 2002 PREQ on respondents views of the overall quality of their research degree experience:

Quality of experience

All respondents	strongly disagree	disagree	neither agree nor disagree	agree	strongly agree	missing
Overall I was satisfied with the quality of my higher degree research activities	5%	12%	14%	36%	26%	8%

Ongoing Postgraduate Experience Survey - HDR student satisfaction, all student load as at August 2002			Sample size: 646, 40% of total cohort			
my research has sharpened my analytic skills	1%	3%	11%	46%	36%	0%
my research further developed my problem solving skills	0%	4%	12%	43%	38%	2%
supervisor provides good guidance on topic selection and refinement	4%	11%	14%	42%	26%	3%
supervision is available when needed	2%	8%	7%	39%	42%	0%
Department provides opportunities for involvement in broader research culture	8%	15%	20%	38%	16%	2%
I feel integrated into the Departments community	10%	19%	21%	30%	15%	3%
I am able to organise good access to necessary equipment	4%	12%	18%	41%	14%	10%
There is appropriate financial support for research activities	17%	18%	26%	24%	8%	7%

The tables above show that 62% were satisfied overall with their research degree experience whilst 17% were not satisfied and 14% were unsure.

Factors that caused most dissatisfaction were ‘department provides opportunity for involvement in broader research culture’, 13% and I feel integrated into the department’s research community’, 29%. Lack of financial support, 35%, was also a major cause of dis-satisfaction.

Activity 5

Consider the data in these tables and think about how you as a supervisor can do anything to alleviate the causes of dis-satisfaction. Make a list of some of things you might do.

Activity 6

Do you think that the push to completions might lead to a deterioration in the quality of the research student experience? Make a list of the effects of the push to completions and how these might impact on the student experience. Discussing with your student(s) might give you a fuller perspective.

Effects of push to completions	Impact on student experience

Activity 7

Read the case studies below and think about the following:
 What issues seem to be most commonly faced by supervisors?
 Are there significant disciplinary variations?
 On the basis of the information given which students are likely to complete on time?

What issues seem to be most commonly faced by supervisors?	
Are there significant disciplinary variations?	
Which students are likely to complete on time?	

Case studies from students in the Health Sciences

1. I had two supervisors, my principal supervisor had a PhD. The other didn't. My supervisors didn't know each other very well and it took a long time to find a spot in all our diaries for meetings. Then when I got there it took half the meeting for me to get them up to date again. After a while, I hardly saw the principal supervisor and lost a lot of time with the other one. She seemed very uncomfortable with me and took ages to give me my stuff back. Then the only comments on my drafts were spelling and punctuation errors. It took me a long time before I was able to change supervisors. I found there was nobody in the department who had the ability to define my area and to force me to set a crisp research question until my last supervisor came into the department. She has a lot of experience in writing papers and has a PhD close to the area I work in. In the last year with her I did more than in the previous 3 with my other supervisors.

2. My supervisor was really good. He was caring and very supportive. He was the only lecturer who was willing to take on my slightly strange and outlandish topic. It took him a fair while to get into it and I had to give him lots of reading, so he could inform himself a bit. He had a lot of other students and he did that for all of them. He was fairly slow giving back comments on drafts, because he had such a big load of postgraduates. When I got into trouble with my methodology, it took him a while to find somebody who could advise me. He was very sad when I gave up.

3. My department doesn't have a student voice. Many research students are professionals in their own right and have families. Nevertheless, the department still expects us all to be there all day or to be able to attend during working hours without much prior warning. I found it really hard to find out what research really is. My professional background doesn't have a research component and I lost a lot of time understanding what to do. I only understood after my first chapter was finally finished, but this was well into the second year.

4. I have always been pretty good at academic stuff and I had a research job before I got to university. It was frustrating, however, not to have any theses in my field to model myself on. It is such a tall order to be the first in a new area. Most of the staff hadn't done any research and the few who had, had done their research in other fields or so long ago, that they didn't know either. Nevertheless, I was pushed to set a high standard. My supervisors are probably more worried about the result than I. They took months to find suitable examiners. Even though I was supported by my supervisors, some of the older staff didn't really know what to do with me. I have heard that in some schools students are funded to go to conferences to give papers. Staff in my school always claimed that they get no money to go themselves and expect postgrads to pay for interlibrary loans of periodicals and monographs from overseas.

Case studies from students in Humanities/ Social Sciences

1. I was never able to find my supervisor. When he wasn't on leave, he was busy doing his research at home. During the semester I had to 'book' a time weeks in advance. Often I had forgotten what I was so enthusiastic or worried about by the time I finally could see him. I was shocked when he told me after 3 years that I wasn't progressing well and that he would recommend that I give up my Masters. I thought that I had done quite well.

2. I was my supervisor's first candidate and we basically did the thing together. We were peers more than anything else. The good thing was that we could be honest with each other. When I wasn't getting enough input she'd look around for somebody I could speak to. Towards the end of my candidature I had to look around myself for some people who could be my examiners. I found five. When two from my list declined and one was sick my thesis went to somebody who didn't have a clue about my theoretical approach and suggested I rewrite the whole thing! Thank God, the Professor of my school found a third examiner in Sweden who not only passed it but recommended that I publish it!

3. My supervisor took me on even though he wasn't interested in my topic. At the time I thought this wouldn't matter, but I soon found out that he would not read the things he needed to in order to assess my material. He nevertheless commented on what I was doing, mostly negatively. I had to switch supervisors three times during my candidature: once because my supervisor had to go on leave overseas, once because my supervisor left because she took up a better job in a different university, and once because I couldn't get on with the supervisor I was given after the first one left. The school had no policy on selection of supervisors and I was simply handed around until I made a fuss and insisted I work with the best person around. After reading and searching for 3 years, I was pushed by my new supervisor to write a paper for a conference at my own university. The discussion and comments on that paper were so interesting that I suddenly had my research question. From then on I made quite speedy progress. Why didn't this happen a bit earlier?

4. Postgraduate students in this department are just as low as undergraduates. The staff don't want to know about them. We aren't allowed to use their tea room, we have no representative on the school committee and when we have postgraduate research seminars, they whinge that they have to attend. Some of them even bring their marking along to impress us with how busy they are! I find it is unfair that students who are supervised by the 'big shots' in the departments are getting more support and encouragement (ie. Travel funds, co-publication offers, conference support, tutoring opportunities) than those who are part-time and who are not supervised by one of the two Professors.

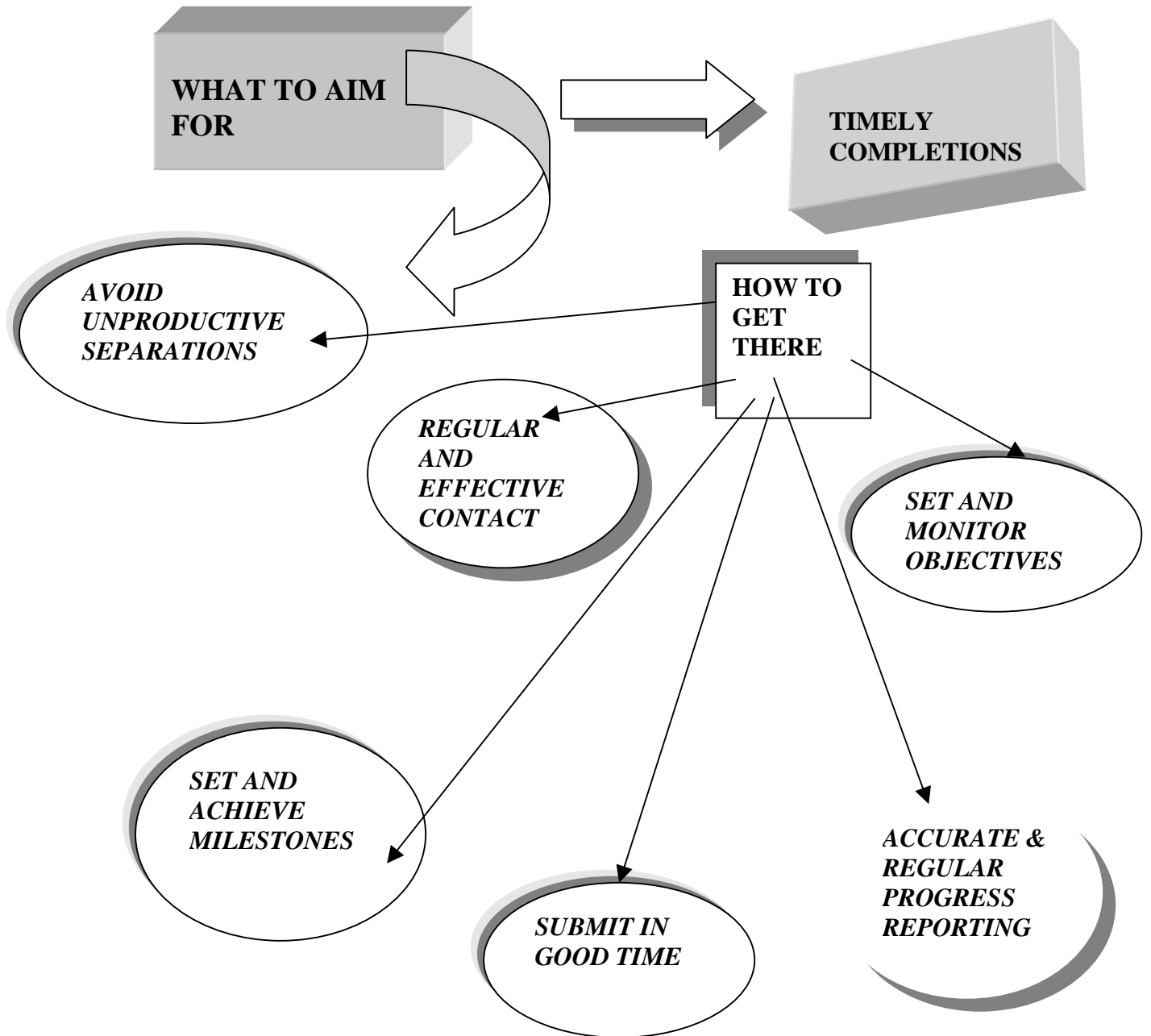
The most common issue raised is that of lack of support for the supervisors in the face of increasing pressure to supervise, to be successful in doing so and in coping with ever more diverse and assertive students. The role of the p/g-coordinator is often described as lacking in proper 'power' to enlist support for supervisors from the head of school in terms of work-load reduction, help with difficult situations, general induction into this type of teaching etc.

Some suggestions for possible solutions to getting students to complete on time:

- more support from the institution,
- more funding to assist their candidates,
- more training in specific areas such as writing, statistics.
- clear setting out of roles and responsibilities for both candidates and supervisors right at the beginning of the candidature,
- school-based milestones for all candidates,
- two supervisors for each project,
- regular writing tasks set for the candidate,
- detailed notes after each supervisory session,
- formal supervisor training,

- regular evaluation of the process,
- close matching of project with supervisor's research area,
- better selection of candidates, especially international students,
- preliminary enrolment,
- clearer grievance procedures.

(Erika Martens, Academic Development Unit, LaTrobe University
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Candidature management stages at RMIT

1. Pre-enrolment

- It is very likely that you as potential supervisor will have some contact with the applicant at this stage

2. Enrolment

3. Induction

- All commencing research degree must be offered, and must endeavour to attend an induction program

4. Structured program

- A structured program consists of induction sessions, participation in a Research methods course, a needs analysis and participation in a program of skill development where appropriate. It is negotiated and agreed upon by student and supervisor early in the candidature and reviewed on an annual basis.

5. Program approval -

1st progress review

Ethics approval if needed

- It is your job as a supervisor to prepare your student(s) for the program approval process. You need to acquaint yourself with the procedures for this. Consult your School's postgraduate co-ordinator

6. Progress reports

- These must be done on a 6 monthly basis. It is essential that reports are done on time, are comprehensive and accurate

7. Submission and examination

- A vital part of submission is putting together a panel of examiners. You need to do this in a timely manner. You should consult with your student but you should not reveal the names of the examiners chosen. The panel of examiners you put together will be approved by the RGS.
- When your student has submitted their thesis or project you as well as your Head of School will need to sign off that it is a work of examinable quality. You will also be asked to indicate whether in your opinion the student has achieved certain capabilities.

8. Examiners' reports

- Examiners' reports are considered by the Examinations Sub-Committee of RGS. For details of the work of the RGS see:

<http://www.rmit.edu.au/browse?SIMID=cq9xe84mg7gk1>

9. Classification by RGS

- Classification is done by the RGS on the recommendations of Examinations Sub-Committee. Classifications are endorsed by Academic Board.

10. Feedback to student and supervisor

- Feedback will be provided to you as the supervisor. You will need to discuss this with the students and decide jointly what further work if any needs to be done

11. Corrections

- Feedback will include the necessary corrections and amendments that need to be done on the basis of the examiners' reports.

10.Submission of final archival copy

- Once all corrections have been made a final archival copy can be submitted to the HDU who will also advise on format. See:

<http://www.rmit.edu.au/browse;ID=f2b8hek0hx32;STATUS=A?QRY=Higher%20Degrees%20Unit&STYPE=ENTIRE>

11.Graduation

RMIT Research Supervision Policy:

Rationale

This document refers to policy matters surrounding research supervision within RMIT. Research Supervision is a vital part of the quality of the research student experience and is increasingly being highlighted across the higher education sector as a focus for improvement. Every university has a duty to recognize the significance of supervision in its overall profile and to strive for excellence in this area. At the same time, Commonwealth Government accountability and reporting requirements are creating a need for robust data generation and collection in an environment where policies and mechanisms for supervision registration and development are becoming the norm across the sector.

Background

In 1999 a scheme for supervisor registration and development at RMIT was developed. *Quality in the Supervision of Postgraduate Students: A Scheme for Registration and Development at RMIT* (Martin, Usher & Lay, 1999) outlined a combined scheme of supervisor registration and development that was piloted in 2000. The initiative was part of a larger policy and process revision for higher degrees by research at RMIT. A transition phase from 2000 to date has occurred. It is now deemed time to move into a new phase and to formalise the scheme further.

Key Issues

- Demonstrated accountability at University and Faculty level for the quality of research supervision;
- Due recognition of research supervision (within workloads, promotion guidelines);
- Clarification of the nature of the research supervisor role (including that of the second supervisor);
- Appropriate models of supervision across a range of research degrees;

- The profile of research supervision within RMIT;
- Research supervision training and development;
- Registration and accreditation;
- Quality assurance and improvement such as QART and ISO.

The policy focuses on four main elements

- Recognition of supervision within workplans
- Differentiation between senior and second supervisors
- Classification of research supervision as teaching or research
- Registration and accreditation

- *Recognition of supervision within workplans*

In the interests of proper recognition of research supervision and holistic workload planning supervision needs to be provided for within workplans. Each faculty must formulate and maintain a statement of practice and procedures outlining how research supervision is to be allocated within workplans.

- i) Inclusion of Supervision within workplans needs to take account of current Higher Degree by Research policies and procedures.
- ii) A policy for calculating time allocation for supervision.

It should be noted that the Policy and Procedures for Higher Degree by Research (2001) states that:

- 9.10 The maximum load for a Senior Supervisor will normally be in the band of six to seven candidates, with the supervisory load reflected in staff workplans. If the Senior Supervisor is personally enrolled as a higher degree by research candidate, the number of candidates supervised will normally be half of that specified above.

In exceptional circumstances, the faculty may approve a higher load for a Senior Supervisor, but in no circumstances may the load exceed fourteen candidates. Such exceptional circumstances should be reflected by a reduction in the Senior Supervisor's other duties (such as teaching and administration) corresponding to the increase in supervisory load. A Senior Supervisor with a supervisory load of fourteen candidates should be regarded as a full-time supervisor whose other University duties are minimal. If the Senior Supervisor is personally enrolled as a higher degree by research candidate, the number of candidates supervised may not in any circumstances exceed seven candidates.

Two possible examples of provision for research supervision follow:

Example A:

Senior supervisor:	
Full time research students:	1 student contact hours per week
Part time research students:	0.5 student contact hours per week
Second supervisor:	
Full time research students:	0.5 student contact hours per week
Part time research students:	0.25 student contact hours per week

Based on:

Full time students:	1 hour meeting per week
Part time students:	1 hour meeting every 2-3 weeks

Both supervisors are actively involved.

Example B:

Cluster leader: 2 hours per week

Based on a cluster of 3-5 students.

Allocations, in this example, are based on the following broad criteria:

- Meetings occur weekly for an hour or fortnightly for two hours.
- The allocation includes reading of theses or review of project work.
- Candidates are part time students.
- Candidates are at a similar stage in terms of candidature processes and working at similar rates.
- The research constitutes work based projects.
- Most of the staff support is provided in cluster meetings rather than one-on-one.

It is recognised that cross-disciplinary, workplace and cross-organisational research mean increasing diversity of candidate support practices. Such diversity includes group supervision or facilitation, panel supervision with equal participation of a number of staff, increased ad hoc use of consultants, and use of workplace mentors. Under these circumstances, the total allocation of time for research supervision may be distributed across the range of staff actively engaged in supporting the candidate's research as dictated by their needs. Where this occurs, the roles and responsibilities of each staff member should be negotiated and noted in writing for the candidate. The senior supervisor will still be expected to take responsibility for the candidate's overall progress. It is recognized also that some faculties may wish to adopt a formula for calculating time allocation on the basis of stages of progression.

- *Differentiation between senior and second supervisors*
Given that RMIT mandates that every research candidate requires two supervisors, faculty statements should outline how research supervision is to be recognised within workplans for both senior and second supervisors. Faculties should include a statement of how the roles and responsibilities of both senior and second supervisors, in keeping with the RMIT Higher Degree Policy and Procedures regulations, are incorporated into workload planning and supervisory practices.
- *Classification of research supervision as teaching or research*
Faculties need to decide how to classify research supervision, that is, whether it should be seen to constitute teaching or research.

If research supervision is seen as teaching the focus is on the learning of another in a facilitative but also explicit way. Supervision may relate to the substantive area(s) of the supervisor but may pertain to methodological expertise or knowledge in a related area. The supervisor's role is to manage the student's progress through the degree and to provide input/extension along the way. Supervision is viewed as a crucial aspect of teaching and learning processes that relate to research but do not count as the supervisor's research. Within this position, supervision as teaching means that the supervisor is not overloaded with other teaching (in that supervision is part of the overall allocation of duties) so that there is opportunity for time to be allocated separately to research.

On the other hand, research supervision can be viewed as research. It involves students working on research occurring within the Faculty. An example of this might be laboratory based work. The student's work is seen as integrally related to the research of the supervisor. Their substantive areas are connected, and this forms the basis of the supervisory relationship.

The implication of this is that a separate section in work plans should be devoted to research supervision.

- *Registration, accreditation and development*
Registration of supervisors was initiated in early 2000. The policy stipulates that all research supervisors must be accredited. A transitional period was put in place to minimize disruption of student supervision and to overcome in a planned way problems of supervisory capacity. This transitional period is now ended and all aspects of the policy established then, and extensions of the policy as formulated in this document, need to be put in place through appropriate practices and procedures at faculty level.
 - Accreditation is achieved through entry on the supervisor register.
 - Registers are to be updated on an annual basis. Maintenance of registration is not an automatic process. Academic staff who do not meet the criteria for registration will not maintain accreditation.
 - Registration data should be kept in a form which can be uploaded electronically to Research and Innovation Section.
 - Registrations lists must be reviewed as part of the QART processes within each faculty. Revised registrations lists must form part of the appendices to faculty QART reports submitted on an annual basis to Research and Graduate Studies Committee and Academic Board.
 - An additional part of the QART appendices will be records of participation of supervisors in training and development activities.
 - A condition of maintaining accreditation is that experienced supervisors will normally participate in some appropriate developmental activities annually. New and less experienced supervisors are expected to attend university and faculty level training activities.
- Faculties are asked to include in their statements of practice how best to recognize supervisor development as an essential part of staff Professional Development.

Some useful reading on the changing environment for supervision and research education

Becher T, Henkel M & Kogan M (1994). Graduate Education in Britain. Jessica Kingsley Press, London.

Burgess RG (1997). Beyond the First Degree. Society for Research into Higher Education and Open University Press, Buckingham.

Cryer P (1998). Transferable skills, marketability and lifelong learning: the particular case of postgraduate research students, *Studies in Higher Education*, 23 (2) 207-16.

Postgraduate students should be developing transferable skills and they should be learning to identify those skills in themselves in order to market themselves effectively. An institution tried to put in place a program to assist students, but it did not work very well as originally conceived. This is an account of what happened. Such a program would be unnecessary if supervisors were conscious of working with students to identify the skills as they develop in the course of their research degree study. The appendix contains a very useful summary of the many skills students should develop.

Haksever A Mehmet and Manisali Ekrem (2000) Assessing supervision requirement of PhD students: the case of construction management and engineering in the UK, *European Journal of Engineering Education*, Mar, Vol. 25, No. 1, 19-32.

Harman Grant (2002) Producing PhD Graduates in Australia for the Knowledge Economy, *Higher Education Research and Development*, Vol. 21, No. 2.

Lunt Ingrid, (2002) Professional Doctorates in Education.
<http://www.escalate.ac.uk/exchange/CommissionedArticles/EdDartIL.rtf>

Kiley Margaret and Liljegren David (1999) Discipline-related Models for a Structured Program at the Commencement of a PhD, *Teaching in Higher Education*, Vol.4, No.1.

Pearson M (1999). The changing environment for doctoral education in Australia: implications for quality management, improvement and innovation, *Higher Education Research and Development*, 18 (3) 269-87.

Smeby Jens-Christian (2000) Disciplinary differences in Norwegian graduate education, *Studies in Higher Education*, Mar, Vol. 25, Issue 1, p54, 15p.

Stacey E (1997). A virtual campus: the experience of postgraduate students studying through electronic communication and resource access, *UltiBASE In-Site* 24 June.

This paper describes Deakin University's Education Faculty's experiences in developing a virtual campus for postgraduate students.

ACCESSING RESOURCES

Objectives

- To be informed about support resources for students under the Minimum Resources Policy
- To become familiar with the resources that the Library can provide

Content

- Resources for students
- Library
- ATN LEAP

Resources

ATN LEAP (Learning Employment Aptitudes Program)

ATN LEAP is a specially designed program for postgraduate research students. It provides an opportunity to improve and enhance employability skills. It is online and self-paced.

There are currently six modules available:

- Project Management
- Entrepreneurship
- Leadership and Communication
- Research Commercialisation
- Public Policy
- Global Sustainability

If you would like to find out more, visit the ATN LEAP homepage

<https://olt.qut.edu.au/udf/ATN-LEAP>

As an ATN research student you can access the modules and study them independently. If you are interested in enrolling in a moderated study mode and want to know when the modules are available, contact Helen Lennox

Helen.lennox@rmit.edu.au

Library

RMIT University Library resources for postgraduate supervisors

<http://www.rmit.edu.au/library>

The Library has a large number of resources and services that will be relevant for postgraduate supervisors and their students. Liaison librarians are available for consultation and information skills classes are held in the Library regularly for postgraduates.

Using online databases are an important part of research. Go to the Databases and e-journals page to search the Library's online databases.

<http://www.lib.rmit.edu.au/resources/display.php>

A sample of databases:

Web of Science: A group of citation indexes covering Sciences, Social Sciences and Arts and Humanities that allow you to track not just articles on a topic or by author, but also who has CITED a particular work and which institutions they come from.

Science Direct: A large electronic collection of science, technology and medical full-text and bibliographic information from Elsevier Science. Includes over 3 million articles, many peer reviewed.

ProQuest Digital Dissertations Complete: Index and over 1 million full-text (from 1997) doctoral dissertations and masters theses from over 1,000 graduate schools and universities.

The Info-Trek tutorial has useful information on how to access and search for information. <http://www.rmit.edu.au/library/info-trek>

An invaluable new service is **LIDDAS** a new electronic Document Delivery Service available in 2004. www.rmit.edu.au/library/dds

Use LIDDAS to request materials held at other libraries, cross campus copies, and postal loans for remote and external students.

How does LIDDAS improve Document Delivery?

1. You can submit requests online
2. Delivery of articles is to your desktop
3. You can track your requests

Before you use LIDDAS

You must register - your user ID and password will be emailed to you. Register at: <http://www.rmit.edu.au/library/dds/register>

Useful RMIT University Library websites

For postgraduates:	
Postgraduate information	http://www.rmit.edu.au/library/postgraduates
If you are researching:	
Literature Review	http://www.rmit.edu.au/library/litreview
Identifying and finding theses	http://www.rmit.edu.au/library/guides/thesis
Referencing (citing) resources tutorial	http://www.rmit.edu.au/library/info-trek/referencing
EndNote – for bibliographic management	http://www.rmit.edu.au/library/endnote
Postgraduate Information Research Skills Tutorial	http://bastian.lib.rmit.edu.au/ch700/
Staying up to date:	
Staying current with your research	http://www.rmit.edu.au/library/guides/research
The latest databases on trial	http://www.rmit.edu.au/library/trial
Check what is new in the collections	http://www.rmit.edu.au/library/newitems
Keep up to date with libnews	http://www.rmit.edu.au/library/libnews
Help:	
Teaching and Learning support	http://www.rmit.edu.au/library/strategy
Liaison Librarians	http://www.rmit.edu.au/library/librarians
Information research skills	http://www.rmit.edu.au/library/infoskills
e-Query: Online reference service	http://www.rmit.edu.au/library/assistance

ALL YOU NEED TO KNOW ABOUT INTELLECTUAL PROPERTY & COMMERCIALISATION

Objectives

- Provide information about RMIT policy related to intellectual property matters and postgraduate supervision;
- Consider, in particular, intellectual property issues for industry based research, joint publications and other public research outcomes;
- Give opportunity for input from Commercial and Legal and for specific issues to be raised and debated;
- Provide examples of research endeavours in which intellectual property issues have been addressed from the outset and paved;
- Examine the Copyright Amendment (Moral Rights Act 2000) in order to raise issues related to the moral rights of authors, particularly the right of attribution and that of integrity.

Content

- What is IP?
- How does RMIT manage IP
- IP issues in working with industry partners
- Contracts & commercialisation

Resources

What is intellectual property (IP)?

Article 2 (viii) of “The Convention Establishing the World Intellectual Property Office 14 July 1967” defines intellectual property as including:

- the rights relating to artistic, literary, and scientific works;
- performances of performing artists, phonograms and broadcasts;
- inventions in all fields of human endeavour;
- scientific discoveries;
- industrial designs;
- trade marks, service marks, and commercial names and designations;
- protection against unfair competition; and
- all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.

Statutory and common law protections given:

- The rights relating to artistic, literary, and scientific works;
 - Copyright Act, Patents Act, Confidentiality, Circuit Layouts Act
- Performances of performing artists, phonograms and broadcasts;
 - Copyright Act
- Inventions in all fields of human endeavour and scientific discoveries;
 - Patent Act, Confidential information
- Industrial designs;
 - Designs Act, Copyright Act

- Trade marks, service marks, and commercial names and designations;
 - Trade Marks Act, Copyright Act, Trade Practices Act and Tort of Passing Off
- Protection against unfair competition;
 - Trade Practices Act
 -

You should also consult:

Ownership of Intellectual Property in Universities: Policy and Good Practice Guide, AVCC 2002

Information and resources on IP from:

IP Australia

<http://www.ipaustralia.gov.au/>

Specifically for the tertiary sector:

http://www.ipaustralia.gov.au/ipprofessor/index_js.htm

Useful case studies on this site:

University of Canberra - Pseudomonas Vaccine

This case study demonstrates how universities and researchers can benefit from long term relationships with private sector organisations.

University of Queensland - Persistence in Pain Research

Associate Professor Maree Smith, heads the Pain Research Group in the School of Pharmacy at the University of Queensland. This case study documents her experiences in protecting research through use of intellectual property rights as well as her approach in seeking additional funding for further research.

University of Southern Queensland - Fibre Composites

This case study explains how the University of Southern Queensland utilised a royalty sharing arrangement with a private sector partner in order to benefit financially from the development of their intellectual property.

On the patent process:

<http://www.ipaustralia.gov.au/ipprofessor/a/patentprocess.pdf>

On good practice in laboratory research:

<http://www.ipaustralia.gov.au/ipprofessor/a/goodpractices.pdf>

On-line intellectual property resources:

<http://www.ipaustralia.gov.au/ipprofessor/a/Online%20resources.PDF>

On IP management:

<http://www.ipaustralia.gov.au/ipprofessor/a/publications.pdf>

Commercialisation

Activity 8

Read the following case study and answer these questions:

Is this an example of good practice?

Can you see any problems?

What would you as a supervisor have done?

If you were a member of a Commercialisation Committee considering this case what would your position be?

You are employed by the University of Port Philip Bay. You have been doing research developing new and innovative tests to detect the use of drugs in sport.

The project received substantial funds from SOCOG to develop new testing technology. Some of its results were trialled at the 2000 Sydney Olympics.

The technology is based upon the colour changing cells of frogs, called melanophores, into which human DNA is inserted. The DNA churns out cell membrane receptors that opiates will bind to. Activating these receptors triggers the colour change.

In 2001 you commenced a collaboration with the Ecole Biochem de Paris. Scientists from both organizations flirted with the concept of using different body fluids to detect the presence of drugs. Together, an innovative test was developed that uses saliva samples to detect the presence of drugs. You are very excited by this since a saliva test has obvious advantages – it is non-invasive, it can be undertaken anywhere avoiding the limitations of a urine test. Samples taken using the test are more stable than those taken from urine or blood and can be diagnosed within minutes.

The advantage of the test is that the receptors do not need to know what drug to look for. Anything that activates the opiate receptor will be detected and the test can detect new opiate type drugs. The Ecole Biochem de Paris has found that the presence of steroids can also be detected. The chemical basis of this serendipitous observation is not known as yet.

The collaboration with the Ecole has been particularly collegiate. So much so that you offered a post-doc. To a student from there who was one of the innovators of the concept of a saliva test and its method. She has accepted the post and will shortly arrive to take up the position.

Innovation

According to the Federal government innovation is about:

generating new ideas and bringing them to life as innovative and exciting new Australian products, processes, services and businesses.

For policy on innovation see:

Backing Australia's Ability Report

<http://backingaus.innovation.gov.au/docs/BAA03-04.pdf>

On commercialisation:

<http://backingaus.innovation.gov.au/Commercial/index.htm>

Some useful reading on intellectual property

Chalmers Robert, The Digital Agenda, Whose Agenda? *Intellectual Property Forum*, issue 40, March 2000, p 18.

Fitzgerald, A (editor) et al. *Going Digital- Legal issues for electronic commerce*, A Prospect Intelligence Report, Qantm Brisbane 2000

Lahore, James. Copyright and Designs, Butterworths, Sydney 1999 (Looseleaf service)

Marchese, David, Joint ownership of intellectual property. [1999] *European Intellectual Property Review* 364-369

Ricketson, Staniforth. *The Law of Intellectual Property: Copyright and Designs & Confidential Information* LBC Information Services, Sydney 1999.

Ryan, Margaret. Shetland Islands Showdown - the legality of Hyperlinks and framing technology on the Internet, *Intellectual Property Forum*, Issue 30 September 1997 p26.

Stott, C, Originality of expression, not ideas - former employee infringes copyright (1997-98) 10 *Australian Intellectual Property Bulletin* p 101-102.

WHAT IS GOOD SUPERVISION?

Objectives

- To articulate and explore your own style of supervision;
- To consider different models of supervision and their appropriateness under different circumstances;
- To understand the complexity of the role of supervisor, and in particular, to explore the concept of supervision as a pedagogical practice;
- To investigate different ways of getting feedback on your supervision practice.

Content

- Your supervision practice
- Supervision models
- Roles of the supervisor
- Mentoring
- Supervision as pedagogy
- How do you know you're a good supervisor?g

Resources

Activity 9

A checklist of supervisor functions
--

How many of these functions do you / should you as a supervisor carry out?
--

- Helping to articulate the research project
 - Choice of suitable thesis topic
 - Set research questions to be answered in the wider context, to be defined in detail by the student
- Secure resources so that students can successfully complete their project
- Direct reading
 - Books, reviews, papers; to define current research status
 - Literature review
 - Project definition
- Assess writing skills
- Motivate students in their research
 - Students should care about their research

- Help the students to develop networks
- Discuss with previous and present students, staff around them or outside the University. This will be important when looking for examiners and for jobs

- Guidance in research methods
 - Rigour of analysis
 - No short cuts
 - Initial experimental design

- Regular meetings
 - Groups &/ or individual meetings
 - Scheduled every 2/3 weeks (or equivalent for part-time students)
 - Discussion & interpretation of results
 - Review of progress
 - Redefine thesis chapters

- Organisation of reports, papers
 - Aims; conclusions; evidence; argument

- Paper preparation throughout candidature leading to thesis chapters

- Keep note of correspondence/meetings with the students (Very important if the student does not want to cooperate. Involve the Research Degrees Coordinator if problem arises)

- Be flexible in ways of interacting with students

- Keep a close eye on student's progress

- Care of students
 - Give support, feedback; be positive

- The project must belong to the student not the supervisor by the end of the degree
 - The student must take over the project definition and planning

- The student must be working independently as a researcher
 - Outcomes of the project must ultimately depend on the student not the supervisor

Activity 11

What evidence do you have that you are a good supervisor? List the tools you use to find out whether you're doing a good job.

Tool/Indicator	Why it indicates you're doing a good job

Here is what students think of the quality of their supervisory experience

What HDR students say about supervision

Graduate Destinations Survey & Postgraduate Research Experience questionnaire, 2003 - data on HDR students who graduated in 2002

Sample size: 110 HDR graduates

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	NA
supervisor provided good guidance on topic selection and refinement	8%	11%	22%	34%	21%	5%
supervision was available when needed	5%	12%	15%	26%	36%	6%
My supervisor/s provided additional information relevant to my topic	8%	11%	15%	32%	28%	6%
My supervisor/s provided helpful feedback on my progress	6%	5%	20%	27%	38%	5%
My supervisor made a real effort to understand	5%	9%	8%	30%	42%	6%
I received good guidance in my literature search	9%	16%	27%	26%	17%	6%

The table indicates that students are most dissatisfied with their supervisors over:

- topic selection and refinement 19%
- availability of supervisors 17%
- additional information relevant to topic 19%
- guidance in literature search 25%

Models of supervision

Not all supervision needs to be one-on-one. Here are some different ways of supervising:

Workshop supervision:

an approach to supervision in which both students and supervisors are brought together for a series of workshops on, for example, putting together a research proposal, writing a literature review, editing each others' work, or other issues common to all research students (Conrad et al. 1992). The main aim is to develop research and writing skills in a supportive small group made up of both students and supervisors (Zuber-Skerritt & Knight 1992a, b).

Directed team supervision:

this approach uses one supervisor with a number of students (Conrad et al. 1992). This approach works well when the students are working on related projects, either on discrete parts of an umbrella project or using similar methodology within a discipline area.

Methodology group supervision:

this model is an extension of directed team supervision, but cross-disciplinary (Conrad et al. 1992). This approach might work well with a group of students all doing, for example, action research projects, in different discipline areas.

Cohort supervision:

this is a group supervision approach common in professional doctorates with specific intake times (Pearson 2000). It has also been used successfully in supervising external international students (Wisker 1999, 2000). Students go through an induction period as a cohort, meet their supervisors and other advisors, do some coursework relevant to their research program (eg research methodology) and set up their social support networks. In some cases this period is residential, though not in all cases (Wisker 2000).

Activity 12

Using the list above of supervision models, list the advantages and disadvantages of each. Which model(s) do you or have you used? Under what circumstances? Which worked well and why?

Model	Advantages	Disadvantages	When to use?

The role of the supervisor is undoubtedly complex. Here are some possible roles and characteristics.

Characteristics	Roles
<ol style="list-style-type: none"> 1. Knowledgeability 2. Enthusiastic 3. Helpful 4. Attentive 5. Available 6. Involved 	<ol style="list-style-type: none"> 1. Innovator (make improvements, solve problems, envision changes) 2. Broker (use influence to connect candidate, acquire resources)

<ul style="list-style-type: none"> 7. Caring 8. Stimulating 9. Objective 10. Actively participating 	<ul style="list-style-type: none"> 3. Producer (production of thesis, keeping student focussed, production of papers, talks) 4. Director (clarify priorities, communicate goals, provide direction) 5. Coordinator (coordinate project, oversee timelines and milestones, help create order) 6. Monitor (monitor progress, know what is required, ensure revisions of plan) 7. Facilitator (build teams, manage conflict, support student) 8. Mentor (develop students, provide empathy and caring) 9. Integrator (assign roles, reflect on supervision process)
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Activity 13

With reference to the above list of roles and characteristics write down the different aspects of your relationships with your students. How many different ones do you fill and when?

Role	When	Why

Malfroy & Webb (2000) criticise the managerial model of supervision on the grounds that it does not adequately describe the high level of intellectual commitment to the student by a supervisor, and the assumption that the manager/supervisor organises and constructs the environment for the student.

They propose a model that addresses three aspects of the supervision relationship:

- the intellectual relationship
- the operational and technical aspects of the relationship
- the personal relationship.

The roles they identify in this model include:

- Facilitator (providing support, advice and monitoring progression)
- Director (setting boundaries and ensuring the student works within them)
- Intellectual Catalyst (supporting energy and motivation, developing mutual rapport)
- Mentor (distant, but available, comfortable and supportive)
- Partner (an equal participant in the research project, a collaborator)
- Friend (a role characterised by trust, as of a 'foster parent')

(Malfroy & Webb 2000)

Model for describing supervision relationships

Intellectual aspects	Operational aspects	Interpersonal aspects
Facilitator	Structured	Mentor
Director	Semi-structured	Partner
Catalyst	Unstructured	Friend
Intellectual aspects of supervision		Example comment
Facilitator	Support, advice, checks to see student doing well	'If he gets stuck I'll help him'
Director	Set clear boundaries, close contact	'The role of the supervisor it to see that students don't wander too far away'
Catalyst	Mutual rapport, free and open discussion	'You can't learn from a formula..need to adapt to students..have to have courage to innovate

Operational aspects of supervision		Example comment
Structured	Meet regularly at fixed times	'We have regular weekly meetings..regular contact avoids misunderstanding
Semi-structured	Meet fairly regularly but not at prescribed times	'We meet regularly if possible but we have long sessions at other times when needed'
Unstructured	Flexible arrangements..no set times	'Sessions are informal..no clear agenda...just evolving..available when needed

Interpersonal aspects of supervision		Example comment
Mentor	Professional aspects, positive but with some distance	‘Our styles are compatible and communication is very easy’
Partner	Both parties bring equal and special qualities and supervisor expects growing autonomy from the student	‘I don’t think anyone coming into a PhD should be seen as lesser in intellectual capacity than the supervisor’
Friend	Relationship similar to a family...student is prepared to be sent out into the world	‘Supervisor needs to be trusted and give the right guidance’

Activity 14

How would you characterise your role as a supervisor in terms of the above aspects?

Mentoring

There has been much emphasis in the literature on supervision about the importance of mentoring skills in research supervisors (eg Leder 1995; Shannon 1995; McWilliam 2002).

Activity 15

Do you already act as a mentor to your students? In what ways are the skills of a mentor relevant for supervising research students?

Mentoring skills	How are they relevant

Activity 16

Ask your student(s) to complete the diagnostic quiz on what makes a mentor. Discuss the outcomes with them and then list the qualities described.

- I listen to the whole issue before commenting.
- I give advice but still expect the mentee to make their own decisions.
- I always find time to help.
- I always question thoroughly to find the real issues.
- I always give honest opinions.
- I have a good range of networks and contacts that can be utilised appropriately.
- I am not intimidating - I'm easy to approach at any time.
- I know what I am talking about - I am good at my own job.
- I look for the reality within which a mentee works.
- I always focus on mentee needs during a mentoring session.
- I don't get irritated by a mentee who doesn't get the point quickly.
- I am an optimist.
- I am encouraging.
- I am always well prepared in advance.
- I am a positive role model in terms of my own achievements.
- I can help a mentee believe in their potential.
- I am open to new ideas.
- I know when to introduce options which may not have been considered.
- I can challenge assumptions skilfully.
- I am a positive person.
- I possess great patience.
- I am interested in people.

- I am an active listener.
- I am non-judgmental.
- I feel comfortable about having my views challenged.
- I am enthusiastic about mentoring.
- I am very knowledgeable about developmental issues.
- I am tolerant.
- I don't expect a mentee to be like me.
- I am prepared to learn with the mentee.
- I can give feedback skilfully.
- I can allow a mentee the freedom and confidence to make mistakes.
- I see my mentees as equals.
- I have sound judgement.
- I am able to distance myself, and maintain objectivity.
- I am keen to allow mentees to make their own decisions.
- I keep in regular contact with those I mentor.
- I take an interest in the individual mentee - I value their views and what they say.
- I am able to probe beyond the superficial.
- I can provide the space for a mentee to express their feelings.
- I can draw out a mentees' ideas and I'm willing to use them.
- I have a true passion for developing others, and really believe in the value of development.
- I can avoid the temptation to direct conversation back to myself and my issues and experiences.
- I can challenge constructively and directly to get to the heart of the matter.
- I won't just tell a mentee what they want to hear.
- I never appear keen to get a mentoring meeting over with and move on to the next thing.
- I don't talk about my own achievements too much.
- I have a genuine desire to empower.
- I am responsive to my mentee.

Shannon (1995) describes mentoring in the research supervision context as "a process of socialisation into a sense of the significant issues in a discipline", with the supervisor providing a kind of role model for the student. Kram (1983) describes the functions of a mentor in a work context in two spheres: career and psychosocial.

Career functions	Psychosocial functions
Sponsorship Exposure and visibility Coaching Protection Challenging assignments	Role modelling Acceptance and confirmation Counselling Friendship

From Kram 1983

Activity 17

Describe how you see these functions in the context of research student supervision. Do you provide any of these functions to your students? If so, how?

Functions	Provided?	How?

The mentoring relationship may continue beyond the task of completing a research degree and will almost certainly change over time as the student moves from novice to competence. Kram (1983) describes four phases of the relationship:

Initiation: the student 'hero-worships' the supervisor, and the supervisor has high expectations of the student

Cultivation: the relationship becomes more realistic. Both supervisor and student benefit from a stimulating and supportive mutual relationship

Separation: the student needs the supervisor less as they become more independent. There may be some conflict

Redefinition: the mentoring relationship becomes primarily a friendship. Supervisor may continue to provide career mentoring from a distance.

Supervision as pedagogy

Whilst supervision can be described as pedagogy it is probably best not to include it in the domain of teaching and learning. The term 'pedagogy' because it foregrounds the importance of *relationships*. It could be argued that:

Supervision is particular form of pedagogy in a larger scene of higher education pedagogies. What makes supervision is its role in transforming the student from reproducer of knowledge to producer, a transition that is challenging at many levels

Barbara Grant Pedagogical Issues in Research Education, In M.Kiley & G.Mullins (2000) *Quality in Postgraduate Research: Integrating Perspectives*, CELTS, University of Canberra

Activity 18

What do you think are the ways that supervision differs from other types of teaching?
How does your personal approach to supervision differ from your teaching practice?

Approach to supervision	Similar/ different to teaching?

Grant (2000) poses the question: How does supervision differ from other forms of teaching? She suggests a number of differences:

- the unusual intimacy of the relationship over a number of years
- the complexity of the power relationship
- the pedagogy of supervision is known to the supervisor but not to the student
- there is a large imbalance between supervisor and student in what is at stake
- personalities play a large role in the relationship

For more ideas, look at the references in the list: the Australian Universities' Review had a special issue on postgraduate pedagogy in 1995.

Activity 19

What do you think are the key factors in successful supervision? Look at the list below and rate them in terms of their importance

Rating scale:

Vital 1
Important 2
Desirable but 3
not essential

- Interest and strong motivation for research
- Well matched research interests
- Regular supervision meetings
- Open communication
- Clarified expectations
- Manageable goals
- Agreed and adhered to deadlines
- Well designed research proposal
- Writing throughout the candidature
- Effective time management
- Effective fear management
- Threat-free and stress-free atmosphere

Here is a quote that could sum up the essence of what supervision is about:

The supervisor has a vital role to play in the successful completions of research degree programs. The supervisor must *manage* the process. Good supervisors are innovative, creative problem-solvers, resource oriented, work focused, decisive, dependable, technically expert, a facilitator, caring and empathetic. Supervisors are able to assess which of these qualities are needed at different times in the course of the research journey and to deliver each of these qualities with expertise, ease and care. That is they are able to take a helicopter perspective of the research process and its needs and to accurately assess their own capability as a supervisor.

Tricia Vilkinas Management of the PhD Process: The Challenging role of the Supervisor, In M.Kiley & G.Mullins (2000) *Quality in Postgraduate Research: Integrating Perspectives*, CELTS, University of Canberra

Some useful reading on supervising and supervision: specific themes and good practices

Bowen WG & Rudenstine LN (1992). In Pursuit of the PhD. Princeton University Press, New Jersey.

Clegg S & Gall I (1998). The discourse of research degrees supervision: a case study of supervisor training, Higher Education Research and Development, 17 (3) 323-32.

The language of supervisors who were participating in a training program leading to a Professional Diploma in Research Award Supervision was studied. Analysis revealed three principal underlying source metaphors in their descriptions of supervision:

- *the supervisor is a parent*
- *the supervisor is a resource*
- *the PhD is a journey*

Coe E & Keeling C (date unknown). Setting Up Peer-Mentoring With Postgraduate Research Students. SRHE/THES Guide No 6.

Connell R (1985>. How to supervise a PhD, The Australian Universities' Review 28, 38-41.

Conrad L (ed) (1994). Developing as Researchers. Griffith Institute for Higher Education, Griffith University, Brisbane.

Chapters on disciplinary contexts, funding, peer support and writing by many well-known and respected Australian educators.

Deegan MJ & Hill MR (1991). Doctoral dissertations as liminal journeys of the self: betwixt and between in graduate sociology programs, Teaching Sociology, 19, 322-32.

A little over-the-top in style, but makes an excellent point that too often our postgrad students are not assisted to reach professional maturity.

Delamont S, Parry O & Atkinson P (1998). Creating a delicate balance: the doctoral supervisor's dilemmas, Teaching in Higher Education, 3 (2) 157-72.

Interviews with supervisors of research students emphasise the difficulty of managing neither to dominate the student's research nor to neglect it.

Fraser R & Matthews A (1999). [An evaluation of the desirable characteristics of a supervisor](#), Australian Universities Review, 42 (1) 5-7.

This paper proposes a model of postgraduate supervision which broadens the traditional focus on 'expertise' to include support for the student and the capacity to balance creativity with criticism in supervision. Based on this model, it reports results of a survey of postgraduate students in the Faculty of Agriculture at UWA investigating desirable characteristics of a supervisor. It finds that students clearly rank non-expertise-related characteristics of supervision which provide support and which balance creativity with criticism as more important overall than expertise-related characteristics. It uses these results to argue for staff development opportunities to be enhanced to enable academics to receive training in these areas for supervision competence which are ostensibly unrelated to expertise.

Gurr GM (2001). Negotiating the 'rackety bridge' - a dynamic model for aligning supervisory style with research student development, Higher Education Research & Development, Vol. 20, No. 1.

Heath Trevor (2002) A Quantitative Analysis of PhD Students' Views of Supervision, Higher Education Research & Development, Vol. 21, No.1.

Hockey David (1995) Getting too close: A problem and possible solution in social science PhD supervision, British Journal of Guidance & Counselling, June95, Vol. 23, Issue 2, p199, 12 p.

Hockey John (1994) Establishing boundaries: Problems and solutions in managing the PhD Supervisor's role, Cambridge Journal of Education, 0305-764X, June 1, Vol. 24, Issues 2.

Hockey, John (1996) Motive and meaning amongst PhD supervisors in the social sciences, British Journal of Sociology of Education, Dec, Vol. 17, Issue 4, p489, 18p.

Holbrook A & Johnston S (eds) (1999). Supervision of Postgraduate Research in Education, Review of Australian Research in Education, No 5. Australian Association for Research in Education, Coldstream Vic.

Lee A & Green B (eds) (1995). Feature edition: Postgraduate Studies/ Postgraduate pedagogy, Australian Universities Review, 38 (2). (Republished as Postgraduate Studies/Postgraduate Pedagogy. University of Technology Sydney, Centre for Language and Literacy and the University Graduate School, Sydney.)

Linden Jitka (1999) The Contribution of Narrative to the Process of Supervising PhD Students, Studies in Higher Education, 0307-5079, October 1, Vol. 24, Issue 3.

Mahony M-J (1997). Making the most of research supervision at a distance. Paper presented at the Annual Conference of the Australian Association for Research in Education, 30 Nov-4 Dec, Brisbane.

Government and higher education imperatives together with a rising demand for postgraduate qualifications are driving an increase in postgraduate enrolments. Postgraduate research supervision, a specialised form of teaching, is thus becoming a teaching and learning issue of increasing importance, especially when coupled with the increasing number of postgraduate students undertaking programs at a distance. While supervision of postgraduate students at a distance has always been with us and in the 1990s it is an increasing practice, it has as yet been little examined in Australia compared with the more traditional campus-based supervision. Results of a preliminary enquiry addressed to supervisors of postgraduate research students, with a focus on expectations, practices and perceived value of postgraduate research at a distance using a SWOT (strengths, weaknesses, opportunities and threats) framework will be reported. Issues arising from results together with preliminary recommendations at institutional and practitioner level will be discussed.

Nightingale P (1991). Initiation into research through writing, Zeitschrift fur Hochschuldidaktik, 4, 419-30.

Supervisors of research students have the responsibility of initiating novice researchers into the final stages of becoming discipline specialists. One aspect of this initiation is learning to report the research as required in theses and dissertations. Supervisors who fill the role of mentors assist students to understand the requirements and guide them through the processes of researching and of writing. Students who learn the power of writing as a tool to help them conduct research will also be likely to submit focused, well-constructed and well-documented research reports. This article discusses some of the difficulties in explaining the criteria by which theses and dissertations are judged, and it suggests some strategies supervisors may recommend to students who find writing difficult.

Nightingale P (1986). Improving Student Writing. HERDSA (Green Guide No. 4), Sydney.

Emphasises importance of teachers encouraging students to use writing as part of the learning process, not just to report what they have learned for assessment. Also concerned with clarifying expectations, providing good feedback.

- Nightingale P (1984). The education, training and employment of postgraduates, *Research and Development in Higher Education*, 7, 209-21.
- Pearson M (1996). Professionalising PhD education to enhance the quality of the student experience, *Higher Education*, 32, 303-20.
- Pole Christopher (1998) Joint Supervision and the PhD: safety net or panacea? *Assessment & Evaluation in Higher Education*, Vol 23, No.3.
- Powles M (1989). How's the Thesis Going? Former Postgraduates' and their Supervisors' Views on Lengthy Candidature and Dropout. Centre for the Study of Higher Education, University of Melbourne, Melbourne.
- Powles M (1988b). Know Your PhD Students and How to Help Them. Centre for the Study of Higher Education, University of Melbourne, Melbourne.
- Wisker G & Sutcliffe N (1999). Good Practice in Postgraduate Supervision. SEDA, Birmingham.
- Zuber-Skerritt O (1992). Starting Research: Supervision and training. Tertiary Education Institute, Brisbane Qld.
- Zuber-Skerritt O (ed) (1996). Frameworks for Postgraduate Education.
- Zuber-Skerritt O & Ryan Y (1994). Quality in Postgraduate Education. Kogan Page, London.

GETTING TO KNOW YOUR STUDENT

Objectives

- To clarify your and your students' expectations of the supervisory relationship, and what research and research degrees are about;
- To develop and implement your own personalised template for supervision agreements with your students.

Content

- The supervisory relationship
- What is research and what is a thesis
- Supervision agreements

Resources

The relationship between student and supervisor is complex and dynamic; it is different for every student; it changes as the student progresses; and it lasts for the duration of the candidacy and beyond. There are knowledge and power differentials between student and supervisor, and students often require emotional as well as intellectual support. New research students often do not know what is required in a research degree; this lack of understanding covers not only the administrative requirements but also the language, thinking and analytical style of research in a particular discipline. For these reasons it is important to take some care at the beginning of the relationship to set out expectations and responsibilities explicitly and publicly.

How do you supervise students?

Activity 20

Rate the items below in terms of what you believe are the most important aspects in a good working relationship with your student:

Rating scale:

Vital 1
Important 2
Desirable but 3
not essential

- The student is capable of handling theories and concepts at an advanced level.
- The supervisor selects a research topic for the student.
- The student is able to work independently.
- The student is willing to acquire new research techniques and skills.
- The supervisor is always available when the student needs help with his/her research.
- The student selects her/his own research topic.

- ❑ The supervisor leaves the student alone to get on with his/her (the student's) work.
- ❑ The student and supervisor like each other.
- ❑ The student and supervisor negotiate on how often to meet to discuss the student's research.
- ❑ The supervisor understands the particular difficulties involved in being an international student.
- ❑ The supervisor and student jointly decide on the student's research topic.
- ❑ The supervisor tells the student exactly what to do and when to do it.
- ❑ The supervisor is a critic of the student's work.
- ❑ The supervisor helps the student to write the student's thesis.
- ❑ The student and supervisor interact with respect and formality.
- ❑ The student and supervisor have a teacher/pupil relationship.
- ❑ The student and supervisor interact as colleagues.
- ❑ The supervisor takes an interest in the student's personal welfare.
- ❑ The student does what the supervisor says, even if he/she disagrees with the supervisor.
- ❑ The student initiates discussion with the supervisor when he/she disagrees with the supervisor.

The supervisor-research student apprenticeship has been described as “the most important channel of intellectual inheritance between one generation and the next” (FAUSA, 1979). Despite its importance, surveys of completion rates and levels of student satisfaction indicate a less than ideal situation. Grant & Graham (1994) have commented on the level of ‘wastage’ in the system that results from students receiving a less than ideal experience in postgraduate research. Powles (1989) found that one-quarter of the postgraduate research students she surveyed were either “dissatisfied” or “very dissatisfied” with their experience. Of this group, 31 percent cited problems with the supervisory relationship. This was also reflected in the findings of her survey of University of Melbourne postgraduates, in which concerns relating to meetings with their supervisors were the most commonly reported problem (Powles, 1988). Phillips and Pugh (1994) indicate that this phenomenon is not isolated to Australia, commenting that communication breakdown was “rampant” between the students and supervisors in UK.

Activity 21

Could you describe your style of supervision?

You may find it useful first to complete the questionnaire **Opinions about research supervision** (below) You can use this questionnaire with your student when you are getting to know each other and sorting out your expectations of each other

Opinions about research supervision

It is the responsibility of the School to ensure that any student who is admitted can cope with research work at the postgraduate level.

YES

YES

NO

NO

It is the responsibility of the student to acquire research skills during the program.

The supervisor should be appointed by the School.

YES

YES

NO

NO

The student should choose the supervisor.

It is the supervisor's responsibility to select a promising topic.

YES

YES

NO

NO

It is the student's responsibility to select a promising topic.

In the end, it is up to the supervisor to decide which theoretical frame of reference is most appropriate.

YES

YES

NO

NO

Students have a right to choose their own theoretical standpoint even if it conflicts with the supervisor's.

The supervisor should direct the student in the development of an appropriate program of research and study.

YES

YES

NO

NO

The supervisor should act mainly as a sounding board for the student's ideas and give advice.

Staff-student relationships are purely professional and personal matters should not intrude.

YES

YES

NO

NO

Close personal relationships are essential for successful supervision.

The supervisor should initiate frequent meetings with the student.

YES

YES

NO

NO

It is up to the student to decide when s/he wants meetings with the supervisor.

The supervisor should know at all times what the student is doing. YES NO YES NO

Students should have the opportunity to find their own way without having to account for how they spend their time.

The supervisor should terminate supervision if s/he thinks the project is beyond the student. YES NO YES NO

The supervisor should support the student right through until the thesis has been submitted, regardless of her/his opinion of the work.

The supervisor should insist on seeing drafts of every section of the thesis in order to review them. YES NO YES NO

It is up to the student to ask for constructive criticism from the supervisor.

The supervisor has direct responsibility for conveying the standard the project is expected to meet and seeing that it does so. YES NO YES NO

The supervisor advises only and leaves all decisions concerning content, format and standards to the student.

The supervisor should assist in the actual writing of the thesis if the student has difficulties. YES NO YES NO

The supervisor should be very wary of contributing too much to the thesis.

The supervisor should ensure that the thesis is finished not much later than the minimum period. YES NO YES NO

As long as the student works steadily s/he can take as long as s/he needs to finish the work

The literature on supervision of international or non-English-speaking students identifies differences in cultural assumptions about knowledge and learning as one of the problems those students face (eg Scott 1998; Aspland 1999; Denicolo & Pope 1999). This problem is not necessarily restricted to international or NESB students;

domestic research students now are also culturally and socially diverse, and a discussion of learning styles and attitudes to scholarship may lead to some very interesting points for clarification between a supervisor and student.

What makes a successful researcher?

Activity 22

Below is a selection of attributes of successful researchers. Rate them in order of importance. Ask your student(s) to do the same and compare your ratings.

- high level of intelligence
- open-mindedness
- creativity
- courage
- clear-thinking
- independent decision making
- patience
- even temperament
- risk taking
- pleasure in experimenting
- originality
- lateral thinking
- diligence
- awareness of different levels of consciousness
- love of wide reading
- clear writing skills
- physical fitness
- humility
- strong educational background
- drive
- good organisation skills
- perseverance
- curiosity about natural phenomena
- imagination
- meticulous attention to detail
- integrity
- practical aptitude
- self-discipline
- ability to be critical of own work as well as that of others

The supervisor/student alignment model

The Supervisor/Student Alignment Model proposes that the overall aim of the PhD, irrespective of its discipline area, is to lead the student to develop *competent autonomy*. This is defined as the ability of a researcher to, independently of any supervisor, be cognisant of the norms, expectations and standards within their discipline and be able to assess their own plans and actions to ensure compliance with these. This concept is in general agreement with the remark that supervision is “ultimately about teaching the student to be their own supervisor” (Phillips, 1992). The *model* is built on the premise that development of this attribute over the course of candidature is profoundly (though not exclusively) influenced by the style adopted by the supervisor at various stages. There is, therefore, a need to seek an alignment between the student’s stage of development and the style of supervision being applied at any given stage of candidature. Obviously the level of autonomy a student is able to cope with will tend to increase over candidature and the concept of alignment demands that there is an equivalent change in supervisory style over this time. This aspect of the model is an extension of the notion that there is a need for a balance to be achieved between giving adequate, timely help and not interfering (Parry and Hayden, 1996). The *tool* derived from the model provides a means of gauging the degree of alignment between student needs and the supervisory style employed at any time within a given student/supervisor relationship. In doing so it seeks to promote a more active role for the student in diagnosing their needs and influencing the style of their supervisor.

We will return to the alignment model later in the workbook.

Activity 23

Use the **Conceptions of Research Inventory** (below) as a starting point for discussions with your students on what research is about. This inventory is part of a research project put together by a consortium of researchers at the University of South Australia, Durham University (UK), University of Canberra, University of Adelaide and the University of the North (South Africa) to look at how researchers in different locations, different cultures and different levels of experience view the task of research.

(See over)

1. Research is exclusively concerned with gathering information about something	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
2. Research results alter how we think about things	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
3. Methodologically there is basically only one correct way to carry out research	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
4. The information, techniques and perspectives that flow from research alter the way in which problems are perceived	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
5. Research synthesises old and/or existing knowledge to create new insights	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
6. Research just means collecting information about something	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
7. Research means investigating something that is already known	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
8. Doing research is like painting; each new insight contributes to an emerging picture	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
9. Research is basically about comparing new results with what is already known	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
10. The main purpose of research is to identify problems that need to be solved	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
11. Research means discovering a truth that was not known before	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
12. Research is basically a process of analysing factual information	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
13. Research is mainly about searching for information that could previously have been found	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
14. Research gathers information on a certain topic and then uses the findings to analyse the data obtained	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
15. Research is basically concerned with uncovering the truth	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>

16. Research on a particular topic can never be complete	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
17. There are particular sequences or activities that always define 'good' research	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>

18. Research is essentially about discovering something that already exists, but that is hidden	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
19.	
20. Research consists of nothing more than collecting data	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
21. Research is about revealing the truth	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>

22. In answering or understanding something new ideas present themselves for further investigation	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
23. Research literally means 're-search'; searching again to identify what was previously overlooked	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>
24. Good research specifically gathers data that will support the researcher's preconceived ideas	Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Unsure <input type="checkbox"/>

Activity 24

Are you satisfied with your supervisory relationship with each of your students? Why/why not? List aspects of the supervision where things are going well and those where they are not.

Aspects	Going well	Going not so well

Student-Supervisor problem

Activity 25

Understanding the causes of student-supervisor problems

Read the following case study, then type in a list of factors that you believe created problems for this student and her supervisor. Don't worry about thinking up solutions yet - just try to identify the problems.

Problems identified in the case study

Case study: An academic minefield

The discipline is one which does not often attract postgraduate students. Staff are anxious to improve this deficiency, and indeed, have been under some pressure to do so. A student of foreign background applies to enter a PhD program. She suggests a thesis topic which is challenging and unusual, but which could prove "unpopular" with at least one faction in the subject area. It is almost certain to be controversial, but a member of the staff, a senior academic, is also interested and feels she can supervise, offering appropriate guidance to someone who may be entering an academic mine field.

The student however is not the strong applicant the supervisor might have hoped for. She had attempted a Masters by research and received only a bare pass. Over the course of that candidature her English expression had improved but is still not good. However she is persistent and keen – and a little vain and hard to discourage. The supervisor warns her of possible failure but agrees to support her application believing that there is a real possibility of her succeeding.

The work progresses slowly. The supervisor worries about its quality but at no stage does she feel certain that there is no hope for the student and that her candidature should be terminated. Nevertheless she frequently tries to warn the student that the work has serious deficiencies. The student does not heed these warnings. Annual reports are lukewarm but recommend continuing.

After five years the thesis is submitted and fails; two examiners fail it outright, the third says that he does not wish to rule out re-writing without interviewing the candidate but he is willing to be guided by other examiners' opinions.

On several specific criticisms the examiners disagree with each other, one praising a brief section of the work and another condemning it. All find it repetitious, poorly presented and 'thin' in terms of content.

The student writes an anguished letter about the justice of being failed outright when there are such inconsistencies in the reports. She also accuses the supervisor of, at best, misleading her, and of making no effort to defend her.

Formulating your own recommendations

The second part of this case study contains extracts from the student's letter to her supervisor and from the supervisor's report to the University.

Read the case study, formulating your own recommendations, and reviewing others' suggestions for preventing such a situation.

From the student's letter to her supervisor

I was shocked to experience your inclination to line up with the verdict the examiners have made.

...What really disturbs me is not so much that my work has been overlooked, as your acceptance of the examiners' criticism without questioning its validity. I am surprised that there is nothing you could or can do to prevent such a clear case of injustice.

As you know it is with your approval that I submitted my work. After five years of hard work supervised by an authority in the field, I find it incomprehensible that the work is worth nothing. I do not, of course, mean that your approval should guarantee the total success of my work, but can you sincerely believe that I have no reason to expect that my work is not even worthy of re-submission?

I was shocked to learn outright that I had failed when you yourself, of course at my request, had promised me that you would find out the position of my work before the examiners had made their final decision. Reading through the reports it is quite obvious that most of the confusion the examiners had (which they

interpreted as defects in my work) could have been resolved had this been done. Even though this may not be an 'official practice' I am aware that there are situations when students are given this opportunity.

From the supervisor's report to the University

At the stage when she considered her work ready for submission, I had already gone through it twice, in almost final draft, quite apart from the many readings and criticism of earlier stages of it. I could not, at that stage, feel that further criticism and aid from me could result in much improvement, and she had been working on it (though I think that she had a good deal less than her whole time to devote to it) for over five years. I made the judgment during the final six months of preparation of her work that in order for it to be submitted within a reasonable period of time, I should attempt no further major criticism or advice and concentrate on helping her attend to details. The examiners point to faults in her English, for example, and it might reasonably be thought that she should not have been allowed to present her thesis in a form which would allow such criticism. I must admit that having already given a great deal of time to detailed literary criticisms of trial sections of her work, I had to leave it up to her to use those sections as a model, and to cope with the rest herself....

With respect to the substantial criticisms of her work, I had, as I have explained, my own reservations about the overall quality of the work but it seemed to me, after a certain stage, that it would be fruitless, and, indeed, damaging to confront the candidate with them. This, more than anything, I think, explains her present shock that I did not seriously object to or question the examiners' reports....

The most serious criticism...is that the thesis is repetitious, contains too few examples, and as I would put it, contains too few points. These are the faults which, as supervisor, I could not see how to correct. The thesis was repetitious just in that it contained too few good points....

Make your recommendations

What can be done to avoid such situations? A good recommendation is always directed to someone specific, not just thrown up in hope that anyone will take responsibility.

List your recommendations for these stakeholders:

Stakeholders	Recommendations
Students	<i>eg listen carefully to supervisor's advice</i>
Schools	<i>eg ensure that there are timely and thorough review processes</i>
Portfolios	<i>eg ensure that examiners are carefully chosen</i>
University	<i>Eg ensure that staff development opportunities are available and accessible</i>
Any one else?	

Supervision agreements

There has been much discussion on the role of supervision agreements in recent years (eg Ryan 1994; Yeatman 1995; Love & Street 1998).

Criticisms of a contractual approach to supervision include that it is:

- Too mechanistic (does not acknowledge the complexity of the relationship)
- Too facile
- Too rigid (fails to recognize the dynamic nature of the supervision relationship)
- Too rights-based (may encourage adversarial relations)
- Too confusing

However, these potential weaknesses can be avoided by negotiating agreements that are:

- Specific about timelines, responsibilities and goals
- Renegotiated regularly to take into account changes in the student's capacity for independent work, unexpected developments in the project and other changes in the relationship (eg periods of absence of supervisor)
 - Collaborative rather than directive.

NB Supervision agreements do not have legal status. This should be made clear at the start of any negotiations.

Activity 26

Some supervisors think agreements are a great idea. Others think they're managerial, restrictive, overbearing and smack of 'big brother'. What do you think? Set out your arguments for and against the use of agreements or learning contracts. Put together an outline of what you think should be explicitly negotiated in a supervision agreement

What needs to be agreed?	Why?

The main elements of a supervision agreement that need to be discussed and negotiated are:

- **Roles and responsibilities** (Principal and other supervisors, student, any industry collaborators)
- **Timelines** (major milestones, turnaround times for feedback, dates for review of agreement)
- **Meetings** (frequency, responsibility for calling/setting agenda, responsibility for recording outcomes)
- **Authorship on publications**, whether to publish during candidature or not

- **Agreement on topics** open for discussion, ie an agreement that the *process* of the research degree will be discussed as well as progress (eg personal issues such as emotional state and conflicts with other life roles).

Other issues that could be discussed include:

- Access to coursework
- Access to research or editorial assistance
- Funding available
- How to solve conflict (roles of Head of School, Research Degree Co-ordinators)
- Ethics
- What is originality? (Grant & Graham 1994; Phillips 1994)
- What constitutes a thesis; expectations of outputs, formats

Example of a supervision agreement:

Meetings

- Meetings can be called by student or supervisor and are set by negotiation
- Frequency will vary according to the stage and tasks in hand
- Once a meeting has been arranged except for extenuating circumstances the meeting will take place regardless of whether or not the designated action has been taken

Role as candidate

- Take main responsibility for arranging meetings and deadlines
- Pursue further reading with regard to research approaches
- Make presentations and/or publications during the research program
- Record notes of main items discussed

Role of senior supervisor

- Respond to progress developments at each meeting
- Make notes of meeting and send electronic copy after meeting to candidate
- Respond to drafts / assignments
- Inform candidate of relevant workshops and/or conferences which would assist the development of the research
- Make sure candidate is aware of all relevant policies and procedures
- Encourage candidate to publish and/ or present during the course of the research program
- Provide on-going encouragement and realistic goal-setting

Role of associate supervisor

- Provide periodic critical feedback on drafts
- Stand in for principal supervisor by prior arrangement

Timelines

Short-term

- Research method assignment:
- Research proposal

Longer-term

- Progress reviews
- Preliminary fieldwork:
- Fieldwork
- Writing up
- Submission

Publications

- Candidate to be sole author unless senior supervisor has contributed heavily
- Senior supervisor's input acknowledged according to level of input

What is a thesis?

Here is what RMIT considers a thesis to be:

General Definition

For the purposes of a research award, a thesis is defined as a proposition which is maintained by argument. This argument should be—

- Logical, systematic and orderly
- Linear and proceed through *inference* where one part of the argument leads to the next and so on.

Characteristics of a thesis (or dissertation)

Content and approach

1. A thesis is an essay of defined length.
2. A thesis is not merely an exposition of a problem. Rather, it analyses a problem and argues a case for its solution.
3. A thesis is a traditional academic strategy for providing answers or solutions to a to a specific problem or question.
4. A thesis contributes to knowledge as it is defined by a specific discipline or disciplines.
5. It is primarily this contribution which is assessed by members of this knowledge field.
6. An essential aspect of a thesis, therefore, is its review of existing knowledge. This is often referred to as a 'literature review'. Very often a thesis will have a discussion of the current state of knowledge. However, the thesis should also acknowledge the contribution of other authors and contributors throughout the argument. These should be duly acknowledged through attribution and formal referencing.

Format and style

1. A thesis is generally submitted for examination in bound paper form. It is normally organized in chapters and in accordance with standard rules of argument, grammar, punctuation and written expression.
2. A thesis is a written document which may supplement language with images, charts and diagrams which are essential to the argument and which can be printed on paper.
3. The standard format of a thesis, therefore, is a bound paper copy for the purposes of submission. The thesis may, however, be archived in electronic form.
4. A thesis may be supplemented by footnotes and appendices which contribute to, or provide additional evidence for, the thesis. Appendices may, therefore, be constituted in a range of media and forms.

A candidate doing a research degree by thesis should conform to these definitions and characteristics. The candidate may present an alternative thesis as additional to this standard but not normally as a substitute. A candidate who wishes to present a thesis for examination which does not conform to this standard should explain precisely –

1. Why the proposed material should be considered a thesis.
2. Why the standard does not meet the candidate's specific requirements.
3. How the proposed material is to be examined.

Some useful reading on student-supervisor issues

Aspland T (1999) 'You learn round and I learn square': Mei's story. Chapter 3 in Ryan Y & O Zuber-Skerritt (eds) *Supervising Postgraduates from Non-English Speaking Backgrounds* The Society for Research into Higher Education, Buckingham.

Denicolo P & M Pope (1999) Supervision and the overseas student. Chapter 6 in Ryan Y & O Zuber-Skerritt (eds) *Supervising Postgraduates from Non-English Speaking Backgrounds* The Society for Research into Higher Education, Buckingham.

Grant B & A Graham (1994) 'Guidelines for Discussion': A tool for managing postgraduate supervision. Chapter 14 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education* Kogan Page, London.

Love A & A Street (1998) Supervision as collaborative problem-solving: an integrative approach to postgraduate research education. pp 149-159 in Kiley M & G Mullins (eds) *Proceedings of the 1998 Quality in Postgraduate Research Conference*, Adelaide.

Phillips E (1994) Avoiding communication breakdown. Chapter 11 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education* Kogan Page, London.

Ryan Y (1994) Contracts and checklists: practical propositions for postgraduate supervision. Chapter 13 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education* Kogan Page, London

Scott M (1998) The PhD as an apprenticeship in writing pp 215-228 in Kiley M & G Mullins (eds) *Proceedings of the 1998 Quality in Postgraduate Research Conference*, Adelaide

Wisker G (2000) Cross-cultural research supervision and research at a distance: issues for postgraduate students and supervisors pp 43-49 in Kiley M & G Mullins (eds) *Proceedings of the 2000 Quality in Postgraduate Research Conference*, Adelaide

Yeatman A (1995) Making supervision relationships accountable: graduate student logs. *Australian Universities' Review* 2/1995:9-11

SUPERVISION MEETINGS – SETTING GOALS & GIVING FEEDBACK

Objectives

- To reflect on the nature of supervision meetings, their purpose and ways to approach them;
- To develop your goal-setting skills;
- To develop skills in giving constructive feedback;
- To consider strategies for recognising and effectively dealing with conflict.

Content

- The supervision session
- Setting objectives
- Giving feedback
- Dealing with conflict

Resources

Activity 27

What do you do in your supervision sessions with your students? What triggers your supervision sessions? Do you have formal agendas or do you just chat about progress? Does your approach work? Why/why not? How do you know?

Content of supervision session	Trigger	Does it work?	How do you know

Activity 28

Checklist for supervision sessions

Here is a checklist about supervision sessions that you may wish to use to set some guidelines for your own sessions. Tick those you are currently doing or intend to do.

- Were you prepared for the meeting?
- Was the opening informative and relaxed?
- Was the meeting structured appropriately and the main points to be covered summarized?
- Did you seek clarification or check understanding from the student?
- Did you raise or ask if there were any other issues to discuss?
- Was the time set aside for the meeting used effectively?
- Did you treat the student as an individual, valuing their particular skills and contributions and not a stereotype?
- Are you certain that you treated the student fairly, in accordance with equity principles and policies and anti-discrimination legislation?
- Were exchanges frank and open or guarded?
- Was there too much readiness on the student's part to agree or disagree with you?
- Did you use appropriate questioning techniques (open questions)?
- Did you interrupt or talk too much and ignore any leads or suggestions?
- Did you reject other viewpoints too easily?
- Did you check your understanding of your student's comments?
- Has the session improved your relationship with your student?
- Did you discuss obstacles that may hinder progress?
- Did you check on your student's motivation?
- Did you minimize or completely avoid difficult issues and realities?
- Did you react emotionally at any point?
- Did you use your authority or 'put down' the student to try to settle disagreements or conflict instead of negotiating, reasoning and listening?
- Will progress be encouraged as a result of the discussion?
- Was anything not fully resolved – do you need to get back together?
- Did the physical arrangements provide for open and relaxed discussion (eg seating, privacy, comfort, freedom from interruptions)?
- Did you both leave the meeting with a clear understanding about what is expected by your next meeting?
- Is there a written record of the outcomes of the meeting?
- Did you set a time for your next meeting?
- What action do you need to take to improve the process for next time?

Recording

With research funding now strongly tied to research student completions, managing the progress of a research student has become critical. Closer involvement in the progress of your students is inevitable along with a shift towards more 'managerialist' approaches to managing candidature. Proper documentation particularly of progress reviews is essential.

It is also recommended that a record be kept of every supervision session. As an example of what can be done, Yeatman (1995) presents an approach to the supervision session that uses a logbook to manage both the supervisor-student relationship and the student's progress. The logbook approach provides both structure and accountability by setting out the student's goals for achievement before the next meeting and points for discussion on progress made since the previous meeting. After each supervision session, the student writes no more than two pages about the meeting in proper sentence and paragraph structure, ending with the tasks for the next meeting. This log is presented to the supervisor for feedback on both the content and the writing, and both student and supervisor keep a copy. The log provides the basis for discussion at the next meeting.

While this approach may seem tedious and time-consuming, it need not be, and there are many advantages in having written records of the meetings:

- The student gains practice at writing and the supervisor can identify problems with the student's writing early;
- The approach provides structure for meetings and a clearly defined plan for the student;
- Expectations of the student and supervisor can be explicitly stated and managed;
- In bleak moments, the student can look back over the log and see how much progress s/he has made, how s/he has overcome problems in the past and a clear path towards completing the thesis.

Goal-setting

Goal-setting is an important aspect of supervision.

Objectives are most effective when they are SMARTER:

- **Specific:** does the objective explain precisely what has to be achieved?
- **Measurable:** does the objective indicate how the results will be measured?
- **Acceptable:** the student should be driving the process of setting the goal. In the initial stages of the research, the student will probably need more guidance than in the later stages of the degree.
- **Relevant:** is it clear how this objective fits into the overall research plan?
- **Time-framed:** is there a clear timeframe attached to the objective, and is it realistic?
- **Extending:** the goal should stretch the capabilities of the student, but not so that it becomes unachievable.

- **Rewarding:** achievement of the goal needs to be something the student can be proud of. Don't forget to acknowledge and celebrate (in a small way) the achievement of the student's goals. This is a major factor in keeping students motivated (see for more on motivation).

The responsibilities of the student and you as supervisor need to be clearly spelled out. For example, you may agree on a goal to read a certain number of papers on a topic relevant to the student's research and write a short critique of the topic. The student may ask you to help them with finding the seminal paper/s to start them off. You need to agree between you exactly how far that assistance extends - do you give them copies of the papers, give them the references or send them in search of a reference librarian.

Activity 29

Practice setting goals with your students. Go through an exercise with one of your students to set one goal for achievement in the next week or two. Make sure the goal is SMARTER. After the timeframe is up, discuss with the student how setting the goal together made them feel, whether the goal was achieved and whether the process was worthwhile. Write their responses down and reflect on what you got out of the process. If you don't believe in collaborative goal-setting, be careful you don't sabotage the exercise by choosing a student who thinks like you. Remember that different people work in different ways and the onus is on you as the supervisor to find the approach to supervision that best suits the student and will contribute most to getting the student finished on time, with a good thesis, and sane.

Goal	Was it achieved? Why or why not?	How did the student feel about collaborative goal-setting?	What did you get out of collaborative goal-setting?	Will you do it again? Why or why not?

Feedback

Research students are just learning about research and may be understandably sensitive about their ideas and draft writing. Critical feedback can be absolutely devastating to an insecure student if it is delivered unsympathetically or in an offhand manner. The art of giving constructive, critical feedback is one that can be learned, but requires empathy, self-discipline and a genuine desire to help.

Feedback needs to be

- **Specific.** Focus on specific examples of where work can be improved.
- **Timely.** Give feedback as soon as possible after an event. You may wish to specify expected turnaround times in your initial negotiations with the student. The longer you wait to give feedback, the more entrenched bad habits become.
- **Frequent.** Feedback need not be only given in formal supervision sessions. You could stick your head around the student's door/cubicle and tell them their seminar went well, or that you enjoyed reading their last draft chapter.
- **Factual.** Don't be tempted to make judgements about the student's attitudes or personality. Focus instead on specific behaviours or examples of writing/presentation. Be objective, fair, respectful, honest, sincere and direct. Never say 'never' or 'always'.
- **Constructive.** Even if the work is appalling, you need to give an indication of the way forward. Give specific examples, make suggestions about where to find help if you can't provide it (for example, a person who has expertise in research methods, a reference librarian, a study skills expert), or provide a model for the student to copy.

For example, compare the following statements:

Unhelpful	Helpful
<i>This is good.</i>	<i>You have clearly developed your argument using appropriate reference and good sentence and paragraph structure. Well done!</i>
<i>Your writing is not improving.</i>	<i>You still need to pay more attention to sentence structure, grammar and spelling. For example [insert specific examples here]. You may find it useful to read Longman's Guide to English Usage and/or see one of the language people in International Student Services. Don't forget to use the spelling and grammar checker in your word-processing program before you give drafts out for comments.</i>
<i>Didn't understand a word of your seminar.</i>	<i>I found your use of jargon and technical terms confusing. It's a good idea to present your work in language an intelligent lay person can understand.</i>

Activity 30

What do you do in your supervision sessions with your students? What triggers your supervision sessions? Do you have formal agendas or do you just chat about progress? Does your approach work? Why/why not? How do you know?

Examples of feedback you have written on your students' work:	How did your student react to each piece of feedback?	What can you do to improve your feedback?

Conflict

Some conflict with your students is inevitable.

Partly conflict is an unavoidable consequence of being in an intimate (if professional) relationship for a lengthy period of time, and partly it is a useful and healthy by-product of the increasing confidence and maturity of your student, rather like the conflict in families when teenagers start spreading their wings. Nevertheless, as in families, it is important to deal with conflict in healthy ways. The student must be supported to completion, which means that both student and supervisor must maintain a functional working relationship.

Toncich (1999) classifies conflicts between students and supervisors into four categories:

- **Interpersonal** (issues with whether the student and supervisor like each other, arguments, communication)
- **Belief system/alignment** (judgements on approach to work, expectations)
Technical (disagreements over methods, findings)

- **Ethical/Moral** (disagreements over authorship, falsification of results, appropriate acknowledgement of sources)

With the exception of the fourth category, Toncich (1999) claims that problems can be overcome with self-discipline and professionalism. Ethical and moral issues need to be referred to higher authority within the university (eg a School/Portfolio Research Committee or postgraduate coordinator).

Activity 31

What conflicts have you come across in your supervision practice and how have you resolved them?. Complete the checklist below to help you answer.

Conflict Resolution Checklist

(See over)

Walk a Problem Through These Questions

1. Win/Win

What is my real need here?

What is theirs?

Do I want it to work for both of us?

2. Creative response

What opportunities can this situation bring?

Rather than "how it's supposed to be", can I see possibilities in "what is"?

3. Empathy

What would it be like to be in their shoes?

What are they trying to say?

Have I really heard them?

Do they know I am listening?

4. Appropriate assertiveness

What do I want to change?

How will I tell them this without blaming or attacking?

Is this a statement about how I feel, rather than what is right or wrong?
(Be soft on the people, hard on the problem)

5. Co-operative power

Am I using power inappropriately?

Are they?

Instead of opposing each other, can we co-operate?

6. Managing emotions

What am I feeling?

Am I blaming them for my feelings?

Will telling them how I feel help the situation?

What do I want to change?

Have I removed the desire to punish from my response?

What can I do to handle my feelings? (e.g. write it down, talk to a friend, punch a mattress)

7. Willingness to Resolve

Do I really want to resolve the conflict?

Is resentment caused by:

something in my past that still hurts?

something I haven't admitted to needing?

something I dislike in them, because I won't accept it in myself?

8. Mapping the conflict

Define briefly the issue, the problem area, or conflict in neutral terms that all would agree on and that doesn't invite a "yes/no" answer e.g. "Filing" not "Should Sal do filing?"

Alongside Who: write down the name of each important person or group.

Write down each person's or group's needs. What motivates him/her?

Write down each person's or group's concerns, fears or anxieties.
 Be prepared to change the statement of the issue, as your understanding of it evolves through discussion or to draw up other maps of related issues that arise.

Issue :			
Who :	_____	Who :	.
Needs :	.	Needs :	_____
	.		_____
	.		_____
Concerns :	.	Concerns :	.
	.		.
	.		.
	.		.
Who :	_____	Who :	.
Needs :	_____	Needs :	_____
	_____		_____
	_____		_____
Concerns :	_____	Concerns :	.
	_____		.
	_____		.
	_____		.

9. Designing Options

What are the possibilities? What seems impossible might yield good ideas.

What options give us both more of what we want? Be creative, mix and match.

10. Negotiation Skills

What do I wish to achieve? Be really clear about the general outcome, though you may change your route there.

How can we make this a fair deal - with both people winning?

What can they give me?

What can I give them?

Am I ignoring objections? Can I include them?

What points would I want covered in an agreement?

Is there something that could be included to help them save face?

Is saving face important to me? Do I particularly need anything?

11. Mediation

Can we resolve this ourselves or do we need help from a neutral third person?

Who could take on this role for us?

Is mediation the most appropriate role for me in this? If so:

How would I set up and explain my role to both parties?

Can I create the right environment for people to open up, understand each other and develop their own solutions? What might help?

12. Broadening Perspectives

Am I seeing the whole picture, not just my own point of view?

What are the effects of this beyond the immediate issue? (e.g. on other people or groups)

Where might this lead in the future?

HELPING YOUR STUDENTS TO WRITE

Objectives

- To identify your own approach to writing tasks;
- To understand the psychological barriers to writing that your students may develop, and consider strategies that will avoid or overcome these;
- To consider ways of organising writing and the circumstances under which different organisational methods might work;
- To develop skills in assisting your students with literature reviews.

Content

- The process of writing
- Psychological barriers
- Organising a body of work
- Helping your student do a literature review

Resources

Activity 32

As a first step, consider how you approach writing. Say you are preparing a paper for publication in a prestigious journal.
 How do you approach the task?
 What are the elements of writing you enjoy?
 What are the elements you dislike and how do you get around them?

Approach to the task	
Enjoyable elements	
Elements you dislike	
How do get round these?	

Activity 33

How do you go about helping your students? Some supervisors do as little as make minor editorial comments in the margins of students' work. Others spend hours revising structure, commenting on grammar, syntax, spelling and style, suggesting reading, asking questions and making comments. This style of feedback raises an ethical question about how much is the student's work and how much the supervisor's. How much editing is 'reasonable'.

How do you help students with their writing?	
Minor editorial comments	
Revising structure	
Grammar, syntax, spelling, style	
Suggested reading	
Asking questions/ making comments	
How much editing is reasonable?	

Writing can be a terrifying experience for research students, particularly if they have not had much experience at writing and arranging complex thoughts and ideas. There has been much written on how to write, how to overcome blocks, how to prepare a thesis. It is generally acknowledged that the psychological barriers to writing are shared by all writers, no matter in what field they practice. These barriers include:

- The crippling belief that the material has to be perfect first time;
- The fear of exposing oneself by not having read enough, not having done enough work, not knowing everything;
- The belief that large amounts of time must be set aside for writing;
- Being over-awed by the huge undertaking that is a research thesis.

Activity 34

What strategies do you use to help your students overcome their fears of writing? List the strategies and the problems they encounter and compare with the list below

Strategy	Problem

- Encourage students to write often and early, using reading logs, journals, and writing up small sections of work as it is completed (eg writing a justification for a particular methodology) (Nightingale 1992). These small pieces of writing may or may not be included in the thesis, but will give the supervisor a chance to give constructive feedback on writing style and will reduce the student's psychological barriers to writing the thesis.
- Encourage students to write initial drafts in 'stream of consciousness' format, then revise the draft a few days later into a logical structure (Fairweather 1993, cited in Gottlieb 1994). Just getting thoughts on paper will help.
- Ensure that feedback is timely, constructive and specific (see). It is especially important that you as a supervisor recognise that presenting a piece of writing is an enormous emotional risk to some students; an empathetic response will avoid compounding the student's fears.

- If fear of criticism is the cause of the block, ask the student to identify someone whose criticism will not be as frightening and submit work to them first.
- Break down the thesis into bite-sized chunks to reduce the size of the undertaking

Structure

Students' theses are not often criticised for grammar, syntax and spelling, but for lack of clarity, failure to make a philosophical stand, repetition, and lack of cohesion (Nightingale 1992). These are issues of logic and structure, which can be easily solved by careful planning.

Activity 35

<p>How do you decide on the structure of your own writing? Do you just write it and hope it follows a logical structure? Do you write down headings first? Do you start with a stream of consciousness and only after the content is down on paper, organise it into a logical structure? Is structure important in your discipline? Write a 'procedure' for writing that works for you. Do you think this way of organising writing will work for everyone? What other ways of structuring writing do you know of?</p>

How do you decide on the structure of your own writing?	
Is structure important in your discipline?	
What procedure works for you?	
Is this likely to work for everyone?	
Do you know of any other ways of structuring writing?	

Brown (1994) argues for a framework for each chapter based around the answers to seven questions:

1. What did you do?
2. Why did you do it?
3. What happened?
4. What do the results mean in theory?
5. What do the results mean in practice?
6. What is the key benefit for the readers?
7. What remains unresolved?

He suggests that you set a 50 word limit for questions 1-5 and a limit of 25 words for question 6. There is no word limit for question 7. Thus, the answers to the questions form the basis of an evolving working abstract for each chapter and for the thesis as a whole. Brown introduces two formats for writing: the suspense format (builds up to the important point at the end) and the journalist's pyramid (the most important point is made first), and argues that good scholarly writing can amalgamate the journalist's pyramid with the traditional IMRAD structure (introduction, materials and methods, results and discussion) (Brown 1994).

Zuber-Skerritt & Knight (1992) present examples of heuristics for organising ideas.:

- A cause and effect flow chart
- A comparison table
- A descriptive flow chart
- A concept map and
- Gowin's (1981) 'Vee' diagram

Knight (1996) provides a more complex example of a concept map, along with clear instructions on how to complete one. A concept map is a visual representation of a body of knowledge which identifies major concepts and their relationships. They can be used both to construct text and to deconstruct text (Bruce & Brameld 1999) The concept map 'takes away the fear of the monolithic nature of the task ahead by segmenting the project into manageable sections' (Gottlieb 1994). Other advantages identified by Gottlieb (1994) include:

- Clarifying the student's thinking;
- Developing a systematic approach to the task;
- Identifying priorities and eliminating irrelevant topics;
- Clarifying the structure of the written work; and
- Helping identify limits in time, size of project, funds.

Literature reviews

Bruce (1994) describes literature reviews as both a process and a product. The process involves the student exploring the literature for understanding of their research area, defining their question in the context of the literature and finding out about the issues surrounding their research area. The product is a chapter (or contribution to more than one chapter) in the thesis. Thus, students will need assistance in literature searching, critical reading, keeping track of their reading and in writing and structuring the literature review.

The six ways students see literature reviews are:

1. As a list
2. As a search
3. As a survey
4. As a vehicle for learning
5. As a research facilitator
6. As a report

Each of these conceptions may be useful at different stages of developing a literature review. What is not useful is for a student to hold only a limited conception of a literature review, for instance as a list, and to fail to recognise that the literature review may help them identify or clarify their research question, and that the review is itself a report needing shape, structure and sophisticated organisation.

It is important to note here that we should not think of individual students as having particular conceptions. Rather they use one or more of the conceptions of which they are aware at a particular time. It is the role of the reflective model to help them expand their repertoire of conceptions and encourage them to think about their literature review as something other than an exercise in literature searching.

The supervisor can assist students with their literature reviews by:

- Monitoring students' literature review achievements;
- Exploring students' conceptions of the literature review;
- Dealing with the problem of the scope of the literature review;
- Encouraging a reflective approach to literature searching; and
- Encouraging them to bridge the gap between literature searching and writing.

Bruce (1994, 1996)

Activity 36

Consider these questions in relation to your students' progress on their literature review:

What is the present state of the list of references?	
Is it up to date in areas of present interest?	
Is it adequate?	
What literature searching has been done in the last fortnight?	
Are there any new areas that have become interesting where a search may be needed ?	
What has been read recently?	
Has there been time to read recently?	
What has been learnt from the literature this fortnight?	
Has there been any change, in any way, in understanding of the area in which the work is being done?	
Is what has been read going to influence the research in any way?	
Has it provided any ideas that need to be considered and incorporated?	
Is there a need to reconsider how what has been read fits into the research?	

What is a literature review?

A literature review is a well-organised discussion of published (and sometimes unpublished) research and scholarship relevant to an area of study. The literature review demonstrates that the student has acquired a full professional grasp of their research area. A good literature review also puts forward an argument for the research that will be done; it points the way towards future work. The literature review will continue to develop as the research progresses. Eventually it will probably form a chapter in the thesis.

Format

- Are the aims/ goals of the literature review included in the introduction?
- Is the research focus made clear/
- How well is the literature review structured?
- Are the headings/ sub-headings used appropriately to help the reader navigate the subject area?
- Is there a conclusion to the review?
- Are main points summarised and future research directions suggested?

Content

- Is the nature of the material reviewed appropriate?
- Are important authors /research papers included in the review?
- Is the coverage of the literature sufficient ... for the moment?
- Are there any key items/ areas overlooked?
- Has the work been synthesised – does it provide a coherent representation of the field? Or is the review pointing to previous work in a disconnected manner?
- Has a critical approach to the literature been taken (identifying important contributions, comparisons, strengths and weaknesses)?
- Does the review show appropriate depth of thinking for the degree being undertaken?

Presentation and Expression

- Is the quality of English expression and punctuation of appropriate standard?
- Has the chosen referencing system been used correctly?

Characteristics of Strong and Weak Literature Reviews

Areas in which literature reviews are commonly deficient include:

- exclusion of landmark studies
- emphasis on outdated material
- adopting a parochial perspective
- not being critical
- not discriminating between relevant and irrelevant material
- lacking synthesis

The literature review is the second most frequent chapter of the thesis to be criticised by examiners. Common criticisms:

- failure to use recent literature
- lack of critical assessment

- not relating the literature review to the research questions or hypotheses
- incorrectly interpreting sources

How to improve

- include current literature as well as material of historical interest
- aims of the review are clearly stated
- the range of resources from which literature has been gathered are identified
- a breadth of knowledge of the area is demonstrated
- a strong argument is developed justifying the nature of the recommended line of research
- organisation and structure of the review are made clear to reader
- the review should be interesting to read

The material above is based on research and scholarship by:

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Peggy Nightingale assisted in converting the published materials into an online resource.

Activity 37

Comment on problems you have observed in student writing and compare your understanding to the example below

Problems you have observed in student writing	Comparison with example below

While most supervisors have become successful writers of research reports themselves, they often find it difficult to make explicit what they have learned about writing in their own fields. Explicitly explaining the structure and style of a type of writing. In the case of supervisors of research students, the thesis is the genre students need to understand.

It is important to encourage supervisors to discuss the structure of a typical thesis within their discipline because:

- Students often engage in trial-and-error strategies in drafting sections of their theses. These are time-consuming for both student and supervisor and can be minimised if students clearly understand their goals as writers.
- Written language is at the heart of researching. Not only is it the means of communicating the researcher's contribution to knowledge, it also helps the researcher clarify and discover what their contribution actually is.

The importance of writing

Highly developed skills in using written language are absolutely fundamental to the conduct of research. The process of becoming a researcher is as much a process of becoming a "wordsmith", a master of language, as it is of becoming an expert in your field. Written language is at the heart of researching, and plays the following different roles in the process of grappling with your research:

Written language helps you in your *discovery* of knowledge through:

- Clarifying your understanding through reading;
- Gathering written material that is relevant to your research interests;
- Discovering how knowledge in a particular field has been developed and accumulated;
- Identifying what is still unknown;
- Confirming that your own research is worthwhile to do;
- Discovering what methods have been used by others to make their discoveries.

Written language helps you in the *communication* of your knowledge through:

- Consolidating your understanding through explaining what you know to others through writing about it;
- Contributing to the pool of knowledge generally through disseminating your discoveries.

Written language becomes the *currency* of knowledge through:

- Persuading others of a particular point of view;
- Changing the world through this persuading;
- Presenting yourself as an expert in a particular field of knowledge.

Writing is just thinking captured at a particular point in time. It is like a snapshot of your thinking at that time. Sometimes what you write might be fairly immediate thoughts and reflections, for example, your lab notebook. Other times, you might be writing about things as they happen, for example, making notes during an interview you are conducting, or while you are observing something. Sometimes you might be writing very considered thoughts long after the events that might have prompted them, for example writing your final research report will provide some examples to help you explain to your students the structure of a thesis.

Written language is the researcher's *versatile toolkit* without which the research cannot come alive. One of your tasks as a supervisor of research students is to help them develop their skills as writers of research.

The overall shape of a thesis

Remember that not all research projects will have the section headings of Method/ Results/Discussion. This is because not all research is of a type that collects original data (for example, through surveys or through experimentation). There are many other types of research which are based on pre-existing data. For example, some projects are based entirely on published literature. For such projects, there is no need to outline a specific methodology: the research method involves essentially reading and thinking, and the major tool is the pen or the word processor.

Students may have trouble keeping the sections clearly separated. However, readers rapidly become confused if, for example, results drift into methods, or discussion appears in the reporting of results.

The sections of a thesis

- Here is a list of sections commonly found in theses.
- Are there some sections that are not usually found in theses in your discipline?
- Are there any additional sections commonly found in your discipline?
- Is this the usual order?
- What variations have you seen from your discipline's "norm"?

Title _
Disclaimer _
Acknowledgements _
**Abstract or
Summary**
_
Table of contents _
Table of figures _
Abbreviations _
Glossary of terms _
Introduction _
Literature review _
Research objectives _
Methodology _
Results _
Discussion _
Conclusion _
Recommendations _
References _
Bibliography _
Index _

The table of contents

Here is a sample of a section from a very effective Contents page from a previously submitted research report at the University of Western Sydney (Lisa Bricknell, "Personal Health Records:the perspective of service providers").

Table of Contents

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Why is this example so effective?

There are two main reasons:

- **Reader-friendly lay-out**

Sections are distinguished by different layout settings:

- bold face;
- all upper case;
- larger initial capitals;
- italics;
- two layers of indents from the left margin.

This makes it very easy to see the structure of the contents, so it helps the reader to understand at a glance how the parts of the report fit together.

- **Reader-friendly section headings**

There are two types of section headings. Some have structural titles such as:

- 1.0 INTRODUCTION
- 1.1 AIM, OBJECTIVES AND STRATEGIES

These titles are not controversial. They must be in a particular sequence (with minor possible variations), and they appear in most research reports. They serve the important purpose of helping the reader see where the structural breaks come between major sections of the thesis.

Other headings have meaningful titles that give one or more main keywords such as:

- 1.2.3 The PHR in practice

1.2.3.1 Professional support

These sub-headings are meaningful in that they capture the essential meaning of the content within the sub-sections. The choices of keywords depend utterly on the content of the research. Often a combination of these two types of section titles is the best way to help a reader come to understand a thesis, both through getting the feel for its structure, and getting a foretaste of its key topic areas and substantial content.

Supervisors should encourage students to show their Table of Contents to someone else, preferably someone who doesn't know much about their research project, to see if it makes sense to them.

The title

It is important to keep in mind some key characteristics of effective titles:

- Effective titles are not so brief that they are almost meaningless; nor are they too long that they become an effort to read. At least the title must include the main key words that indicate the topic area of the research project.
- But instead of simply containing key words indicating the topic area, effective titles often include words that tell something more about the research project. The title might indicate something about the objectives of the project, the methodology undertaken, the findings and their significance. You might think of this as the difference between saying *what* the project was about, and saying *why* it was undertaken, *how* it was carried out, and *so what*- that is, why the findings are interesting or important. Often the title for your project proposal will simply indicate the *what*, because at the beginning, you don't know what you're going to find. But your title for the completed report will be able to indicate much more about how you did it, and what you found out, because by the end you'll know what the significant points are that you want to highlight.
- Often it is useful to have a double-barrel title with the first part giving the topic area (*what*), and the second part giving the *so what*. Usually, the two parts are separated by a colon.
- Whilst it is good to have a title that can capture your reader's interest, it is also advisable to avoid titles which depend on the reader's local knowledge of highly topical events or issues. A title that is amusing or highly topical now may not continue to be so in a few years time.

Example The evolution of a final title

- The Queensland Personal Health Record
Focus on *what* the project is about
- An Evaluation of the Queensland Personal Health Record
Focus on *why* the project is being done—its purpose is to evaluate
- An Evaluation of the Queensland Personal Health Record: The Perspective of Service Providers
Focus on *which* group the project is interested in—and suggesting a type of methodology
- Using Service Providers' Perspectives to Improve the Queensland Personal Health Record
Focus on *what was done* in the project—its goal is to improve practice
- Using the Queensland Personal Health Record to Create Partnerships to Improve Children's Health
Focus on *so what*— specifically how the project's results could be used to improve practice

The title in this example has been changed to make it increasingly focused on the *so what*. The first title is very much just about the broad topic area. The next versions are becoming more

focused on the particular aspect of the topic area that was looked at. But the final title is much more focused on the message that the writer wants to get across.

The introduction

The introduction to the report is critical in grabbing and holding your reader's attention. The following table sets out the usual stages in setting out the introduction. Keep in mind that the introduction is basically an argument - it's where you justify that your research project has been worthwhile to do.

Basic argument structure

1 Establishing the field by:

- a) asserting centrality; or
- b) stating current knowledge.

This stage introduces the topic of the project by showing that the field is significant, and/or that the research is relevant by stating what is known.

What is it about?

and

So what?

2 Summarising previous research

This stage provides a more detailed summary of previous research, presented from the frame of reference of this research.

What do we already know about this?

3 Preparing for present research by:

- a) indicating a gap; or
- b) raising a question

This stage justifies the need for this research by showing that there hasn't been enough research in this area yet, or that there have been problems with the previous research.

What do we still not know?

4 Introducing present research or this research report by:

- a) stating purpose; or
- b) stating outline of report

This stage clarifies what the present research is about, either by stating its purpose as a logical consequence of the argument preceding, or by outlining the structure of the report.

What am I going to do to find out?

There are some things that an introduction does *not* include. For example an introduction is not the place to make recommendations, nor is it the place to give away any of the findings of your research.

These stages typically appear in most introductions to research reports of varying lengths, from journal articles to theses. You should also be able to identify them in introductions to research proposals. Of course, they are not always in the same order and sometimes the boundaries are blurred. However, it is a big help to inexperienced writers to have a template like this to guide them in constructing the introductions to their research reports.

The Stages of an Introduction

Example: short introduction to a short article

The following paragraph represents the complete introduction section of an article in a professional journal. Note how the introduction structure develops across its four main stages.

The perceptual and conceptual abilities of very young children between 1 and 3 years of age have received little attention in comparison to the abilities of pre-schoolers and, more recently, newborns and infants under a year of age (cf. Siegel, 1967). Among the deterrents to research on learning with 2-year-olds is

a general suspicion that such children are highly distractable and will display a variety of error factors (eg. Harlow, 1950, 1959) or task-irrelevant behaviours. Successful discrimination learning in children under 2 years of age has been relatively difficult to demonstrate (e.g. Hill, 1965; Weisber & Simmons, 1966; Welch, 1939), and many investigators report children over 3 display various response and stimulus biases (e.g. Berman, Rane & Bahow, 1970; Greene, 1964; Levinson & Reese, 1967). But research on a limited number of 2-year-olds suggests that under appropriate conditions, discrimination learning may proceed with very few errors, particularly after the initial discrimination has been acquired (cf. Gellerman, 1933; Hayes, Thompson & Hayes, 1953; Welch, 1939). Stimulus and response biases have been reported for this group as well as older children (e.g. Gellerman, 1933; Graham, Erhart, Craft & Berman, 1964), but it remains unclear whether these biases dominate and generally interfere with cue-guided behaviour or whether they are simply initiated because of inadequate understanding of instructions or other aspects of the learning task. Thus, one purpose of the present study was to determine how rapidly two-choice discrimination learning tasks can be solved by 2-year-olds and how pervasive stimulus and response biases are in performances on such problems.

Here we have the first part of an introduction to a project report. After reading the material what would you say about the stages that appear here?

Stage 1

Introductory statement about current understanding in the topic area, from the perspective of significant gaps in understanding.

Stage 2

Summarising the main findings from previous research

Stage 3 "...but it remains unclear..."

Indicating a gap in present understanding, and thereby preparing for the objective of this research

Stage 4

Introducing this research's objective

As you are reading articles and research reports, look closely at the structure of their introductions to see if they follow this same pattern.

Example: Beginning to an Introduction; first part of a longer introduction section

Personal Health Records (PHRs) or similar documents have been introduced throughout Australia (Queensland Health, 1994) and in other countries including the United Kingdom and New Zealand gradually over recent years (Macfarlane & Saffin, 1990). The premise behind a client held record is to provide the parent with an easily accessible source of information to allow them to take responsibility for their child's health (Charles, 1994; Macfarlane, 1992; Dauncey, 1991; Volkmer, Gouldstone & Ninnes, 1993). It is clear, however, that for a Personal Health Record (PHR) to be effective, it must serve as more than a simple documentation of immunisation and development for the parent. PHRs therefore must be redesigned to ensure that they support a better partnership between parents and health professionals.

What are the weaknesses of this brief passage?

- *No broad statement(s) to establish what the general field is; no statements to indicate the significance of this topic within the general field.*
- *The introduction is not an appropriate place to make recommendations; there has been no justification leading up to such a recommendation.*

Now try looking at longer research reports to see if they also follow this pattern in their structure.

Example Beginning to an Introduction
Rewritten first part of a longer introduction section

Trends in the health care system in recent years have been moving away from the traditional consultative “medical” model towards a more flexible community based approach where communities are encouraged to take responsibility for their own health. It has now become the responsibility of health providers to forgo the practice of “owning” clients (Jackson, 1991) and move towards a partnership or team approach between individual and health professional to further health.

Personal Health Records (PHRs) or similar documents have been introduced throughout Australia (Queensland Health, 1994) and in other countries including the United Kingdom and New Zealand gradually over recent years (Macfarlane & Saffin, 1990). The premise behind a client held record is to provide the parent with an easily accessible source of information to allow them to take responsibility for their child’s health (Charles, 1994; Macfarlane, 1992; Dauncey, 1991; Volkmer, Gouldstone & Ninnes, 1993). It is clear, however, that for a Personal Health Record (PHR) to be effective, it must serve as more than a simple documentation of immunisation and development for the parent. PHRs are particularly effective if they are used as the primary record of a child’s health and development recording all significant health events and decisions in a child’s life. The partnership of parents and health professionals working together to promote health is advanced by the use of a PHR which enhances communication between health professional and parent and between the various health professionals involved in child health care (Charles, 1994; Macfarlane & Saffin, 1990; Campbell & Halleran, 1993; Macfarlane, 1992; Whitney *et al*, 1993).

Identify the stages in this passage. Why is this more effective?

- *General field of “health care system” is introduced.*
- *General interest in “community based approach” within this system is introduced.*
- *Particular philosophy of “partnership” is introduced.*
- *It is now clear where the topic of this project fits.*
- *Basic premise for judging the effectiveness of a PHR is introduced.*
- *Repetition of the key concept of “partnership” which the whole research project is oriented towards*

The review of literature

The process of reviewing the literature is a fundamental, and usually preliminary, part of any research project. It serves a number of purposes in helping to set up a project in the first place:

- bibliography a collection of relevant sources
- annotated bibliography a summary of relevant sources
- survey of literature (including “state of the art” surveys)
- a critical analysis of relevant sources showing inter-relationships amongst them, and intended to *encompass* the existing knowledge in this field

The literature review changes over the course of a project

In the *preliminary stages* of undertaking a research project, reviewing the literature helps you to:

- learn about knowledge in the particular field;
- gather material which may be useful for you in shaping your project;
- discover how knowledge in this field has been developed and accumulated over time;
- identify what is still unknown;
- to confirm that your own research is worthwhile to do;
- to discover how others have made their discoveries.

In the *final stages* when you write your final report, the literature review section is where you will establish for your reader what is the conceptual framework for your research. Whilst its purpose is to critically inspect the previous literature, the underlying goal is to justify to your reader that your own research has been worthwhile doing in the first place. It is here that you show how your research adds to existing knowledge, and it therefore captures, more than anything else, the argument on which your whole research depends.

The literature review section needs to,:

- demonstrate that you understand what is known in the particular field of your research topic;
- explain how different pieces of research in that field fit together;
- explain how knowledge has been developed and accumulated over time;
- explain how your own research is connected to what is already known;
- explain how your research is justified as needing to be done;
- acknowledge the work and achievements of others.

Different types of literature reviews

At different stages of your literature reviewing process, you might produce a written document to capture your review of the literature at that time. In the early stages, your reviewing process will simply start off as a bibliography, and then as you start making notes about each of the sources you read, you will be able to produce an annotated bibliography to summarise these individual sources. Gradually as you get deeper into your reading, you should be aiming to understand the similarities and differences amongst all the sources, and critically interpret them in terms of their weaknesses and strengths.

Literature review type	Brief description
Bibliography	A collection of relevant sources
Annotated bibliography	A summary of relevant sources
Survey of the literature	Critical analysis of relevant sources showing inter-relationships amongst them, and intended to encompass knowledge in this field
Thesis literature review	Critical analysis of relevant sources showing inter-relationships amongst them, and intended to extend knowledge in this field

The table shows these different types of literature reviews progressively becoming more interrelated and probing of all the sources you are reviewing. At the final stage of the research when you complete your written report, the review of literature will be very different because you should now be looking at the published literature very differently from the reflective stance of a researcher who has something worthwhile to add to knowledge.

From this retrospective stance of your final report, your task in presenting the literature review is to show where your research fits in to this big jigsaw puzzle. This means it is important to make sure you are presenting a critical analytical account of the literature you are referring to. One of the most common weaknesses in final literature reviews is that they are more like a series of unconnected summaries of the different pieces of literature that might be relevant to the research, without any helpful analyses and critical interpretations of why and how they are relevant.

The methodology

There must be an explicit link between the research objectives or questions and the methodology used for the study. This section will serve at least some of the following purposes to:

- indicate the theories and principles underlying the approaches adopted in the research;
- outline the methods used for achieving the research objectives;

- highlight any ethical issues or dimensions raised by the research methods or process;
- indicate the sources of data used and how these were collected and analysed.

Are there other purposes commonly served by the methodology section in theses in your discipline?

For many research studies, there is no particular research methodology since the research process is essentially one of reading, thinking and writing. For these types of studies, it may still be appropriate however to include a section here on general sources of data.

Possible Elements in the Methodology Section

Which of the following elements do you expect will need to be included in your methodology section? Which other ones not listed here?

- assumptions** _
- procedures** _
- method of data collection** _
- ethical considerations** _
- safeguards** _
- calculations** _
- precautions** _
- techniques** _
- characteristics of target participants**
- _
- sample size** _
- sampling procedures** _
- survey format** _
- interview format** _
- control groups** _
- data management processes** _
- analytical tools** _

The methodology section is usually written in the past tense, with its purpose being to outline clearly and succinctly exactly how the research was done. The most important sign of success of a methodology section is that another researcher could carry out the same research project based on the description given in this section. One of the common weaknesses of methodology sections is if they include any of the findings of the research. These must be saved up for the results section.

Discuss which elements are most likely to be required in your discipline(s).

The results

It is not possible to say a lot about the results section of a thesis without knowing something about the findings of the research. However, you can make a couple of points about what to include.

Although the content of the "results" or "findings" section is dictated by what is found in the research, writers still face the difficult task of deciding which findings to present. After all, not all that is found will necessarily be relevant to the research objectives. Student writers, in particular, find it very difficult to leave out any material, and examiners often criticise theses for lack of focus. Emphasise the importance of having a direct and obvious connection of all results reported to the stated objectives of the research. Similarly, keep in mind that one should present in the results section any findings that one intends to discuss in the next part of the report. This can include findings that you did not expect to discover, but only if you plan to explain more about them in the discussion section.

Example From results section of Journal article

Here are some of the things that research reports typically do in the results section, using an example from the results section of a journal article. This section has been adapted from Beth Murison and Carolyn Webb (1991) *Writing a Research Paper*, Learning Assistance Centre Publications, University of Sydney.

Description of the seven brands of Australian rice available on the retail market is given in Table 1. The samples of rice marketed by Ricegrowers Co-operative Mill were grown in New South Wales, and those marketed by Riviana were grown in Queensland. Sunwhite, long grain rice available in Western Australia, is produced from the IR661 cultivar grown in the Ord River region.

Data on the nutrient composition of the three types of rice was not markedly different (Table 2), the main difference being a small decrease in starch and increases in fat, sucrose and ash from white to parboiled brown rice. The changes are consistent with the known differences in composition of the bran and endosperm of rice (Araullo, de Padua & Graham, 1996). The overall composition is in the order of that reported for white rice (Item C310) and brown rice (Item C300) in the Australian food tables (Thomas & Corden, 1977).

- **Reference to Tables:** summarises what the table is about.
- **Background information:** about data presented in the Tables.
- **Reference to table**
- **Comparison between these results:** compares results found in this study
- **Comparison with other results:** compares results found in this study with other published results
- **Comparison with other results:** compares results found in this study with other published results

Perhaps a results section will comprise mostly tables, figures, graphs, and so on. That is perfectly appropriate, as it makes it easier for a reader to see findings at a glance. However, it is still important to write some text around this graphic material, as a guide to the reader. For example, you should make sure that your results section introduces each item of graphic material, referring to it clearly by its table or figure number, and summarising what the data it contains is about.

The discussion

Stages

Here are some of the things that research reports typically do in the discussion section. They are presented as stages, but remember they may not necessarily all occur in a discussion, and nor might they necessarily occur in this order. For each stage, an example is given. This section has been adapted from Beth Murison and Carolyn Webb (1991) *Writing a Research Paper*, Learning Assistance Centre Publications, University of Sydney.

The stages of the discussion described below do not all have to occur, nor do they have to occur in that sequence. However, there is often a pattern within a discussion section with a number of cycles of these stages coming throughout the discussion. The following is a common cycle of moves:

- Background information
- Statement of Result
- Reference to Previous Research (Comparison)
- Reference to Previous Research (Support)
- Explanation (of Unexpected Outcome)
- Exemplification
- Deduction
- Hypothesis
- Recommendation
- Justification of recommendation

i) *Stage within the discussion Example from journal articles*

ii) *Background information*

The writer presents information that the reader needs in order to understand the results and the comments on them.

Several recent national surveys have shown that many Americans report having changed their diets (Brown, 1996; Johnson, 1998).

iii) *Statement of result*

A generalised statement of result can be used in the Discussion to introduce an aspect of the discussion.

Age-adjusted rates of myocardial infarction, stroke, hypertension, and cancer were typically lowest among never smokers.

iv) *Unexpected outcome*

The writer comments on whether the result is expected or not.

The lack of difference in accident risk among use levels within the DWI and high risk groups might be expected since these groups as a whole have elevated accident risk.

v) *Explanation of unexpected outcome*

The writer suggests reasons for a surprising result, or one different from previous results.

A review by Strecher et al. (1996) found that for all the healthrelated studies they examined – cigarette smoking, weight control, contraceptive behaviour, alcohol abuse and exercise – self-efficacy appeared to be a strong, consistent and independent predictor of both long and short term success of behaviour change. In the present study, the self-efficacy scale was correlated with the change status, but with a correlation coefficient of only .18 ($p < .05$). This finding may suggest that making everyday food choices according to the Dietary Guidelines, in contrast to smoking and weight, is really not very difficult to do. On the other hand, the result could also be due to the way the questions were framed: the respondents were asked if they felt confident they could eat “more of” and “less of” certain food categories, behaviours with no specific end-points and thus perceived as easy to do. Finally, the result could be because the variance in the data was less than for some of the other scales.

vi) *Exemplification*

The writer gives an example to support the explanation.

Another barrier to validity of our data is of cultural nature. Immigrant groups such as Montrealers of Haitian origin include a disproportionate number of people who are illiterate or who have very little schooling.

vii) *Reference to previous research (comparison)*

The writer compares the results with those reported in the literature..

Recent data from the National Centre for Health Statistics (NCHS, 1996) indicate that 36% of men and 54% of women have never smoked cigarettes, 31% and 18% respectively are former smokers, and 32% and 28% respectively are current smokers. Among persons 65 years of age or older, 50%, 34% and 16% are never, former and current smokers, respectively. Our data indicate that elderly Iowans (especially women) were substantially less likely to have ever smoked than the NCHS samples.

viii) *Reference to previous research (support)*

The writer quotes previous work to support the deduction or hypothesis of the research.

The higher levels of depressive symptoms typically found among current smokers is consistent with recent reports of clinical depression in heavy smokers (Apa, 1998) and higher smoking prevalences in patients with depression (Thompson, 1997) and adults with histories of depressive symptoms during adolescence (Jorgensen, 1998).

ix) *Deduction*

The writer makes a claim about the generalisability of the particular results.

This finding suggests that nutrition education could emphasise perceived vulnerability, perhaps not by using general threat inducing messages, but by using health risk appraisal instruments or other strategies by which individuals come to recognise their own personal and specific health risks, based on their medical and dietary behaviours.

x) *Hypothesis*

The writer makes a more general claim arising from the experimental results.

The results of this study seemed to indicate that HBV infection can be a common cause of acute hepatitis in adults.

xi) *Recommendation*

The writer makes suggestion for future work.

Further studies should be done to identify the salient influencing factors in other populations.

xii) *Justification of recommendation*

The writer justifies the need for the future work recommended.

An awareness that certain driver groups, such as convicted impaired drivers and drivers with high accident and demerit point frequency, contain a disproportionate number of seat belt nonusers may be useful to licensing agencies operating driver improvement systems. Clearly more research is required to determine what educational approaches are most likely to be successful with the seat belt non-users before embarking on any costly large-scale program targeted at this group.

In a thesis this common cycle could be repeated a number of times. One thing for a supervisor to look for when s/he is advising a student is whether there is the direct relation of research objective to statement of result to comments on the result in the discussion.

Assisting students to publish

Activity 38

There are a number of advantages and disadvantages in encouraging and assisting students to publish during their candidature. Some are listed. See if you can extend the list.

Helps to conceptually integrate research, thesis and publication	Writing articles can become diversionary with student getting side-tracked
Provides external quality control for both supervisor and student	Can absorb a great deal of energy
Provides access to expertise and feedback	Articles could become disparate and hard to relate back to main theme
Enables checking of literature review and testing of emerging theoretical analysis	
Increases likelihood of positive examiners' reports since publishability is already proven	

Activity 39

Do you as a supervisor encourage and assist your students to publish for journals and conferences? If so, how do you do this? Look at the questions below and see if you can answer them. The compare your answers with the sample answers below

When should a paper be prepared?	
How should a paper be prepared?	
Should conference papers be prepared and who should present them?	
Should the thesis be prepared from the written papers?	
Should the supervisor always be co-author?	
If revisions or amendments to the paper are required after review the supervisor should always take responsibility for this?	

Here are some possible answers to the questions above:

When should a paper be prepared?

Immediately on completion of each phase of the research work unless the results of one phase await results from another

How should a paper be prepared?

Paper should be written by the student using guidelines or advice from the supervisor

Should conference papers be prepared and who should present them?

Material not ready for a journal paper can be presented as a conference paper. It should be presented by the student to gain experience at public presentations

Should the thesis be prepared from the written papers?

The thesis should as far as possible be developed using the papers as chapters. An introduction and conclusions that ties all the papers together need to be written.

Should the supervisor always be co-author?

Yes, unless the student specifically insists on the paper being their own work

If revisions or amendments to the paper are required after review the supervisor should always take responsibility for this?

If the supervisor is co-author, then the supervisor needs to take equal responsibility

Material from Gregory, J. Hancock 'Assisting Postgraduate Research Students towards Publication', University of Sydney, Centre for Teaching and Learning

Some useful reading on writing

Brown R (1994) The 'big picture' about managing writing. Chapter 8 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education*. Kogan Page, London

Bruce C (1994) Supervising literature reviews. Chapter 12 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education*. Kogan Page, London

Bruce C (1996) From neophyte to expert: counting on reflection to facilitate complex conceptions of the literature review. Chapter 15 in Zuber-Skerritt O (ed) *Frameworks for Postgraduate Education* Southern Cross University, Lismore

Bruce CS & GH Brameld (1999) Encouraging student-directed research and critical thinking in NESB students. Chapter 14 in Ryan Y & O Zuber-Skerritt (eds) *Supervising Postgraduates from Non-English Speaking Backgrounds* The Society for Research into Higher Education, Buckingham.

Gottlieb N (1994) Supervising the writing of a thesis. Chapter 9 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education*. Kogan Page, London

Knight N (1996) Theory and discourse in research: Implications for supervision of research students in the social sciences. Chapter 9 in Zuber-Skerritt O (ed) *Frameworks for postgraduate education*. Southern Cross University, Lismore.

Nightingale P (1992) Initiation into research through writing. Chapter 10 in Zuber-Skerritt (ed) *Starting Research – Supervision and Training*, The Tertiary Education Institute, University of Queensland.

Zuber-Skerritt O and N Knight (1992) Problem definition and thesis writing - workshops for the postgraduate student. Chapter 12 in Zuber-Skerritt O (ed) *Starting Research - Supervision and Training*, The Tertiary Education Institute, University of Queensland.

GETTING THE RELATIONSHIP RIGHT

Objectives

- To define your idea of what constitutes an appropriate supervisory relationship;
- To explore the power relationships embedded in the supervisory relationship and how these affect you and your students;
- To consider the effect of gender on the supervision relationship;
- To explore ethical issues in doing research as they relate to your supervision practice;

Content

- Boundaries
- Power
- Gender
- Research ethics

Resources

Activity 40

Consider the following questions:

	Yes	No
Would you go to the pub with your student?		
Would you employ your student as a baby-sitter?		
Would you give your student your home phone number?		
What about your mobile phone number?		
Would you take your student to the movies?		
Would you invite your student home for dinner with your family?		
What about a weekend barbeque with other students and colleagues?		
Would you invite your dinner out for dinner at a restaurant alone?		
When you greet your student, would you hug him/her?		
What about a social kiss on the cheek?		
Do you allow your student free access to you whenever you are in your office?		
Do you require them to make an appointment?		
Would you ask your student to house- and/or pet-sit?		

Do you have similar boundaries with all your students or are there differences among students? How do you decide on boundaries with your students? Are your boundaries flexible, based on compatibility or some other criterion, or do you have a set of guidelines for relationships with students from which you never waver? Can you articulate your views on professional and personal relationships with your students?

Aligning student needs and supervisor style

Activity 41

Place an X on the chart to show how you currently perceive your student's status – from dependent to autonomous – and your recent supervisory style. Ask your student to do the same and discuss the outcomes. What do they indicate about your supervision style? Does this vary between students?

Student's status

Competently autonomous

Dependent

Hands-on

Hands-off

Supervisor's recent style

Issues of differential power

Activity 42

Some students may feel uncomfortable expressing disagreement, voicing their own opinions or asking for help from their supervisors in situations where the power differential is great.

What do you do to assist them?

No matter how egalitarian you feel as a supervisor, the relationship between you and your student, at least initially, has a very steep power differential. You as supervisor have an advantage because

- You know the discipline better than the student;
- You have less at stake than the student;
- You know how getting a degree at RMIT works
- You are an established researcher with publications, understanding of what research is about, how to do research and a social and professional network of other researchers;
- You assess the student's progress report and make recommendations on continuation;
- You have the ability to introduce them to social and professional networks that will be invaluable for their careers.

In addition, you may belong to a different social, cultural, racial or linguistic group from your student, and this also has a bearing on the hierarchical relationship between you.

Wisker (2000) refers to *discourses of power* arguing that:

- Supervisors have positions of authority within the university context –they can guide or prevent the student's development
- They have a position as one who 'won' the discourse of postgraduate study by succeeding in the system and thus having 'mastery' of the language and processes
- In the case of international students, the supervisor's mastery of the cultural context in which the research degree is located

Power relationships between student and supervisor are often complicated by the student's role outside the university. More and more students are returning to university having already established a career in industry or government. Your student may earn more money than you do, might be older than you are, might have more status in their organisation than you do. These issues are far from trivial. How does a supervisor negotiate these tricky grounds? There are no answers to this question, but mutual respect and well-oiled communication will go a long way to easing the tension.

The supervisory relationship is often characterised by the use of metaphors, such as the following:

- Expert-novice
- Director-follower
- Guide-traveller
- Master-apprentice
- Trainer-trainee
- Experienced-naïve
- Guru-disciple

It's doubtful whether these metaphors are really helpful. The characterisations they project reinforce the power of the supervisor and the subordinate status of the student.

Activity 43

Have you ever had conflicts with your students that could have been a result of power struggles? List what these conflicts were about and whether you were able to resolve them

Power struggles	Nature of conflict	Resolution?

Activity 44

The case study below explores how 2 NESB women students construct their relations with their supervisors on the basis of how they think their supervisors perceive them. Read the case study and consider the questions below.

How does the unequal power relationship impact upon communication and expectations?	
Does gender and ethnicity play any part?	
Would you say that the supervision practices in these cases were problematic?	
If so, how?	
Write down some points as to how the supervisory relationship might have been better conducted	

Case study: “They treat us like their daughters”

Deli is a single woman from Pakistan aged 25 enrolled in a Science faculty and is pursuing a PhD in an area where she had previously gained international recognition through the completion of a Masters program. She arrived in Australia after rejecting offers in the UK and USA, having won a scholarship to complete research in her area of expertise. She has spent the last 5 years teaching in a Science faculty in a large overseas university. Deli was appointed a supervisor, Dr X, who required of her a change of topic and the development of a research project outside her professional expertise. Potentially this could have been a poor supervisory relationship but Deli decided to comply with the situation despite much hardship and frustration.

Similarly Mi Ra a student from China is supervised by Prof. Y. She too worked in the same faculty and experienced unsatisfactory supervision yet she too was prepared to accept this rather than confront the problem. She has published a number of papers in recognised journals. She has been working as a research assistant and got on well with the rest of the staff in the faculty.

Both Mi Ra and Deli shared the view that ‘it is very important to get on with the supervisor’. It was their belief that without this harmony complications would arise causing tensions between the supervisor and the student and consequently threatening completion. What resulted and was recognised by both women was a relationship with their supervisors that resembled a father-daughter relationship.

In the beginning the supervisor is interested in your project – like a parent helping a child with homework. Eventually the student grows and gets to know more than the supervisor and he lets you go a little – like in adolescence – and you work alone. The supervisor then feels that he cannot do more and so you do not see him much and you feel like a young girl asking silly questions.

When I feel like a little girl – it depends on the commands he gives me if I feel like this – but when he does I do not like to say so. Rather I just listen quietly to his commands. If I think it is ridiculous I will be unhappy. I will say to him I will do something but eventually I will not do it. He usually forgets to check anyway.

The reference to the presence of a father-daughter relationship came early in the candidature for Deli. She says:

It is like I am working with my father. He is 50 years old, he wants me to call him by his first name. I just cannot do that as I would if he were more my age

As the candidature unfolded Deli confirmed that unlike her he was comfortable working within this relationship, suggesting that she think of him as her father. While Deli acknowledged the sincerity of his offer, she argued that as she moved towards the completion of her candidature, she felt that such a relationship trivialised her as a professional colleague and kept her firmly in her place as student/ daughter.

Just yesterday he rang me and said “Where are you? Are you disappearing?” He is upset because I have not seen him this week. Does he come to see me like the other supervisors? No! I have always been expected to run to him. 2 days I don’t see him and he is upset. Maybe I know more than him and do not want to see him. But still he likes to see me each week. It is like he is checking up on me all the time still.

Referring to an earlier period of her candidature Mi Ra described her relationship with Prof. Y in the following way:

You feel relaxed with him and even if you ask some stupid question he won’t laugh at you. He treats you like a friend and most of the time like a father to a daughter.

Issues such as desirable distance between supervisor and student, the place of deference in the relationship and rules of protocol between a teacher and a learner do reflect many of the qualities of a father-daughter relationship when considering the context of learning in Asian countries. So it is not surprising that this type of relationship emerged early in the candidature. However as the 3 years drew to a close Mi Ra she felt that his image as a father had become more remote. By the end of the 3rd year she expressed the concern that she had lost respect for her supervisor who seemed to be losing interest in her work. In the late stages of her enrolment the father-daughter relationship was characterised by ‘disinterest’ and other feelings that she felt unsure how to describe. Specifically Mi Ra believed his disinterest was in response to her decreasing dependence on him. She was particularly offended by the lack of contact in her final year:

The first 2 years were just fine but this year he just keeps asking me why I haven’t been to see him, why I haven’t finished and all that and he stopped meeting me. I just don’t know.

Mi Ra like Deli was offended by a man who proclaimed such commitment earlier yet later was perceived as 'deserting us when we need him most'. They rationalised that it was their increased expertise in the field and the resultant lack of dependence on their supervisors that resulted in the changing relationship:

Because we know more than our supervisors they no longer want to know their daughters – they have forgotten us.

The continuing dilemma for both Mi Ra and Deli was whether to confront this distancing from their supervisors at the time when they needed most support. In the end they did not do so.

Case study from Izabel Soliman 'Postgraduate Supervision', Teaching and Learning Centre, University of New England, 1999.

Activity 45

<p>Make a list of your students, their enrolment mode, their gender and their competing responsibilities eg family, work, research. What implications do these competing responsibilities have on each student's ability to progress in their degree in a timely manner?</p>
--

<p>Is there a difference between students enrolled full-time and those enrolled part-time?</p>
--

<p>Is there a difference between the genders?</p>

<p>If so, what can you do to assist?</p>
--

Student	Enrolment mode	Gender	Responsibilities	Implications

Research shows that female research students:

- Have less time with their supervisors than do males
- Need more, but receive less, encouragement than do males
- Express greater dissatisfaction with their supervision than do males
- Are more likely than men to demand perfection of themselves and hence delay or fail to complete
- Are less likely than male students to consider their academic environment as friendly and supportive

- Are more likely to have periods of suspension and more transfers between full-time and part-time than do males
- Are more likely to lack gender-appropriate role models than are male students
- Are uncomfortable with issues of power and sexuality that they feel are associated with their supervision relationships
- Report a sense of isolation, particularly in fields where men predominate
- Are more influenced by the behaviour of the person instructing them than are male students.

(Moses 1990; Conrad 1992; Conrad & Phillips 1996)

Men and women have different communication styles. The stereotype is that men's communication is characterised by competition, a focus on hierarchy, communication of information and facts rather than feelings, abrupt changes in topic, confrontational style with strongly expressed opinions and the use of silence as self-defence. In contrast, the stereotypical female communication style is characterised by cooperation, lateral organisation, concern for harmony, self-disclosure, self-deprecatory humour, gentle shifts of topic that acknowledge previous speakers, taking turns in speaking and using silence to allow others to speak (Deakins 1992, cited in Conrad and Phillips 1996)

Activity 46

If indeed women and men have different communication styles, and that women need more personal encouragement than men, that women are sensitive to perceptions of male dominance in a disciplinary field, what can you do to make your female students' experience of postgraduate research an enjoyable and successful one? Make a list
--

What can you do to make experience enjoyable?	What can you do to make experience successful?

Activity 47

Moses (1990), in a report to the Department of Employment, Education and Training on the barriers to women in postgraduate degrees, claims that some disciplines are characterised by "male definitions of knowledge, male research conventions, male career patterns, male interaction patterns". Is this true of the discipline you belong to? What evidence do you have for your view? How do you think this affects your female students?

	Is this true of your discipline?	Give an example	Affect on female students?
Male definitions of knowledge			
Male research conventions			
Male career patterns			
Male interaction patterns			

Ethical practice

Ethical research practice involves:

- Professional standards and behaviour
- Awareness of issues relating to the rights of other researchers, of research subjects, and of others who may be affected by the research, e.g. confidentiality, ethical issues, attribution, copyright, malpractice, ownership of data
- Particular ways of conducting research
- Appreciation of good research practice in discipline, understanding of relevant health and safety issues, and responsible working practices

Activity 48

What ethical dilemmas have you come across in your own research and your supervision practice? How have you solved them?

Ethical dilemmas	Resolution

Some useful reading on supervision, gender and equity

Bartlett Alison and Mercer Gina, (1999) Cooking up a feast: Finding metaphors for feminist postgraduate Supervisions, Australian Feminist Studies, Vol. 14, No. 30.

Bartlett A & Mercer G (eds) (2000). Postgraduate Research Supervision: Transforming (R)elations. Peter Lang Publishers.

Conrad L (1994). Gender and Postgraduate Supervision. In Zuber-Skerritt O & Ryan Y (eds), Quality in Postgraduate Education, Kogan Page, London. 51-58.

Deem R & Brehony K (2000). Doctoral Students, Access to Research Cultures - are some more unequal than others?, Studies in Higher Education, 25 (2) 149-65.

Grant B & A Graham (1994) 'Guidelines for Discussion': a tool for managing postgraduate supervision. Chapter 14 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education* Kogan Page, London

Hammick M & Acker S (1998). Undergraduate research supervision: a gender analysis, Studies in Higher Education, 23 (3) 335-47.

Data from interviews 'reveal contrasting ways of working and some gendered differences in the way the supervisors used language to describe and discuss their practice of supervision. The study raises questions about the way in which gender may impact upon the supervision of research through its influence on the knowledge flow and power dynamics between student and supervisor' (from abstract).

Heinrich K (2000). The passionate scholar: a mid-life, woman doctoral student's quest for voice, Qualitative Studies in Education 13 (1) 63-83.

The feminist, esthetic, cooperative inquiry described in this article is the first longitudinal study to trace the development of scholarly identity in a group of mid-life women participants during their doctoral years. This 18-month project involved an experiential workshop and four reunions shaped around the metaphor of the hero's journey grounded in feminist pedagogy and expressive methods. Entering doctoral programs with voices made tenuous by life events characteristic of mid-life, participants' scholarly development was intimately linked with their recovery of personal voice and the development of an authentic sense of self. Expressive methods as well as group support were integral to participants developing a scholarly identity that manifested itself in passionate dissertation scholarship. This suggests that participants' scholarly identity development transcended the intellectual and involved psychological, emotional, and spiritual dimensions. Based on these findings, doctoral educators are encouraged to create experiences that offer mid-life women opportunities to reflect on their doctoral journeys within a community of scholarly caring through the creative mediums of metaphor; aesthetic, expressive representation; and dialogue.

Heinrich K (1995). Doctoral advisement relationships between women: on friendship and betrayal, *Journal of Higher Education*, 66 (4) 447-69.

Heinrich K (1991). Loving partnerships: dealing with sexual attraction and power in doctoral advisement relationships, *Journal of Higher Education*, 62, 514-38.

Johnston S (1999) Postgraduate supervision in education: an overview of the literature. in Holbrook S & S Johnston (eds) *Supervision of postgraduate research in education*. Australian Association for Research in Education, Coldstream, Vic.

Johnson L, Lee A & Green B (2000). The PhD and the Autonomous Self: gender, rationality and postgraduate pedagogy, *Studies in Higher Education*, 25 (2) 135-47.

Moses I (1990). *Barriers to Women's Participation as Postgraduate Students*. Australian Government Publishing Service, Canberra.

Neumark D & Gardecki R (1998). Women helping women? Role model and mentoring effects on female PhD students in Economics, *Journal of Human Resources* 33 (1) 220-46.

Analysis of data from 55 US PhD-granting economics departments showed almost no support for the hypothesis that female graduates' initial job placements are improved by the presence of women faculty or dissertation advisors. Female faculty did reduce female students' time spent in graduate school.

Lee Deborah, (1998) Sexual harassment in PhD Supervision, *Gender & Education*, Sept, Vol.10, Issue 3, p299, 14p.

Smeby J-C. (2000). Same-gender relationships in graduate supervision, *Higher Education*, 40 (1) 53-67.

Thomas K (1990). *Gender and Subject in Higher Education*. SRHE and Open University Press, Milton Keynes.

Explores the arts/science divide, the experience of being a woman in a 'man's' subject (physics) and a man in a 'woman's' subject (English).

GETTING YOUR STUDENTS MOTIVATED

Objectives

- To consider strategies that will enhance your students' motivation;
- To understand the blocks to progression;
- To help your students combat procrastination.

Content

- What is motivation?
- Motivating factors
- Diagnosing problems with progress
- Procrastination

Resources

Motivation is goal-directed behaviour. It's easy to recognise but not so easy to work out why people are motivated. People are motivated by different things. For some, it's power and money that turn them on. For others it's flexibility or a social workplace.

Activity 49

<p>What motivates you? Why are you an academic? What is it that you love about research? What sustains you when you come up against an obstacle in your work? How do you communicate that passion to your students?</p>

What motivates you?	
Why are you an academic?	
What is it that you love about research?	
What sustains you?	
How do you communicate that passion to your students?	

Motivation arises out of desire for an end, belief in the ability to achieve that end, a clear idea of the pathway and milestones to get there, a positive attitude and effort. The lower the perceived probability of reaching a goal, the higher the level

of anxiety. Self-confidence, a positive attitude and good stress management tools are critical to students.

It is often said that you cannot motivate another person, that motivation is an intrinsic quality. However, there are some things you as a supervisor can do to create an environment in which a student can motivate themselves.

Activity 50

There are many factors (eg power, money) that motivate people. Write down what you do to motivate your students. Now find out from each of your students five things that motivate them. Are they similar lists? List ways you can modify your supervision of each student to accommodate more of the factors that motivate them.

Student	Motivating factors	Implications for supervision

Some factors that might motivate students includes:

Appreciation

- Give positive feedback to your student as well as criticising their work
- Show pride in your student (eg tell others about their work and their achievements)
- Celebrate your students' successes (publications, prizes, scholarships, conference presentations)

Involvement

- Involve your students in your research group
- Discuss your research with your students as valued colleagues

Social environment

- Establish a discussion group or seminar series with your students
- Hold informal social gatherings with your students and colleagues
- Form a sports or games team and challenge other research groups

Concern

- Show concern for your students' welfare. This need not be intrusive and will help you to identify any psychological blocks of interference from other responsibilities that may impede progress on the thesis

Working environment

- Make sure your students have an adequate workspace and resources.
- Flexibility in work hours may be very important to students who work, have a disability or who have families. This means that you may also need to be flexible to accommodate their needs.

Respect

- Seek out and demonstrate that you value your students' opinions. This will boost their self-esteem as researchers and will create a collegial atmosphere.
- Treat your students with respect as individuals. Be fair and honest with everyone.
- Listen to your students

Clarity

- Make sure both you and your student are clear on what is expected of both of you
- Ensure the student has clear goals and a clear idea of the strategies to achieve them

Lack of progress

All research students go through periods of the blues when they are discouraged, stressed and unproductive. These periods are not necessarily the end of the world, but they can be more serious if they go on for too long.

Activity 51

Have you ever had a student who was not making good progress? List the behaviours you used to diagnose a problem with progress. What did you do about it? Are there any other ways you can think of to diagnose and/or intervene when a student is in trouble?

Diagnostic behaviours	Possible interventions

Things that might indicate a serious problem with procrastination or stress include:

- Skin problems
- Allergies
- Frequent illness
- Loss of weight
- Obsessive re-writing
- Avoidance of supervisor/s

- Missing meetings
- Unexplained absences
- Inability to complete tasks
- Irritability
- Nail biting
- Increased smoking, coffee consumption, substance abuse
- Inability to deal calmly with everyday tasks and situations
- Tearfulness
- Applications for conversion to part-time or leave of absence
- Failing to meet deadlines

There is a large body of literature on procrastination and its causes (for example, see the bibliography at the [Procrastination Research Group](#) website). Research in USA suggests that up to 25% of all students experience problems with procrastination (Johnson et al. 2000). Causes include:

- Poor time management skills
- Inability to concentrate
- Fear of failure
- Fear of success
- Evaluation anxiety
- Negative self-concept
- Perfectionism
- Boredom
- Personal problems (eg family difficulties, financial problems)
- Perceived irrelevance of tasks
- Uncertainty about goals, tasks
- Lack of knowledge or skills to perform tasks
- Anxiety over other people's expectations
- All-or-nothing thinking (one setback is equivalent to a total failure)
- Task is too large and overwhelming
- Conflict

There are some causes of problems with procrastination and stress that require the help of a trained counsellor. For example, if your student is depressed or dealing with extreme stress or trauma, it is probably more appropriate for you to encourage them to see a counsellor. What you can help with is:

- Setting achievable goals
- Ensuring that the student understands the relevance of what they are doing
- Helping make plans and set priorities
- Disputing negative self talk
- Providing encouragement and a supportive environment for the student to air their difficulties
- Suggesting strategies to combat paralysis
- Giving constructive feedback

Some strategies to avoid procrastination you could suggest to your students:

- Establish a routine
- Remove distractions
- Make sure your desk is orderly, has adequate lighting and is free from distractions
- Accept that there is no magical cure for procrastination - just do it!
- Break large tasks into small ones
- Use behavioural suggestions (eg put the text on multiple regression in plain view)
- Agree to sit down and work on the dreaded task for 10 minutes, then decide whether or not to continue
- Make a contract with a buddy
- Reward yourself only after you have finished the task
- Take breaks
- Prioritise work and set deadlines
- Identify your own strengths
- Review your progress and achievements
- When you get going, keep going
- Manage your stress (diet, exercise, relaxation)

What a research student says about getting motivated

<http://www.geocities.com/writethesis/>

Don't get distracted. Keep starting. That's all.

Make it easy for yourself. Reduce distraction. Plan ahead. Clear your mind of negative thoughts.

1. Make the task more pleasant. Just focus on starting. Start by breaking down the task into easy certain steps. Starting is the most difficult step. Start with something easy until you get into a groove. Focusing on the task makes it more enjoyable. Try to do a decent job first and then improve on it. If you are writing, separate writing from editing. Write uncritically first and then edit as much as you want later. For most people, writing occurs in such a step-by-step process of first organizing ideas and outlining, then writing and then editing. Often, motivation increases and inspiration comes AFTER you start this process. Clear your mind of high expectations about how you must manage time. Just focus on spending 5 minutes on the task. Imagine the worst possible consequences from doing absolutely nothing, then accept them as a tolerable potential scenario and feel free to do better. Be positive about the rewards of doing better. Be sure to write down a list of all the good qualities your completed work will have and all the rewards your completed work will bring.

Occasionally, read the list to boost motivation. Five thoughts that help me stay on track are, ‘There is nothing else to do’, ‘do a decent job first and have fun improving it’, ‘just work for 5 minutes’, ‘after you break it down, every little step is easy’, and ‘doing nothing is okay, but what happens if I work on the most important task?’ Also, ‘I feel like finishing everything in the next 30 minutes’ is one that’s incredibly effective if you can take it as a completely optional challenge to exceed everybody’s expectations and get yourself into that very intensely focused mode. Basically, set your expectation of how you should manage time low, but try to exceed the expectation, a little while at a time. Focus on small blocks of time. Don’t engage in addictive activities such as computer games during breaks. Don’t think too much beyond the next 5 minutes unless you are planning.

2. Reduce distraction. Go to the best place to do the task. A place where everyone else is doing something more unpleasant (e.g. a DMV line in which you are the only one who’s brought a book to read and all others are doing nothing) can motivate you to do something that’s otherwise unpleasant. Often the best place you can find is where everyone else is doing the same thing as you, such as the library. Working alone in an isolated, distraction-free environment is also a good option. The most difficult place to do a relatively unpleasant task is where something much more fun (e.g. TV and internet) is readily available and you are alone. Avoid such places if possible even for a short period of study. For a very unpleasant task, the only solution is to go to a place where the only options available are either to do the task or to do nothing.

3. Plan ahead. Spend 5 minutes each day to make a to-do list and a schedule. Plan where you will be and what you will spend time on. Set priorities so that you will know at every moment what the most important activity is. People are impulsive and irrational in spontaneous decision-making. It is easier to make a rational plan and stick to it. As Lakein put it, “Failing to plan is planning to fail.” Schedule times for sleep and events with set times. Plan to spend a certain number of 30-minute blocks of time just on the most important to-do-list items during the unscheduled period. Leave time for spontaneous fun activities at the end of the day. Planning time is decision time. As Lakein stated, “Planning is bringing the future into the present so that you can do something about it now.” Planning allows one to make rational decisions in advance so that one can focus on doing the important activities instead of losing time to indecisions and distracting activities. Time spent

on planning increases the amount of time well spent. Make sure to decide to spend time on the most important activities. Often, distracting activities are worthwhile, just not as worthwhile as what you must do first. Some distracting activities are truly worthless as they only cause disappointments when more important goals are unmet. For most people, doing whatever one feels like doing spontaneously leads one to make too many regrettable decisions. Some tasks must be planned ahead and carried out despite the tasks being unpleasant. Progress on important and often difficult long-range activities leaves time for guiltless enjoyment of fun activities. When making spontaneous decisions, consider deliberately how you would look back at the decisions when you go to bed that night. If you can't follow the plan, make a new one so that you can spend the rest of the day more wisely.

4. Serenity now. Not insanity later. Try the one-minute meditation. I find this to be the best trick of them all. If you get distracted and can't get started, try thinking of nothing for a while. Clear your mind of any conscious thought. No worries. No distractions. See if you can get started on the task immediately afterwards. Repeat as often as you need to. Create an ideal work environment first from within. Achieve a quiet relaxed determination, devoid of counterfactual comparisons (what else could I be doing?). Think that the only available options are either to do the task or do nothing. Choose to do nothing instead of some distracting activity. Then, soon you will likely find yourself going back to do the task you really must do. Don't overestimate the importance of distracting activities. Attempting to compensate for distracted efforts by working longer hours is inefficient. The key to serene focused effort is totally giving up any distracting activity as an option. Relax. Don't worry. Just focus on spending the next 5 minutes on the task.

5. Develop good habits. Good habits allow easy efficiency far away from deadlines. Stay on a regular work schedule if possible. Eat healthy. Exercise. Don't waste too much time on vicarious winning such as rooting for sports franchises or celebrities. Stay on a regular sleep schedule. Sleep is important for motivation and concentration.

Some major causes for procrastination are irrational spontaneous decisions, doubts of rewards and fear of imperfection. Planning ahead, giving up any distracting activity as an option, thinking positively about rewards and just focusing on spending small chunks of time on important tasks without having too high expectations about

yourself help address these problems. Just enjoy doing the best you can.

References

The emphasis on planning and setting priorities and goals are from *How to Get Control of Your Time and Your Life* by Alan Lakein. The emphasis on starting, working in 30-minute blocks of time and not scheduling specific times for important tasks, are from *the Now Habit* by Neil A. Fiore. These two books are short and useful classics. Having high hopes and reasonable expectations is from *The Shortest Distance Between You and a Published Book* by Susan Page, a useful resource if you want to author a published book.

Are you procrastinating right now?

Yes No

Get some work done before you do fun things.

Activity 52

Ask your student to complete the following checklist and discuss the outcomes paying particular attention to the student's suggested strategies

8 problems you can beat	Possible ways forward	Your strategy
Lack of motivation	<ul style="list-style-type: none"> • Set yourself short-term tasks • Identify what motivates you 	
Lack of self-confidence	<ul style="list-style-type: none"> • Seek positive feedback • Try new things out • Stretch yourself 	
Poor time management	<ul style="list-style-type: none"> • Work out your major time stealers • Give yourself realistic timelines • Prioritise 	
No focus or direction	<ul style="list-style-type: none"> • Increase your self-awareness 	
Limited support	<ul style="list-style-type: none"> • Build your own support network • Get a mentor 	
Comfort zone	<ul style="list-style-type: none"> • Recognise it • Set goals • Take on new responsibilities 	
Fear of failure	<ul style="list-style-type: none"> • Try and learn from your failures • Try not to take criticism personally 	
Lack of relevant experience	<ul style="list-style-type: none"> • Identify where your gaps are • Apply what skills you have in other contexts • Seize opportunities 	

CROSS-CULTURAL SUPERVISION

Objectives

- To explore your own cultural background and that of your students;
- To identified the issues faced by your NESB students and what you can do to assist them;
- To investigate your and your students' learning styles and consider the challenges any differences pose;

Content

- Cultural beliefs
- NESB students' issues
- Learning philosophies
- The role of the supervisor

Resources

We live in an increasingly multi-cultural society and a world where travel and communication have enabled us to move, mix, communicate with each other and even live and work in each others' countries...However this ease of travel and technology sometimes mask the continuing difficulties we experience when learning to live and work and study within a cultural context which differs from our own. If international students are really to benefit from studying in cultural contexts other than their own, and if the universities which host and work with them are to benefit themselves from their presence and genuinely enable them to successful in their research enterprise, we need to share good practice to facilitate real life interaction and beneficial exchange.....

Gina Wisker Cross-Cultural Research Supervision and Research at a Distance: Issues for Postgraduate Supervisors and Students, In M.Kiley & G.Mullins (2000) *Quality in Postgraduate Research: Making Ends Meet*, ACUE, University of Adelaide

Activity 53

Consider your own cultural beliefs:

- How do you greet people? Do you shake hands? Kiss? Hug? Rub noses? Smile broadly? Shout out an informal 'G'day!?' Bow? Namaste?
- Do you nod or shake your head to say yes?
- How close do you stand to people when you're talking with them?
- Is giving a gift to a senior official in the University bribery or a token of appreciation?
- Do you open gifts in front of the giver or do you put them aside for later?
- Do you look people in the eye when you talk to them?
- Do you say you don't understand or would that involve too great a loss of face for you or the person who is talking to you?
- Do you call people by their first name or by their titles?
- What constitutes acceptable touching in a social context?
- Do you point out errors of fact in conversations with your students? colleagues? Head of School?
- How do you elicit comment from someone?
- Do you interrupt people when they are talking?

These are all questions that may have different answers in different cultures. Wisker (2000a) warns against a phenomenon she calls 'academic imperialism', in which academics in a host university assume, often unconsciously, cultural and academic superiority over students from different racial and cultural backgrounds. She argues for self-awareness and a healthy curiosity about others' backgrounds as a way of avoiding academic imperialism.

Activity 54

The literature suggests that the role of the supervisor in supervising students of different cultural or linguistic backgrounds is different from their role in supervising domestic students. What do you think? Make a list of how your supervision practice differs between students of your own cultural background and those of other cultures?

Cultural background	Supervision practice
Own cultural background	
Other cultures	

Activity 55

Prepare a cultural audit of all your research students. Where do your students come from? What languages do they speak? What are their expectations of the supervisory relationship? How do they expect you to behave, and how do they expect to behave themselves? Who are their role models?

What do you think are your culturally diverse students' main problems? How do you know? What do your students think are their main problems? Ask them.

Name	Degree	Country of Origin	Languages	Role Models

- Time pressures, imposed externally by the Iranian Scholarship Board and internally by students' slowness in processing the English language, were an extreme hindrance.
- Language inadequacy frustrated students in their ability to express themselves, respond to queries or challenges and participate in discussions and therefore learn. These frustrations caused anxiety, which further hindered learning.
- Thinking styles that were slow to question but quick to accept and memorize - particularly accumulated detail - interfered with the kind of analytic thinking supervisors expected.
- Anxiety problems were often exacerbated by family members' illnesses or accidents. Similarly, social, political or religious restrictions and English inadequacies of family members also added to anxiety and stress.
- Support from native English-speaking Australians was limited; student suggested the reasons might be 'cultural', 'religious' and 'social'.
- Support from other Iranians was limited. Difference in discipline or field were cited as reasons.
- Supervisor support was often marred by misperceptions and misunderstandings in the relationship despite extravagant hours and effort spent on grammar and English expression.

Learning styles

Activity 57

How do you learn? Do your students learn in the same way? Was your supervisor the font of all knowledge to you, or was s/he a facilitator for your own self-directed learning? What is your approach to assisting your students to learn? Is it appropriate for all your students?

One of the most difficult areas of supervision of NESB students is that students educated with different learning philosophies often find the most difficult aspect of research study in Australian universities is learning a whole new paradigm of research, teaching and learning (eg Aspland 1999; Denicolo & Pope 1999; Knight 1999; Wisker 2000b). Supporting students through this intellectual culture shock is an important part of the first six months of research study. Sillitoe and Crosling (1999) outline some fascinating differences in the construction of academic writing in different cultures and suggest the use of concept maps to structure thesis writing. For more on concept maps,.

Another issue that is rarely discussed is that students who learn to think in the linear, Western manner will eventually have to return to their countries and their own culture's way of thinking and expressing ideas (Denicolo & Pope 1999). In a sense, international students must become 'bi-cognitive' as well as bilingual. Supervisors need to be sensitive to a student's needs to produce a piece of work

that not only meets the standards of the host University, but will also be politically acceptable in their country of origin.

Activity 58

Below are a list of reflective questions which you need to engage with if you are supervising international students:

- Have I made my expectations explicit to my student(s)?
- Have I understood the totality of my student(s) and taken into consideration the impact of her/his life-world upon her/his studies?
- Have I taken into consideration the possibility that my student(s) will be going through a process of transition, as she/he negotiates cultural and perhaps disciplinary border crossing?
- Have I taken into consideration the student(s) and my own need to work on interpersonal communication, addressing issues of gender, race and ethnicity?
- Do I have a process of documentation in place whereby actions and progress are recorded?

Some useful reading on supervision and intercultural issues

Ballard B & Clanchy J (1997). Teaching International Students. IDP Education, Canberra.

Becher T (1989). Academic Tribes and Territories: Intellectual enquiry and the cultures of disciplines. SRHE and Open University Press, Milton Keynes.

Research which demonstrates just how different the various academic disciplines are.

Biggs J (1996). Western misperceptions of the Confucian-heritage learning culture. In Watkins D & Biggs J (eds), The Chinese Learner: Cultural, psychological and contextual influences, University of Hong Kong, Faculty of Education, Comparative Education Research Centre (CERC), Hong Kong & Australian Council for Educational Research (ACER), Australia.

Cadman K (1994). Constructing a thesis: a question of identity? Paper presented at Quality in Postgraduate Research conference.

Advisory Centre on University Education, University of Adelaide, Adelaide.

Students from other cultures and language backgrounds need to find their own voices if they are going to meet the expectations of Australian universities. Cadman's illustration of what goes wrong and how to work with a student who is about to become a disaster is illuminating and encouraging.

Cargill M (1998). Cross-cultural postgraduate supervision meetings as intercultural communication. Paper presented at Quality in Postgraduate Research conference, 3rd conference. Advisory Centre on University Education, University of Adelaide, Adelaide.

Using extracts from meetings between international research students and their supervisors, Cargill shows some features which could contribute to the frequently reported perceptions of high levels of deference in these interactions. Some strategies are suggested for both supervisors and students in cross-cultural situations to help minimise miscommunication.

Chalmers D & Volet S (1997). Common misperceptions about students from South East Asia studying in Australia, Higher Education Research and Development, 16, 87-98.

Dunlap L (1990). Language and power: teaching writing to third world graduate students. In Sanyal B (ed), Breaking the Boundaries: A One-World Approach to Planning Education, Plenum Press, New York.

Asks questions about why students find it so hard to write critically; answers apply equally to Third World and First World students she has worked with. Rarely have models of good critical writing. Neutral writing and bureaucratic language are safe. Power structures of many kinds have persuaded students not to take the risk of revealing what they really think in their writing. Also addresses cultural differences in argument styles.

James K (1984). The writing of theses by speakers of English as a foreign language: the results of a case study. In Williams R & Swales J (eds), Common Ground: Shared interests in ESP and communication studies, Pergamon, Oxford.

Case study approach to identifying the problems of non-native speakers who are writing theses. Revealing analysis of role of culture as well as language in creating difficulties.

Kaplan R (1965). Cultural thought patterns in inter-cultural education. In Allen & Campbell (eds), Teaching English as a Second Language, McGraw Hill, New York.

'Logic...is evolved out of a culture; it is not universal.' In their writing non-native speakers may employ rhetoric and sequence of thought which violate expectations of native reader. Advocates teaching contrastive analysis of rhetoric to help foreign students form standards of judgment consistent with the demands made upon them by new education system.

Nash W (ed) (1990). The Writing Scholar: Studies in academic discourse. Sage Publications, Newbury Park.

Essays about what happens, linguistically and psychologically, when academics set out to report facts, explain phenomena, propound hypotheses, argue, persuade and rebut. A critical look at assumptions and principles underlying academic writing, examining in detail the language and 'voice' of the writer, as well as the texture of academic language.

Ninnes P, Aitchison C & Kalos S (1999). Challenges to stereotypes of international students' prior educational experience: undergraduate education in India, Higher Education Research and Development, 18 (3) 323-42.

The discourse concerning teaching and learning for international students in Australia has been dominated by a cultural-deficit approach. Proponents of this perspective argue that many international students bring with them learning experiences which are inadequate in the Australian context. These experiences have favoured rote, reproductive, surface, teacher-centred and dependent approaches to learning; which lack analytical and critical perspectives; and which have occurred in contexts dominated by examinations and substantially lacking in educational resources. More recently, other research has challenged these stereotypes of international students, particularly regarding students from Confucian-heritage cultures. This paper examines these

stereotypes in relation to international students from India, through the use of a review of the available literature on Indian higher education and the analysis of the undergraduate learning experiences of a group of postgraduate students studying at a large Australian metropolitan university. It concludes that while some aspects of the stereotype may apply to Indian undergraduate education, most aspects of the cultural-deficit perspective are problematic in that context, and a more contextualised approach is of greater use in understanding and describing the diversity of undergraduate learning in India.

Parry S (1998). Disciplinary discourse in doctoral theses, *Higher Education*, 36, 273-99.

Many conventions in thesis texts are subtle. They may not be readily identifiable to experienced scholars and yet students are expected to learn and master them. Attention particularly is directed to the overall structure of argument and techniques for coherence; the conventions for citing, acknowledging and making judgements about previous research; and the nature of the technical language of the field. (Abridged abstract.)

Ryan Y & Zuber-Skerritt O (eds) (1999). *Supervising Postgraduates from Non-English Speaking Backgrounds*. Society for Research into Higher Education

Swales JM (1990). *Genre Analysis: English in academic and research settings*. Cambridge University Press, Cambridge.

Looks at how language is used in academic and research settings with specific goal of helping NESB students come to terms with the conventions of academic writing, particularly the research article and its component parts. Explores concepts of 1) discourse community, 2) genre, 3) task.

Volet S & Renshaw P (1996). Chinese students at an Australian university: adaptability and continuity. In Watkins D & Biggs J (eds), *The Chinese Learner: Cultural, psychological and contextual influences*, University of Hong Kong, Faculty of Education, Comparative Education Research Centre (CERC), Hong Kong & Australian Council for Educational Research (ACER), Australia.

PREPARING YOURSELF AND YOUR STUDENT FOR SUBMISSION & EXAMINATION

Objectives

- To define the qualities of a good thesis and your role in its production;
- To consider research done on the examination process and its implications for the selection of examiners
- To understand the examination process in the context of RMIT policies, procedures & regulations

Content

- What is the purpose of a research degree?
- What constitutes a good thesis?
- What are examiners looking for?
- What happens when examiners disagree?

Resources

Purposes of the research degree

There is considerable debate about the exact purpose and nature of a research degree. Views vary from 'making a substantial contribution to knowledge' to 'training in how to do research' (eg Elton et al. 1994; Chipman 1998; Evans 1998).

Activity 59

What do you think? Does the purpose of the degree differ among Research Masters, PhDs or Professional Doctorates?. How do you think differences in views on the purpose of the degree might affect the final thesis and the examiners opinions of it?

Type of research degree	Purpose of the research degree	Affect on thesis or project	Likely examiners' opinions
PhD			
Masters by thesis			
Masters by project			
Prof. Doc.			

A good thesis

Activity 60

List the characteristics you expect in a *good* thesis, taking care that the characteristics are sufficiently general to encompass a variety of formats and approaches, as well as cross-disciplinary differences. Think of the attributes of the worst theses you have ever seen and list those, then list the reverse attributes and summarise them. Compare your answers with the list below

Attributes of the worst theses	Reverse attributes

Sheehan (1994) outlines eight characteristics of a good thesis:

- Quality (*vs* Quantity)
- Succinctness
- Perfect format
- Critical tone
- Sound methodology
- Freedom from errors in statistics
- Meeting objectives
- Impartiality

This list concentrates on technical aspects of the production of a thesis but does not address issues such as *originality* (see Phillips 1994 for some definitions of 'originality'), the significance of the contribution to knowledge, and the independence of the work.

Generally it is expected that a doctoral thesis:

- Should be a substantial piece of original research conducted and reported under proper academic supervision and in a research environment for a prescribed period of time.
- Must make an original and significant contribution to knowledge with an originality of the approach and/or interpretation of findings and, in some cases, the discovery of new knowledge.
- Demonstrate that the candidate has authority in their field with evidence of command of relevant knowledge
- Demonstrate that there is an ability to communicate research findings effectively in the professional arena and in an international context.

Generally it is expected that a Masters degree by research should:





- Show evidence of advanced knowledge in a specialised field
- Show evidence of independent investigation
- Have made critical use made of published work
- Show competence in independent work or experimentation

Research theses are however becoming more creative and innovative. For example, a thesis could be a collection of published papers held together with introduction and discussion chapters.


At RMIT it is also possible to do a professional doctorate research degree. For more information see:

<http://mams.rmit.edu.au/4ukbutqi8mav.pdf>

For information on guidelines for examiners go to the Higher Degrees Unit website where the following documents can be found:

	<u>Guidelines to Examiners of Thesis (pre RTS)</u> http://mams.rmit.edu.au/kzaopks5eioc.pdf
	<u>Guidelines to Examiners of Thesis (RTS)</u> http://mams.rmit.edu.au/dcp6e6weni0d.pdf
	<u>Guidelines to Examiners of Projects (pre RTS)</u> http://mams.rmit.edu.au/z280oqzli36d.pdf
	<u>Guidelines to Examiners of Projects (RTS)</u>

<http://mams.rmit.edu.au/ptybclk4s69d.pdf>

 Guidelines to examiners of professional doctorates (thesis)

<http://mams.rmit.edu.au/am1v4d6bmo5.pdf>

Thesis binding information:

<http://mams.rmit.edu.au/6perecn5irdt.pdf>

Examination criteria

Activity 61

Can you list the characteristics of an examined thesis considered poor? A passable one? An outstanding one?

Poor	Passable	Outstanding

These are the characteristics identified during interviews with experienced examiners:

- *Poor*
 - Lack of coherence
 - Lack of understanding of the theory
 - Lack of confidence
 - Researching the wrong problem
 - Mixed or confused theoretical and methodological perspectives
 - Work that is not original

- Not being able to explain at the end of the thesis what had actually been argued in the thesis
- *Passable*
 - Originality
 - Student autonomy or independence
 - Coherence
 - Well-structured argument
 - Selection of a problem worth investigating and also 'do-able'
 - Substantial (in terms of quantity of work necessary to address the research question)
 - Publishable
 - Self-critical and reflective
- *Outstanding*
 - Elegant
 - Creative
 - Everything fits together
 - Confidence
 - Sophistication

A thesis tends to be judged by the following:

- *Introduction to the study*
 - Clear definition of the purpose
 - Scope appropriate to level of degree
 - Familiarity with relevant literature
 - Ability to critically examine the literature
- *Explanation of methods*
 - Clear description of what was done
 - Adequate justification of method (considers alternatives and explains choices)
 - Demonstration of 'technical' competence
- *Presentation of data*
 - Relevance to stated purpose
 - Clear summary of data
 - Accuracy of data presentation (figures and tables)
 - Verifiability of data
- *Discussion of results*
 - Effective analysis of the subject material
 - Critical examination of the results
 - Logical argument in support of case
 - Systematic and constructive discussion
 - Suggestion of appropriate further work
- *Demonstration of originality, contribution to field*
 - Novel ideas
 - New approach or analysis
 - Valuable data

- *Presentation of the work*
 - Fluency of writing
 - Coherence of content (nothing extraneous, but everything that is necessary)
 - Correct citations of references
 - Correct presentation - spelling, grammar
 - Adequate illustrative material
 - Useful overviews to prepare reader for what follows
 - Useful summaries to remind reader of what has been presented

The examination process

Activity 62

<p>Answer the questions below: When you have given your answers to these questions, have a look at the text below and compare your answers.</p>
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<p>How long does it usually take to examine a thesis? Do you try to do it all in one go? How do you approach the thesis?</p>	
<p>What are your expectations as you begin the task?</p>	
<p>How important are your first impressions of the thesis?</p>	
<p>Are you aware of any particular influences on your judgments? Other examiners' views? Your knowledge of the supervisor, department or institution? Whether some of the work has been published already?</p>	
<p>If most examiners expect a thesis to pass, and indeed very few candidates actually fail, what is the point of the assessment process?</p>	

How long does it usually take to examine a thesis? How is the thesis approached?

Interviewees report spending the equivalent of 3 to 4 full days, often over a period of 2 - 3 weeks, to examine a thesis. They usually try to clear blocks of time and often work at night or over weekends and away from their office. Some read from cover to cover several times, but many read key sections like the abstract, introduction and conclusions first and then the whole thesis. Many check the references before reading the thesis to see what the sources were and whether there are any they will need to look up. Most take detailed notes as they read, but some will do a first reading for an overall impression before attacking the detail and checking to see whether their questions have been addressed.

What are expectations as the task is begun?

Many examiners feel a sense of duty about examining, but they also report that they look forward to the opportunity to engage with new ideas and to read something that is interesting and highly challenging intellectually. Experienced examiners expect the thesis to pass mainly because they realise that it represents three to four years of effort by a talented student supervised by a qualified academic. Examiners are very reluctant to fail a thesis and will spend a great deal of time trying to find enough merit to avoid a failure, or trying to formulate recommendations for revision that will save the thesis. It is believed that experienced supervisors/ examiners are even less likely to recommend a failure than their inexperienced colleagues, in part because they are aware of how difficult it is for a novice researcher to complete this task successfully.

Buckridge reports that the examiners she interviewed often spoke of areas of weakness that the supervisor should have required the student to address (things like the literature backdrop, the conceptual framework, the collection and analysis of data), suggesting that a less than good thesis could be seen as the result of poor supervision. On the other hand, they also noted that the candidate must make a "leap" from an adequate base for the research to an independent and imaginative engagement with it and that may not be something for which the supervisor can be held accountable. You may wish to encourage participants to talk about what they think is the purpose of a PhD. Kiley writes that there are interesting differences in responses depending on what [examiners] thought was the purpose, i.e. either to produce a well researched and well argued, sustained piece of writing called a 'thesis', or to demonstrate that one was capable of being an independent researcher (which might be through well written.... etc, but is also through showing how one would do the research again, where the dead ends were and how one got out of them etc).

How important are first impressions of the thesis?

Interviewees report that their first impressions are very important, not irreversible, but very influential on their frame of mind for the rest of the reading of the thesis. Hence, the literature review is a key section of the thesis, a good indicator of whether the student grasps the problem. Similarly, for those who try to get an overview of the research by scoping the thesis, the Table of Contents, first and last chapters are indicators of whether the student has a "thesis", a clear point to make, a controlling idea.

"Sloppiness" - ranging from typographical errors to mistakes in calculations or referencing - is seen as an indicator that the research itself may be sloppy and that

the results and conclusions might be untrustworthy. They do stress that they are very careful to keep testing their first impressions and that some theses have "been rescued" or "proved to be disappointing after all".

Particular influences on judgments? For example:

- *Documents from the candidate's institution?*
- *Other examiners' views?*
- *Knowledge of the supervisor, department, or institution?*
- *Whether some of the work has been published already?*

- *Documents*

Most examiners write their reports in the form requested by the institution, but only one-third say they take institution-specific criteria into account. Examiners' choosing to apply their own criteria may be a problem if, for instance, an institution explicitly says that examiners are not to fail a thesis on the grounds of choice of research question or methodology. At least one Australian university includes this instruction on the grounds that the work has been reviewed and approved at least twice at departmental level.

- *Examiners' own research paradigms*

You could steer the discussion to the influence of the examiner's own methodological stance. Most experienced examiners say that they can set aside their own research paradigms and see the research from the student's perspective. They also admit that since their own work is well-known, they are unlikely to be sent theses that approach the field from an entirely different paradigm. Kiley reports that it seems to be most important that the student is consistent in her/his approach. It was inconsistency between the approach students said they were going to adopt and what they actually did that upset examiners. However, if examiners are confronted with work which they believe to be completely inappropriate in its approach, what should they do? One examiner of a Masters thesis says that she wrote a report which said, in effect, that she would not fail the thesis since she had to assume that the student's supervisor approved the approach. Since this was a Masters thesis, she believed the student was dependent on the supervisor for guidance on such matters. However, she said that if the student had proceeded against the advice of his supervisor, he should fail. And she also said that if the student were a PhD candidate, she would fail him because awarding the doctorate would mean that he knew for himself what was acceptable in the field. Other examiners say they would refuse to examine such a thesis.

- *Other examiners*

Most would not consult other examiners, they believe it is their job to make an independent judgement.

- *Supervisors/ departments*

Very mixed responses. Many examiners said they were not influenced by who supervised and where the work was done, but then went on to admit that maybe they were. They said things like they worked hard not to be or were aware that they might be influenced but did not think they were in the end.

They expect good work from a well-regarded department so student may be blamed for poor work while good work is credited to the supervisor.

They don't expect much from a low-profile department so good work is seen as evidence of student's exceptional ability while poor work is the result of poor supervision.

- *Publications*

Not common in all disciplines but generally viewed as a positive influence on assessment of the thesis in those areas where students are encouraged to publish during candidacy. Again a mixture of views from favourable to scepticism (eg, re quality of some journals, how much supervisor contributed, and whether the published work was more the product of a 'lab' than the student's own work).

If most examiners expect a thesis to pass, and indeed very few candidates actually fail, what is the point of the assessment process?

Many examiners approach writing the report as a formative exercise: that is, they see their role as giving the student good advice so that the work can be improved before it finally goes to the library shelves, or better yet, is published. The problem is that students usually think of the examination process in terms of passing or failing or getting a grade, that is, a summative process. If they are asked to do revisions (improve the thesis before it goes on the shelf), they think they have been given a low grade at best, if not an outright failure. Indeed, if they do not do the revisions, they don't get the degree, and that is the same result as a failure.

Now to the issue of resubmission for re-examination vs changes to the satisfaction of the department or university. What do these recommendations imply? That the thesis itself is deficient and should not become a public document as it stands? Or that the student has not yet demonstrated her/his potential as an independent researcher? Often there seems to be a mis-match between the recommendation and the report. Experienced examiners see the exercise of writing the report as an 'educational' or 'academic' one where they are writing to a potential colleague. The other 'bit' i.e. ticking a box is something that seems an administrative requirement, and may be done at the last minute and so may seem to bear little relation to the long and detailed discussion in the report. This lack of consistency becomes quite a problem for committees trying to decide on reports when there are different results.

Kiley and Mullins discovered that in the humanities, examiners think of assessing the thesis itself, its success as a document. Hence, they see little point in having an oral examination to clarify ambiguities in the text. On the other hand, in maths/engineering, science and social science, examiners tended to think of assessing the capacity of the student to do research in the future. So they would welcome the chance to confirm the student's potential through oral examination or discussion when the thesis may not have been totally successful.

Many examiners engage in exercises in "compensation". They start with the expectation that a thesis will pass, but they also have high expectations of the quality of the work - originality, substantial contribution to the field, etc. They are

juggling the view of a PhD as a training in research exercise versus a gate-keeping exercise. So in the end they are setting a requirement that "the work meets at least the standard of independent research competence expected of a training exercise". Sometimes examiners suggest compensating for work of a poorer standard by requiring the student to write a new final chapter in which s/he engages in reflective self-evaluation, a critique of the strengths and weaknesses of her/his own thesis (especially weaknesses) and suggesting how better to address the question or how to reformulate the question.

To summarise:

- Examiners:
 - Expect the student to pass
 - Form strong first impressions of the thesis from their overview or early chapters
 - Are very, very reluctant to fail a student
 - Hold varying views about the purpose of the PhD and whether it is the thesis or the capacity of the student that is being examined

- Examiners' judgements are not critically influenced by...
 - Institutional criteria
 - Other examiners
 - Their own methodological paradigm

- Examiners' judgements are influenced by...
 - Publications
 - Their own experience as supervisors and examiners
 - Knowledge of the supervisor, department, laboratory (but examiners report that they are aware that this may be an unfair bias and they try not to be influenced by this knowledge)

Being an examiner

When you are first invited to examine a thesis, you may well feel a mixture of pride and trepidation: pride because you are now considered an authority in the field, and trepidation because of uncertainty about what standards to apply and how to approach a large task that someone else's future may depend on. Even experienced supervisors agonise over 'difficult' theses and how to assess them.

The following emanated from two recorded conversations of experienced examiners talking on a series of matters facing beginning examiners. In total, these examiners have examined hundreds of theses or dissertations and most of them examine several each year.

Its purpose is to:

- increase supervisors' understanding of the assessment of theses, in particular: the conventions of writing examination reports on theses, the approaches of experienced examiners, and the standards they apply

- improve the quality of examiners' reports
- help supervisors explain to students what examiners are looking for

On being approached to examine (1)

Initially, a particular examiner is approached to examine a thesis based on their expertise in the field or general area of the thesis. Inexperienced examiners often feel apprehensive when first approached to examine a thesis. Often a thesis is not specifically in their field and they may doubt their expertise. However, experienced examiners (who have often supervised many students) are far less concerned. They see that they are being asked for their particular expertise and their general competence in the area. They can tell whether a research thesis is of significance (for a doctorate) and has been competently undertaken and written. It is also the case that two or three examiners are invited to respond and that the university will have the benefit of a range of examiners' reports. It is usual for an examiner to know the candidate's supervisor, at least by reputation. This may influence your decision as to whether you agree to examine the thesis, particularly if the supervisor is well known for high quality work or if they are known to work in a paradigm that is oppositional to yours.

On this last point, it is interesting to note that James Cook University instructs examiners that the research design of the project has been accepted by the candidate's department at a number of check-points during the candidacy and that examiners should not reject a thesis on the basis of the choice of topic or even the methodology.

On being approached to examine (2)

The examination is a measure of the candidate's performance. This can be assessed largely by an examiner with a general knowledge of the field. If you feel particularly uneasy about examining a thesis, there is no alternative but to decline the offer. However, if the topic is towards the edge of your field or in the broad area of your speciality, it can be seen as an opportunity to stay abreast of interesting work that is currently emerging in the field. There are also intrinsic benefits in examining. You are not expected to be a definitive expert on all the theses you might be approached to examine. Despite feeling a little uncomfortable at first, your reading of the thesis will bring a perspective that is both useful and fair.

The external nature of the examination process is critical for quality control. Consequently, the academic community is relied on heavily and encouraged to take part in the examination process. It is a collective responsibility, something that needs to be done for the discipline and the area in general. While experienced examiners feel an obligation to their profession to examine, the complex issues of time and workload can play complicating roles in formulating a decision of whether or not to examine a particular thesis. Current workloads do not always allow sufficient space and time for academics to agree to examine, yet the system depends on it.

In summary, it is good to accept if you can. You should decline: if you are not comfortable that you have sufficient expertise; if you believe that the persons involved or the approach taken mean that you cannot examine in an impartial and disinterested manner; or if you cannot complete the work in the time allowed (usually 2-3 months). You are not paid to examine, but it is normal practice to be offered an honorarium; the amount is normally that advised by the Australian Vice-Chancellors' Committee (AVCC).

Preparing to examine

Experienced examiners report that first impressions are important. Most acquire an overview of the entire thesis with a quick scan of the table of contents, introduction and chapters. The argument of the thesis ideally should be clear from the abstract, introduction and conclusion. Some experienced examiners recommend distancing yourself from your own research experience when preparing to examine. It is often said that new examiners are sometimes too hard on their first thesis examination. They need to recognise that there are two mutually exclusive types of thesis: a perfect one and a completed one!

When preparing to examine, many experienced examiners try to schedule a block of time in their diary free of interruption. This may also include agreeing on a date with the university to attend a performance or see an exhibition, or attend an oral examination. Most examiners take a couple of days to examine a thesis, but it can be much longer for a thesis which is unsatisfactory. A thesis is complex reading and therefore many examiners report that it is very difficult to reach a sense of the entire body of work or 'story' by reading just an hour here and there. Wherever possible, experienced examiners remove themselves from the work environment (usually by working at home) to minimise interruptions such as telephone calls, emails etc. intruding on their concentration. Systematically making notes and comments while you are reading helps you engage with the thesis, ask questions of it and make it a form of active reading. However, it is important to distinguish between a 'style' issue and a 'fundamental' one. Having read the thesis and systematically made notes, experienced examiners often return and attend to any problematic areas in more detail.

Preparatory considerations

The question of the standard to be reached in the thesis, understandably worries beginning examiners (and also beginning supervisors). In this preparatory stage, experienced examiners advise:

- talk about standards and the 'amount' of original contributions required with senior colleagues as a preparation exercise (generally - not discussing the specifics of the actual thesis);
- consider whether the contributions presented in the thesis make a difference in the field (solve a problem, illuminate a difficult matter, change the way people think about an issue etc.);
- consider the significance of questions posed at the beginning and whether they are addressed effectively;
- consider whether the core material is worth publishing.

Examining (1)

Honours, Master and Doctoral theses have different entry and exit points which affect the amount of work and the level that the candidate has undertaken. It is important to appreciate these aspects when examining. Universities often indicate in their guidelines to examiners the nature of their particular programs and what they expect the candidate to demonstrate in their thesis. It is important to examine in these terms, and not in terms of what you think the program and thesis *ought* to have been like. However, some universities provide less explicit advice on criteria than others, and if you have any doubts about what you should be expecting, it would be a good idea to contact the Dean of Graduate Studies (or the equivalent). Some doctoral programs, such as professional doctorates or those from North America, have preliminary work which has previously been assessed. This should be indicated to you in the guidelines provided so you can expect an appropriate size of thesis or dissertation (as doctoral theses are usually called in North America) to examine. It is important to understand that the magnitude of the work you examine for some doctorates may be smaller in comparison with a traditional Australian, UK or New Zealand PhD examination, but the standard (and the status of the doctorate) is usually expected to be the same. Therefore, the quality of the work should be as high as any other doctorate.

In the case of a doctorate, matters of originality and significance of the research and its findings are important. This does not mean that the findings have to be 'earth shattering', but rather that within the field and its context (especially in the case of research done by international students from developing nations in/on their own contexts) it makes a significant contribution. That is, the thesis adds usefully to the stock of knowledge and is worthy in terms of its significance to the field. Most examiners, irrespective of the discipline, like to see a well-written story of the research. That is, a coherent narrative that contextualises the research/scholarship, what was done, why and how, and what the analysis and conclusions/implications are.

Examining (2)

It is important that the candidate illustrates that they have a critical awareness of the literature in the field of their thesis. This is also likely to be the body of literature to which publications from the thesis can be expected to make a contribution. It is important that the candidate also illustrates that they have a critical awareness of the methodological literature for their research design, and a critical awareness of the methods they have selected and used. A good test of whether a thesis is significant is whether it has potentially publishable outcomes. Sometimes whole theses can be revised for publication, but commonly articles and papers are the sorts of outcomes one might expect. It may be that an honours thesis is unlikely to lead to a refereed publication, but at least a conference presentation or publication might be expected. However, if you examine a doctorate and you cannot identify anything worthy or scholarly for a refereed publication, then there may be some difficulty in passing it.

It is not an examiner's job to mark or note every editorial error. Indeed, most universities ask that the examiner's copy of the thesis not be written on ('marked') at all. However, in some disciplines it seems to be conventional to attach a list of 'errata' to the report. If the editorial standard is poor, you should at

least say so and perhaps give some examples. The normal procedure would then be to recommend that before the thesis is passed (if it is in other respects worthy) a full editorial check be undertaken and all fixes be made. Of course, this should have been undertaken before it was submitted.

Making your judgment (1)

When arriving at their judgments of a thesis, experienced examiners find that within the first five pages their judgment will begin being formed. If the first five pages are ‘tight’, with a clear statement of the thesis (argument) and its aims and significance, then they expect it will be at least passable. Then if the literature review validates the argument and the thesis unfolds to be a ‘good read’, they become drawn into the thesis and easily absorbed by it. However, if the opening pages are unclear and poorly structured and expressed, and have several errors, the examiners become disengaged with the story and ‘thrown out’ of it. In these circumstances, a judgement that the thesis will at least require revising is being formed. On the other hand, it is important to try to keep an open mind in case the quality of the writing of a thesis is uneven but the research work is, in fact, acceptable or better. Again, the important matters are the “fundamentals” over the “style”.

Making your judgment (2)

Look for the candidate’s ability to go beyond the formulaic nature of reporting their research and think about the implications of their work more generally. A doctorate can be viewed as the preparation of the candidate to undertake a problem solving exercise and to clearly justify the conclusions they reach. The examiner should, therefore, look for a strong argument that is articulated in different ways, a strong coherence between what the candidate proposes they will do and what they actually do, how the literature relates to their findings, soundness of methodology and whether it was an appropriate way to proceed. It may be that you would have developed the thesis differently or undertaken the research differently. However, the issue is whether the candidate’s approach was defensible as *an* approach. That is, is the thesis justifiable in its own terms?

In judging the thesis it is appropriate to consider the extent to which the literature survey and references are up-to-date. It may be reasonable that the most recent reference in a moving field is a few months old to allow for the time taken in writing, but lack of any references in the last few years would be of concern. When finding that the candidate takes a line with which they disagree, experienced examiners suggest separating matters of fact from matters of interpretation or opinion.

Facts should be correct, but if the data were difficult to obtain and the methodology was sound, some weaknesses in the factual evidence might be accepted (or forgiven) as far as the final outcome is concerned. Interpretation and opinion require objectivity by the examiner—is the interpretation *reasonable*, well argued, etc. Are contrary views (a) considered at all, and (b) dismissed in an acceptable way? It is not uncommon for an examiner to accept a thesis with comments like, ‘I prefer a different interpretation to that of the candidate, but the issue has been handled competently and well argued.’

Making your judgment (3)

Should you discuss the thesis with colleagues? Some experienced examiners are not in favour of theses being passed around for comment. Others see value in checking their judgments with others before they write their reports, particularly if the thesis appears to be marginal. Remember however, that it is your judgement that is sought, not the collective views of a department or tea-room. In determining the extent of, and requirement for, further modification, it is useful to ask yourself the ‘style vs substance’ question. That is, when the thesis is bound and put in the library, is it going to make a big difference if the candidate makes the changes? Are they essential? Are there additional points from which the thesis would benefit? Is there a benefit from encouraging the candidate to think in a different way? Are your suggestions ones that could best be used in subsequent publications or research?

The ultimate aim of the examination process is to *recommend* whether the essence of the thesis is worthy and the substance is appropriate. It is important to note that your judgment is a *recommendation* and, typically, that there will be at least one and maybe two other examiners making their recommendations, too. In effect, you are not passing or failing the candidate: that is the university’s job. However, your recommendation is normally very influential. Sometimes examiners’ recommendations disagree and it is here that the reports become important.

Preparing to write your report

Before writing your report, it is important to read the advice and requirements of the university. Each university has its own specific reporting requirements, although they all tend to have common elements, such as a written report and a recommendation form. It is important to understand that the persons who read your examiner’s report are likely to include people from quite different discipline areas. They are likely to include the chair of a postgraduate research committee or equivalent and—especially if there are contrary examiners’ reports or if the thesis appears to be a failure—some or all of its members. These readers may have to form a judgement, usually with advice from someone within the discipline—such as a head of department, postgraduate research co-ordinator or sometimes the supervisor—as to whether the thesis be revised, re-examined, awarded a lower degree or failed. These people, from all sorts of discipline backgrounds, are likely to be the initial readers and they are the ones who will be really making the decision on the thesis. They need to be able to understand the reasons for your judgment of the thesis which they expect to be supported, logically, by your report. The other important readers are, of course, the candidate and supervisors. In this case, any recommendations you make for changes need to be clear and unambiguous.

It is suggested that a ‘generosity of spirit’ is required towards the candidate who has probably invested a lot of personal energy and time into the project and its writing. Make a clear and explicit distinction between having a commentary in a report where you are explaining your judgement of the work and a further commentary, where you might sound somewhat more critical, about what would be done with that work afterwards in terms of publication and/or further research. For example, ‘The research is competent in this context, but in future publication

the candidate might want to think about this, read this, make stronger links between this and this etc.’

Some experienced examiners recommend taking a break between reading the thesis and writing the report. This allows time to think through the advice you want to provide to the candidate and the university. Others find it more appropriate to write the report immediately after reading the thesis while the ‘story’ is still foremost in their mind.

However, in this instance, examiners do suggest taking a break between sending the final report off in order to re-read and re-craft if necessary. Sometimes examiners send the notes they kept as they read to the candidate to assist with revision for future publication. If you do this, be sure you make it clear that these notes were generated as you read and are for the candidate, not the committee.

Writing your report (1)

Your report needs to alert the candidate to any areas that need to be addressed. Include information to help the candidate subsequently, especially in terms of revisions, if you recommend such. It is worth trying to put yourself in the supervisor’s position and think how you could use your report to guide the candidate in their revisions. In commenting on various aspects that would need to be addressed before publishing material from the thesis, you may even suggest avenues for publication. Write the report in such a way that it is constructive for the candidate for the future. Reinforce/reaffirm the good things that the candidate has done.

Where specific guidance is not provided about the structure of your report, providing a hierarchy of comments may be useful. Commence with a general introduction about your perceptions and feelings about the overall structure, content, presentation and significance of the thesis. Then move through your specific comments, perhaps chapter by chapter. Then conclude with your suggestions for the future. Making your points in this way will be seen less as negative criticism and more as critically constructive comment. Remember to make explicitly positive comments.

Writing your report (2)

As noted above, it is not the job of the examiner to act as ‘proof reader’ identifying grammatical and typographical errors etc. This could be dealt with in a general comment, such as, ‘There are several grammatical and typographical errors that must be addressed throughout these chapters/sections.’ If, however, the errors or written style impact upon the articulation of the argument, or if it is a systemic problem, then these become matters that should be addressed. They indicate a lack of rigour on behalf of the candidate that is unacceptable in research training. If you receive a thesis that seems to be poor in several respects and you wonder why it was forwarded to you for examination by the university, it may be that the candidate submitted their thesis without their supervisor’s approval. Most universities assert the right of the candidate to have their work examined, irrespective of whether the supervisor believes it is worthy or not. This is seen as an important principle although it may mean that some ‘sloppy’ work is submitted for examination.

While theses are generally put in the public domain (eg. copies in the Library) and confidential material will generally be identified (eg. by the examiner being asked to sign a non-disclosure agreement before seeing the thesis), you are not automatically free to use the contents of the thesis after reading it. The candidate needs to be able to publish and gain credit for their work before others use it. At the very least the approval of the author should be sought after the examination is over before the thesis is quoted or the contents used.

How the university will use your report (1)

The reports and recommendations are treated bureaucratically in the first instance by people who will identify any problems arising from the reports. Routine examinations and their outcomes—these typically include unanimous recommendations for passing, minor or major revisions—work through the system to the candidate and back again when any changes have been made and library copies printed and bound. Usually a university will reply at this stage and thank you for the report and state their process for paying the honorarium.

How the university will use your report (2)

For non-routine cases, the examiners' reports and departmental comments are usually brought before a formal meeting of the postgraduate research committee for discussion and consideration. The committee will be procedure-oriented and will not make judgements on technical issues of the thesis. They usually adopt a procedure that will resolve the situation constructively but, if not, in a manner that ensures that the candidate has every reasonable opportunity to defend their thesis. If an examiner makes fundamental criticisms of the work, the candidate needs to be made aware of whether they can work on those areas or not. In this case, the university requires sufficient detail. Insufficient detail may mean the examinations officer has to contact the examiner to clarify the intent and substance of their comments. This can prove difficult if the examiner is unable to recall what their ideas were in the same level of clarity that they felt at the time of the examination and writing their report.

If you have recommended a re-examination you should feel obliged to undertake the reexamination. It is easier for you to do than for a new examiner to become involved. It also removes the possibility of another examiner having different views to you about the thesis and then failing it—usually there are only a pass/fail options for re-examinations.

A final word

Examiners sometimes have quite different views on theses. Research by Kamler and Threadgold (1997) highlighted how one text was interpreted so diversely by examiners that they could have very well been reading different theses. This occurs even more frequently in interdisciplinary work as people cross disciplines and methodologies where the intersections are not necessarily easy. In the UK and US where there are vivas that require examiners to see students face-to-face, the examiner must engage with the students, so negative dismissal of the students' document alone is difficult. Although one likes to think that all examiners are reflective, thoughtful and critically constructive in the way they examine theses, this is not necessarily always the case. The thesis is a text that is open to a variety

of readings depending on who the reader is, their background, their discipline and how they approach the reading. While most examiners try to be as objective and true to the criteria of their discipline as possible, the judgement is not as objective as one might initially expect.

There is need for dialogue and debate about the examination process and about what constitutes a good thesis, both generally and specifically within the candidate's field. Examining theses is normally a solitary activity, but busy as we are, it is worth taking the time to reflect more thoroughly on what constitutes quality examination and what constitutes a quality thesis.

Activity 63

Read the examiners reports below and then answer the following:

Do the reports seem consistent with the recommendations of outcomes?	
Do the examiners agree with each other on important points?	
Will these reports will assist the candidate in any way?	
What do you think is revealed about the examiners' criteria for judging a PhD?	

Report by John Doe

Utopia University

Examination of thesis for degree of Doctor of Philosophy

The examiner is invited to make detailed comments and suggestions on the thesis to be conveyed to the candidate. Supplementary sheets may be attached.

Name of candidate: Mabel Smyth

Thesis Title: Colonialism: Fact and Fiction

Examiner: John Doe

Examiner's appointment: Professor, Utopia University

To survey the complete work of an author, particularly one so often subjected to misinterpretation as A, is a substantial feat. Ms Smyth's enthusiasm for the task and her control of the material never seem to falter. Though long, the dissertation offers a consistent and convincing interpretation of A's work. In particular, it establishes the continuity between the fiction and the non-fiction, frequently showing how an article has provided useful background or stage-setting for a novel. The best chapters seem to me 2, 4 (second half only), 6, 7, 9, 10, and 11. They are the ones that offer the closest study of the text, contain the fewest and shortest summaries of plot, and are most successful in holding in check the candidate's pandemic leisureliness.

What I miss most in the dissertation is close textual analysis to establish the assertions being made. Too often a rewarding insight is suggested, but allowed to slip away without adequate, or sometimes any, demonstration. Even the discussion of A's style on pp93ff is rather generalized, and offers examples that belie the accuracy of asserting that A's later sentence structures exhibit 'complexity'. The exposition of ideas is usually good; the exposition of stylistic questions insecure and derivative. (See, for instance, p183, where B's stylistic comment is quoted but not tested.)

As a history of A's ideas the dissertation is admirably comprehensive. As a critical history it is best in the chapters I have praised earlier. Chapter 2, for instance, is perceptive in its account of A's somewhat slanted view of X, Y and Z. On the other hand, Ms Smyth seems at times beguiled by A's confident style into inattention or uncritical acceptance of what A is actually saying. Four examples from chapter 1, each slightly different, will make the point. On pp18-19 Ms Smyth, as if making a new point, refers to the weariness of parts of A's non-fiction. But in a quotation from A on p16 there is an admission and explanation of this very quality and Ms Smyth has summarized it succinctly. In quotations from A's work made on pp9 and 19, A contradicts herself about the value to a society of heroes, but the contradiction goes unremarked by Ms Smyth. On pp32 and 34 quotations on the subject of A's attitude to Country T's degree of civilization are contradictory, but again the discrepancy goes unremarked. On p35 A's notion that parish-pump politics are somehow unique to Country T is an indication of her own unfamiliarity with the practice of politics and should tell one something about A's fastidious distaste for involvement in practical matters, but Ms Smyth makes no comment. Even after Chapter 2 sets the dissertation off on a much more assured path, inattention can occasionally be detected. On p92, for instance, part of A's review of C's Book is quoted. The quotation ends with a pithy sentence, 'The reader's sympathies are never touched', which was almost exactly echoed by C in regard to A some two years later. Or, to take a different kind of example, it seems perverse to try to correct A's view of history by reference to such an opinionated and tendentious historical writer as R (see p145). These matters, in themselves small, point to a larger fault: weakness in arguing a thesis. Ms Smyth is almost always adequate in description and synopsis - it is only in the first half of chapter 4 that I detect any obfuscation of narrative outline - and sometimes brilliant. But in the construction of an argument she is diffuse and unrigorous. The general case made by the dissertation is more than satisfactorily established by the sheer weight of analysis over the whole of A's oeuvre, but it is all a bit like Christian's progress to the Eternal City - there are many snares and distractions along the way.

Ms Smyth is, in fact, an expansive rather than a concise writer. The dissertation would be improved by substantial cutting - to less than half its length - and even at that length could still accommodate the close textual evidence I have adumbrated. Ms Smyth's comment about A's handling of the Government House dinner party (p187) might aptly be applied to her own dissertation. The leisurely, graceful style - a delight to read - is reminiscent of a more expansive age than our own. It is the unhurried style of the Victorian quarterly.

If I have seemed ungenerous to this dissertation it is because I think Ms Smyth has the makings of a good book. But its features are folded in flabby tissue and need rigorous diet to be revealed in their true form. The view of A's work is sympathetic and well supported by acquaintance with almost all of A's work in the context of other regional literatures. Had this been a scholarly rather than a critical dissertation, it would have been necessary to track down the unpublished material, but with this exception the coverage is thorough and sound.

The dissertation is admirably free of literal errors. The following corrections might, however, be made:

P103, ll3-4 remove second 'in 1967'

P255, ll 'Lost' for 'Last'

P308, 4th last line 'deities' for 'dieties'

2 October 1990

Report by Jane Smith

Brainiac University

Examination of thesis for degree of Doctor of Philosophy

The examiner is invited to make detailed comments and suggestions on the thesis to be conveyed to the candidate. Supplementary sheets may be attached.

Name of candidate: Mabel Smyth
Thesis Title: Colonialism: Fact and Fiction
Examiner: Jane Smith
Examiner's appointment: Professor, Brainiac University

The thesis is in general a comprehensive, careful, balanced and well-arranged study of A. A major benefit that derives from the bringing-together of A's non-fiction and fiction is that one becomes aware of just how sustained and central to her work has been A's concern with the nature and effects of colonialism. This aspect could well have been better highlighted in the title of the thesis. If the candidate considers publishing the thesis as a whole, I would suggest that it be "tightened" by way of concentrating on this pervasive theme of colonialism. If publication of individual chapters is considered, I would suggest that the most valuable/ original/ stimulating are Chapters 4, 8, 10, and 12.

Specific points and parts of the thesis which I particularly liked include:

- 1) the interpretation of Book E in terms of Religion Y;
 - 2) the drawing of parallels between Book G and Book Z;
 - 3) the comment on the absence of any official record of Character J's presence on the island in Book H;
 - 4) the connection between Character J's sexuality and her (lack of) sense of self;
 - 5) the elucidation of A's growing disenchantment with the idea of "knowing the truth of history"
- Granted that one of the two major aims of the research was 'to discover the ways in which the nonfiction has inspired and shaped A's novels and stories,' (piii) it seemed a pity that the relation between non-fiction and fiction was examined only as a one-way relationship, the "influences" seen as moving only from non-fiction to fiction. It could have been fascinating and instructive to examine how "influences" also move in the opposite direction, and how A's fictive imagination shapes and colours the way she receives and shapes the "facts" which the non-fiction presents. (This kind of examination is briefly undertaken in, for example, X's essay on Book K in a recent issue of Journal Q.) If Book H is seen as shaped by Article C inasmuch as the former follows the latter in sequence of composition, might not Book K be even more interestingly, if less obviously, "shaped" by Book F? To examine the possibility that influence also moves in the fiction-to-non-fiction direction might also have complicated the question of how and to what extent the non-fiction "inspires and shapes" the fiction. For instance, is it so much that Book H is "inspired and shaped" by Article C as that both are parallel products of the same experience and imagination? Of course, Book H (like Book I to a lesser extent) provides an "acid test" on this question of the influence of the non-fiction on the fiction, since Article C appears to be virtually a blue-print for the novel. However, the commentary on Book H confirmed a feeling I got from the thesis as a whole – that a little too much had been expected from the idea of the non-fiction as "influence" on the fiction. What is actually said by way of specific comparisons between Book H and Article C does not seem to justify the insistence, at various points in the chapter, on the importance of an examination of Article C to an appreciation of the novel. The candidate says that A's non-fiction reveals that the roots of her fiction lie in reality (p352). However, we do not need Article C to know this about Book H. Besides, the "reality" in question includes, no doubt, A's interpretation of events. Again, in what sense do the roots of any serious fiction not lie in "reality"? The specific connections made between Article C and Book H remain more or less at the level of a simple indication of parallels, or of fairly obvious ways in which fictive technique normally differs from journalistic technique (e.g. the greater use made by A the novelist of description of landscape to create mood and symbolically embody meaning). Incidentally, the reservations about Book H expressed at the end of the chapter on that novel seem at odds with the main body of the commentary. The commentary, which seemed to be "justifying" the novel and appreciating it with comparative warmth, did not prepare me to expect the charge of "a hollow achievement" (p374) at the end.

While the thesis is informed by a sound and comprehensive awareness of the critical controversies generated by A's work, and while it takes a generally reasonable and sensitive approach towards them, there was a tendency to treat some of them evasively or cursorily. For example, the candidate gives a clear, useful summary of W's general criticism of A, but she does not really "take on" the issue. She merely insures that she does not step on any toes by saying that she has found "W's views on A extremely useful, etc" (p11). Besides, the statement which introduces the topic of W's view of A is not an adequate excuse for or defence of A: "choosing to base his fiction

on fact and to make essentially uncomplicated metaphors out of reality, A exposes herself to another criticism." (p10) In the early chapters, the candidate perceptively indicates how A's work shows her awareness of the importance of language in the colonial dilemma. However, the candidate shies away from examining A's implicit attitude/opinions on this question, as may be contained, for example, in Character B's outburst in Book J. Can we assume that A's view is quite the same as that of S quoted in Appendix 3?

On p63 the candidate raises an interesting question, and a very important one, I think, relative to A's "remarkable shift in viewpoint" vis-à-vis Country I, and says that the shift can "be seen either as an uncharacteristic lapse in memory or as further evidence of the duality of experience, the two (or more) truths possible in any explanation of reality." When one puts beside the latter suggestion the candidate's perception of A's growing doubt as to "whether the study of history can possibly reveal truth" (p388), one wonders whether these perceptions might not have been illuminatingly applied to those books in which A seems to be sure as to what truth history reveals. After all, this is a thesis which is very much concerned with presenting A as truth-teller, a writer who sees it as her business "to set the record straight".

7 December 1990

Report by Robert Catt

Commonwealth University

Examination of thesis for degree of Doctor of Philosophy

The examiner is invited to make detailed comments and suggestions on the thesis to be conveyed to the candidate. Supplementary sheets may be attached.

Name of candidate: Mabel Smyth

Thesis Title: Colonialism: Fact and Fiction

Examiner: Robert Catt

Examiner's appointment: Professor, University of the Commonwealth

If the thesis is to be revised for publication, particularly if it is to be made into a book, I think the following kinds of revision would greatly improve it.

1) Mrs Smyth would have done better to have focused more sharply on the relationships between the fiction and the non-fiction, rather than diffusing her attention over the work-by-work account which gives her thesis its great bulk, and covers much (by now) rather familiar ground.

2) The separation into two distinct sections seems to me a mistake, and has blurred the picture of A's development, particularly the growth of compassion and of political concern between Book E and Book G, and the consequent darkening of the latest novels. I suggest one complex critical 'story' sectionalized if necessary by period, and concentrating on the subject of the relationship of fiction and non-fiction.

3) Moreover, although there are fascinating hints scattered in the thesis, of how a distrust of the imagination's tendency to fantasy might explain a deep need to relate fiction to the "real world"; these are never brought together into a discussion of why non-fiction should play so crucial a role in the development of A's novelistic imagination, of (conversely) of how her non-fiction draws on the novelist's imagination. A's concern with 'history' should be a major theme.

4) I wish A had been put more often into the context of her contemporaries or affinities. One particularly misses the context of other regional writing for the first period; of the peculiar outburst of fictions of role in Region B in the sixties; and of critical attention to the comparative elements in the latest work, which might have helped the distinction between the thematic gloom and the novelistic elan, for which Mrs Smyth has been reaching.

5) Though the 'colonial' themes are well to the fore, as they should be, I thought that Mrs Smyth neglected the more "existential" - for lack of a better shorthand - A of the "abyss", which is at least as important from Book D onwards, and which regional critics have tended to miss.

6) Most important of all, she neglects A's subtleties of form, most particularly with Books A, D, G (limiting an otherwise excellent chapter), and above all Book F. She is not alone in this, but it is a great pity in a thesis that has so much intrinsically to do with relations between differing kinds and tendencies of imagination in the same author. I hope the following brief comments on individual chapters may prove useful.

Chapter One: More attention to the tone and style of the book and the contrast with other regional writers?

Chapter Two: How does the idea of Book F begin to form also in Book L (although it is Book E that is being written). What is the process of Book L, its development? What are the imaginative differences between the two books on Country I, and what the political?

Chapter Three: Interesting chapter marred by insufficient attention to A's development, so it came to seem miscellaneous. One became aware, as with the previous chapter, of what was being lost by structurally dividing non-fiction from fiction, instead of tracing the whole development in one complex critical 'story'.

Chapter Four: Good chapter. Something on the "sub-test" growth of feeling for the slave and indigene? More on the novelist's imagination used historically?

Chapter Five: A's first use of the stories/novel. Formal advantages? The development of the narrator is neglected.

Chapter Six: What about the techniques of A's comedy?

Chapter Seven: Why two books? Why Prologue and Epilogue? Relation between 'history' and 'myth' (i.e. vision of an underlying abyss beneath the surface of "reality").

Chapter Eight: Interesting chapter. Needs to point up the universalising mythical emphasis: (the change between Book D and Book F), and pay slightly more subtle attention to the end, which is not infused with Religion

Y. (A tension at the end of Book L?)

Chapter Nine: Ruined by the absence of attention to the whole form of the book, the three different kinds of imagination in the three 'books' 'Myth' and 'History' now? How criticised by the final section of the novel?

Chapter Ten: Amongst the best, yet again doesn't consider the form (cf. Book A) or process. How does one read the title story differently because one has read the others? How does one measure the difference between the first journal entry and the final one in imaginative terms?

Chapter Eleven: Interesting chapter. But is A's novel, dark as it may be, either wholly gloomy (its art?) or lacking in imaginative compassion?

Chapter Twelve: Might Author C help one plot the essential space between A and Character S?

7 April 1991

Activity 64

Go back to the reports and answer the following questions:
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Is one examiner unduly hard? Why/why not?	
Is there anything the supervisor could/should have done to avoid the criticisms in the poor report?	
Would you pass this student? What recommendations for revision would you make?	
What options do you think you might have to resolve the conflict in these reports?	

In rare cases, one examiner may disagree strongly with the recommendations of the other two. In this case, the opinion of a third examiner was sought. The third examiner recommended pass with no further revisions. Under normal circumstances, a majority decision would have been adopted (pass with no revisions), but in this case the RDC recommended that some revisions along the lines outlined in the detailed report by the dissenting examiner should be made, given that the two positive reports were both very brief.

The student was granted a PhD in February 2002 after making some revisions.

Some useful reading on examination

Australian Vice-Chancellors' Committee (1994) *Examination procedures for higher degree theses*, Canberra: The Committee.

Buckridge M (2001). How Strait the Gates? PhD examination, practice and principle. Paper presented to the conference of the Higher Education Research and Development Society of Australasia, Newcastle, July 2001.

de Vries P (1999). What Skulks Behind the Criteria? A study of dissertation assessment in four social science departments.

The study comprised an analysis of comments on the marksheets which the assessors were required to complete when marking social science dissertations for the BA (hons.) degree. The content analysis revealed that assessors were bringing a number of different values to bear on the assessment process which were related to academic standards, their disciplines, the world of work, etc. The comments reveal a potential conflict of interest in the minds of assessors which could have affected the validity of the judgements they made of the worth of the students' work.

Jackson, C. & Tinkler, P. (2000) 'The PhD examination: an exercise in community building and gatekeeping?' In McNay, I. (ed.) *Higher education and its communities*, SRHE and Open University Press, pp.38-50.

Jackson, C. & Tinkler, P. (2001) 'Back to basics: a consideration of the purposes of the PhD viva', *Assessment and Evaluation in Higher Education*, 26(4), pp.355-366.

Hansford, B.C. & Maxwell, T.W. (1993) 'A masters degree program: structural components and examiners' comments.' *Higher Education Research and Development*, 12(2), pp. 171-187.

Johnston S (1997). Examining the examiners: an analysis of examiners' reports on doctoral theses, *Studies in Higher Education*, 22 (3) 333-47.

There are variations in the format, recommendations and interpretation of recommendations among reports studied. Editorial aspects of theses considered important. Reader-friendliness a key factor in wooing examiners.

Kamler, B. and Threadgold, T. (1997) 'Which Thesis Did You Read?', *Policy and Practice of Tertiary Literacy*, pp. 42-58, Victoria University of Technology, Melbourne.

Kiley M & Mullins G (2001). 'It's a PhD, not a Nobel Prize': How experienced examiners assess research theses. Paper presented to the meeting of Deans and Directors of Graduate Studies, Fremantle, 11 May 2001.

An account of this research is soon to appear in Studies in Higher Education.

Morley L, Leonard D and David M (2002) Variation in Vivas: quality and equality in British PhD assessment, *Studies in Higher Education*, Vol. 27, No. 3.

Nightingale P (1984). Examination of postgraduate theses, *Higher Education Research and Development* 3 (2) 137-52.

Report of analysis of many examiners' reports and discussion of the examination process. Interesting to compare to Johnston's later study - not much difference between the two.

Sloboda, A. & Newstead, S.E. (1997) 'Guidelines for PhD examiners: an evaluation of impact'. *Psychologist* 10(9), pp. 407-410.

Tinkler Penny and Jackson Carolyn (2000) Examining the Doctorate: Institutional Policy and the PhD Examination Process in Britain, *Studies in Higher Education*, 0307-5079, June 1, Vol. 25, Issue 2.

Wright T & Cochrane R (2000). Factors influencing successful submission of PhD theses, *Studies in Higher Education*, 25 (2) 181-95.

DEVELOPING STUDENTS' EMPLOYABILITY AND CAREER POTENTIAL

Objectives

- To raise awareness about the need for continued professional development and lifelong learning
- To help devise strategies for managing career progression and ways of enhancing employability
- To learn about writing effective CVs and applications
- To develop skills for success in job interviews

Content

- What is a lifelong learner
- The contemporary knowledge economy
- Employability attributes
- ATN LEAP
- Findings from research on career employability & progression

Resources

Some supervisors do not feel career guidance is part of the role of the supervisor. you will also need to interview your students to find out their career aspirations and put together some ideas for ways you can help them.

Activity 65

Why are your students doing a research degree? What are they hoping for when they graduate? Interview each of your students and fill in this table.

Student	Reason for doing research degree	Career goals

RMIT research student population as at 31/08/02
Population = 1637

Gender	Female	41%	Research program	
	Male	59%		
Mode	Part-time	59%	Professional Doctorate	6%
	Full-time	41%	Masters	44%
Age group	29 or under	25%	The research is done by	
	30-39	30%		
	40-49	28%	Project	26%
	50 or over	17%		

As the table above indicates research students at RMIT are a diverse bunch. Once upon a time, a PhD student would invariably be young, male, full-time, white and middle-class (eg Denicolo & Pope 1994). At RMIT in 2002, only 41% of all research students are full time, and at least 45% are over 35.

Research students at RMIT are obviously not all at the beginning of their careers. More and more postgraduate students are professional people returning to university mid-career to upgrade their qualifications. This changing demographic is reflected in the diversification of career goals and employment outcomes of research students. Pearson (2000) identifies a number of reasons research students embark on higher degrees:

- to gain employment in industry and government in management and policy positions;
- to become academics (although in 1995, only 44% of research graduates were employed as academics or researchers);
- to change career;
- to consolidate expertise; and
- to establish a reflective practice in their profession.

For more on part-time research degree students in full-time professional work see: Robyn Barnacle (2003) Research Graduates at Work, Research Training Group, RMIT

<http://mams.rmit.edu.au/3gmutarf6nyn.pdf>

Activity 66

What are you currently doing to help your students towards their career goals? Write down all the strategies you use. Are these strategies appropriate for your students' stated goals? For example, if your student is doing a PhD because s/he wants to get promoted in a government position, are your strategies likely to help?

Student	Degree	Strategy	Useful for which career goals?

Activity 67 Graduate destinations for RMIT research degree students

Examine the data in the tables below and list some of significant features that strike you

1. Employment status

All respondents	Working FT	Working PT, not seeking FT	working PT, seeking FT	Not working, seeking FT	Not working, seeking PT only	Unavailable / unknown	FT study
2002	65%	10%	6%	8%	N/A	1%	11%
2001	72%	11%	1%	3%	0%	6%	13%

2. Median pre-tax annual salary

All respondents	Business	Constructed Environment	Education, Language etal	Art, Design & Communication	Life Sciences	Engineering	Applied Science
2002	\$60,000	\$46,500	\$64,500	\$31,700	\$48,400	\$70,500	\$53,068
2001	\$83,000	\$58,500	\$54,000	\$34,750	\$45,000	\$50,000	\$55,000

3. Of graduates in F/T work, is this your first F/T job (other than vacation work)?

All respondents	Yes	No	Missing
2002	20%	54%	26%
2001	17%	70%	13%

Significant features

Networking

No matter whether students wish to work in academia, Government or private enterprise, their prospects of getting a job will be enhanced with contacts. You can take advantage of both formal and informal opportunities for your student, including:

- Sending them to conferences to present or just to listen and meet people
- Inviting visiting scholars to present seminars, conduct workshops and interact with students
- Getting your student to present seminars both within the department and outside in the
- Sending your student on workshops or short courses (inter-disciplinary, inter-University)
- Sending your student on visits to other departments, laboratories, institutions
- Encouraging your student to publish during candidature (in both peer-refereed journals and in the popular press)
- Encouraging your student to seek feedback from people other than their supervisor(s)
- Facilitating engagement of your student with your own contacts.

Generic skills development

Generic skills are normally defined as skills which can be applied across a variety of subject or discipline domains. They are sometimes also called transferable skills – skills which can be transferred and applied to contexts other than those in which they were originally developed.

Whilst the creation of new knowledge is still a significant outcome of the research process, it is no longer its only valued outcome. Increasingly:

- The production of new knowledge takes place in a context of open engagement with the broader environment of stakeholders.
- New knowledge is produced in many sites other than the university
- The workplace demands knowledge workers who have a broader skill set

Not all HDRs will wish to pursue academic careers on graduation. Nor might they be able to pursue careers related to their area of research. There are clear advantages for graduates who have developed specific and general research skills as well as transferable generic skills. Our surveys and the uptake of the ATN LEAP modules, show that our research students want to develop a range of skills and appreciate that which we do offer.

Broadly based training that includes generic skill development should enable graduates to think through how they can use their existing knowledge and skills in different contexts and apply them to a variety of problems. It is important therefore to provide research training which integrates these. Training should consist of a balance between discipline/research area specific and more generic training.

Higher degree students pursue their research in a world where there is intense competition for positions both in and outside the university environment. Employers are telling the government what skills they expect of the research graduates taking up jobs with them – and the deficits they have noted among previous employees. The Federal government has responded with policy recommendations that exhort universities to find ways to assist students in gaining these skills.

Generic skills may be present on commencement, explicitly taught, or developed during the course of the research. Different support mechanisms may be used to support learning as appropriate: for example self-direction, supervisor support and mentoring, departmental support, workshops, conferences, elective training courses, formally assessed courses and informal opportunities.

Some of these skills are developed through the research process itself. In the case of the part-time cohort, students will have already developed many of these skills through their work and may not require further development. However many may not and it is therefore necessary that skill development in these areas should be structured into a student's research program. One way of doing this is to make skill development explicitly part of a research methods course. It then becomes an integral part of a student's program which can be taught and assessed and is likely not to be perceived as a burdensome extra. Other skill development activities eg related to employability and career development can be offered at a later stage in the program.

However making adequate provision for generic /transferable skills is not simply a matter of changing the curriculum. It also requires a change in mind-set on the part of academics. Specifically, a change in how a research degree is perceived and what its outcomes are meant to be. The landscape of university research is changing. The configuration of research and its orientation to its environment is undergoing a paradigm shift from discovery to utility. Also deeper shifts in the organisational and epistemological bases of research are at work. The academic model is being replaced by one characterised by regulation, accountability, contracts and the decline of autonomy. It is organised on market principles. It depends on funding linked to success in competition for grants; it is premised on customer-contractor arrangements.

Thus no longer is the creation of new knowledge the very purpose of the research process. It's no longer a closed intellectual endeavour confined to the self-referential world of the academy. Increasingly the production of new knowledge takes place in a context of open engagement with the broader environment of stakeholders.

Given this changing landscape, it cannot be expected that the research degree will remain unchanged. The nature and purpose of research degrees needs to be rethought to ensure its congruence with the changing landscape. Certainly, we need to continue to ensure that HDRs graduate as experts in their chosen field and with the capacity to be independent researchers. However it is also necessary to ensure that they graduate with a broader skill set and the development of such a skill set is now an explicit part of the research training offered to students.

Activity 68

GENERIC SKILLS -- SUPERVISORS SURVEY

Generic skill	Which do you think your current students possess?	Which do you think your students lack or need to develop further?	Which are likely to be seen as most significant by your current students?	Which are likely to be considered most significant by employers?	Which are of most significance to you as a supervisor?
Written skills					
Project management					
Electronic communication skills					
Environmental awareness					
Critical thinking					
Problem solving					
Independent learning					
Information management					
Teamworking					
Cultural awareness					
Social responsibility					
Working ethically					
Reflecting on learning					
Adapting knowledge to new situations					
Creativity					

There are many views about what these skills are and how programs should help to develop these. Below is one possible list of such skills:

- *Problem-solving and critical thinking*
 1. Recognising, validating and resolving problems
 2. Ability to critically analyse and evaluate one's findings and those of others

- *Research Management*
 1. project management -- setting of research goals, intermediate milestones, prioritisation of activities and time management
 2. acquisition and collation of information through the effective use of appropriate resources and equipment
 3. use information technology appropriately for database management, recording and presenting information

- *Personal Effectiveness*
 1. knows how to acquire knowledge
 2. is creative, innovative and original in approach to research
 3. is flexible and open-minded
 4. is self-aware and able to identify own learning needs
 5. has self-discipline, motivation, and thoroughness
 6. can take initiative, work independently and be self-reliant
 7. has confidence
 8. would know how to do further research

- *Communication Skills*
 1. writes clearly and in a style appropriate to purpose,
 2. can construct coherent arguments and articulate ideas clearly to a range of audiences, formally and informally through a variety of techniques
 3. can constructively defend research outcomes
 4. is able to effectively support the learning of others

- *Networking and Teamworking*
 1. can develop and maintain co-operative networks and working relationships
 2. understands own behaviours and their impact on others when working in and contributing to the success of formal and informal teams
 3. is able to listen, give and receive feedback and to respond perceptively to others

- *Career Management*
 1. appreciates the need for and shows commitment to continued professional development
 2. takes ownership for and manage own career progression, sets realistic and achievable career goals, and identifies and develops ways to improve employability and the range of career opportunities within and outside academia
 3. demonstrates insight into the transferable nature of research skills to other work environments
 4. is able to present own skills, personal attributes and experiences through effective CVs, applications and in interviews

In summary, these are most of the commonly accepted generic skills:

- Problem solving
- Critical thinking

- Project management
- Knowledge management
- IT skills

- Knowledge acquisition
- Creativity
- Flexibility
- Self-awareness
- Self-discipline
- Working independently
- Confidence
- Able to do further research

- Writing skills
- Presentation skills
- Able to communicate outcomes
- Can facilitate the learning of others

- Effective interactions
- Interpersonal skills
- Listening/ feedback skills

- Commitment to lifelong learning
- Self responsibility
- Can transfer skills learnt in research program to other contexts
- Career progression skills

Activity 69

**EVALUATING YOUR SKILL DEVELOPMENT
SELF-DIAGNOSTIC CHECKLIST**

- ❑ This checklist is designed to help you assess your capabilities as a researcher. It is based on the idea that there are a range of capabilities and their associated competencies which are not only necessary to be an effective researcher but are also skills useful outside the academic research environment.
- ❑ Think about each competency statement and rate your current level of performance. Write down the best example of you demonstrating this competency. Then think about ways in which you can improve.
- ❑ When you have completed the checklist you will be in a better position to diagnose your strengths and weaknesses.
- ❑ You can then ask your student to complete the checklist and compare outcomes.

Competences	Rating <i>Always 1</i> <i>Sometimes 2</i> <i>Hardly ever 3</i> <i>Not applicable 4</i>	Best current example	Ways to improve
I can recognise and validate problems			
I can set measurable research goals			
I can develop effective project plans and prioritise tasks			
I can generate creative solutions to problems			
I have an effective approach to the management of my research project			
I am open minded to new ideas			

I am confident about my ability to learn			
I am committed to continuing to learn			
I have a good working relationship with my supervisor			
I have a good working relationship with my fellow students			
I network well within my wider research community			
I present a positive image of myself			
I present a positive image of my department/school			
I can exchange accurate and relevant information effectively through a variety of techniques and media			
I can present and defend my work to my research community			
I am able to contribute to seminars, colloquia and conferences			
I can communicate the value of my value to relevant publics			

Supervisors are expected to provide information on whether a list of skills, including generic skills have been achieved. Examiners are also asked to provide this information. See:

Thesis capabilities

<http://mams.rmit.edu.au/98h0ckszrkgyz.pdf>

Project capabilities

<http://mams.rmit.edu.au/ynh0gm0vmagyzy.pdf>

ATN LEAP

RMIT is one of the [Australian Technology Network](#) universities, which have banded together to develop the [Learning Employment Aptitudes Program \(ATN-LEAP\)](#).

The program provides six online, self-paced modules for postgraduate research students and their supervisors that cover those skills areas identified by the Federal government.

Read a [message from the Deans/Directors of Postgraduate Research](#) at the ATN universities for more background on the program and its benefits for you as a supervisor and your students.

Modules offered are:

- Leadership and communication,
- Project management,
- Commercialisation,
- Public policy,
- Entrepreneurship.
- Global Sustainability

You can assist your students in their quest for a career and employability after completion of their research degree by encouraging and supporting them to participate in the [ATN-LEAP training modules](#).

Enhancing the student's employability

Following is what needs to be done to construct a resume that is likely to lead to success in getting a job. You can discuss it with your student(s):

Constructing a Resume

In today's competitive employment market, your resume has to stand out in order to get the attention of the decision maker and create a strong impression. And later on, when you meet the prospective employer face to face, a strong resume will act as a valuable tool during the interview process.

The best way to prepare a dynamite resume is NOT to change the facts - - just make them more presentable. This can be accomplished in two ways:

- by strengthening the content of your resume;
- by enhancing its appearance.

Keep in mind, accomplishments are the primary key to your resume, interview and ultimate job offer. Your ability to show what you have done and what you can do for a prospective employer determines his interest in hiring you over someone else.

Remember, your resume is written for the employer, not for you. Its main purpose, once in the hands of the reader, is to answer the following questions:

- How do you present yourself to others?
- What have you done in the past?
- What are you likely to accomplish in the future?

To help you construct a better, more powerful resume, here are ten overall considerations in regard to your resume's content and presentation:

1) *Position title and job description.*

Provide your title, plus a detailed explanation of your daily activities and measurable results. Since job titles are often misleading or their function may vary from one company to another, your resume should tell the reader exactly what you've done

2) *Clarity of dates and place.*

Document your work history accurately. Don't leave the reader guessing where you were employed, or for how long. If you've had overlapping jobs, find a way to pull them apart on paper, or eliminate mentioning one, to avoid confusion.

3) *Detail.*

Specify some of the more technical, or involved aspects of your past work or education. Have you performed tasks of any complexity, or significance? If so, don't be shy; give a one or two sentence description.

4) *Proportion.*

Give appropriate attention to jobs or educational credentials according to their length, or importance to the reader. For example, if you wish to be considered for a position at a bank, don't write one paragraph describing your current job as a loan officer, followed by three paragraphs about your high school summer job as a lifeguard.

5) *Relevancy.*

Confine your curriculum vitae to which is job related or clearly demonstrates a pattern of success. For example, nobody really cares that your hobby is spear fishing, or that you weigh 137 pounds, or that you belong to an activist youth group. Concentrate on the subject matter that addresses the needs of the employer.

6) *Explicitness.*

Leave nothing to the imagination. Don't assume the resume reader knows, for example, that RMIT is in southern Victoria, or that an "M.M" is a Master of Music degree, or that your current employer, Australian Computer Systems Inc., supplies the fast food industry with order-taker headsets.

7) *Length.*

Feel comfortable with the length of your resume being from one to three pages, depending on your experience. The important goal is to tell your story powerfully and effectively. If it takes up to three pages to tell your story, that is acceptable.

Anything over three pages is not. The reader of your resume will tend to lose interest if they are forced to read anything longer than three pages. Regardless of your years of experience, if your content is strong, you won't need more than two or three pages.

8) *Spelling, grammar and punctuation.*

Create an error-free document which is representative of an educated person. If you're unsure about the correctness of your writing (or if English is your second language), consult a professional writer or copy editor. At the very least, use a spell-check program if you have access to a word processor, and always proofread what you have written.

9) *Readability.*

Organize your thoughts in a clear, concise manner. Avoid writing in a style that's either fragmented or long-winded. No resume ever won a Nobel Prize for literature; however, an unreadable resume will virtually assure you of a starting at the back of the line.

10) *Overall appearance and presentation.*

Select the proper visual format, type style, and stationary. Resume readers have become used to a customary and predictable format. If you deviated too much, or your resume takes too much effort to read, it'll probably end up in the trash, even if you have a terrific background.

Selling yourself in an interview

A typical interview may take from only thirty minutes to an hour, yet it could determine your career for years to come. Obviously, therefore, it's well worth taking the time to prepare for the interview so that your confidence will be increased and you'll be able to make the most of your qualifications.

Your primary objective, of course, is to convince the interviewer that you are the most qualified candidate. You need to "sell" your experience, qualifications and ability.

Bear in mind that all of us are selling all the time. Every day of your life you are selling your views and ideas to your family, friends and business associates. Every time you persuade your colleagues to use your ideas or solutions to a problem you use your selling skills. All you need is a basic sales strategy that anyone can use:

Find out what the prospect (the interviewer) really needs; Then package your product (your experience, qualifications, ability) to meet those needs.

This sales approach involves more than simply listing the virtues of your product (which you really do when you prepare your resume). It means that you must evaluate all of your past responsibilities and accomplishments in terms of the position to be filled.

To use this strategy effectively for your interview, you need some advance preparation:

1. Research the company or organisation
2. Review your experience and your qualifications
3. Review your resume to be sure that it emphasizes the experience and qualifications most pertinent to the needs of your potential employer.

Material from Executive Resource Solutions (ERS) is a client driven national search and recruiting firm located in the USA <http://www.erscentral.com>

Interviews

Information about the company or organization can be obtained by talking with the person scheduling your interview.

- Ask about the interview process.
- Ask for a written job description. This will be very helpful when trying to identify specific skills on which to focus.
- Ask a current employee what personality traits are most useful when working for this company.
- Who are the business's customers?
- What products or services are offered to customers?
- What is management's philosophy?

The list goes on and on. The more you know, the better prepared you will be at the interview. Other sources of information include: company brochures, annual business reports, trade periodicals, manufacturers' guides, union representatives, school placement and state employment offices, the Chamber of Commerce, and professional organizations.

At interview you should be mindful of the following:

Communicate Your Best Image

- Dress appropriately; select clothing appropriate to the job for which you are interviewing.
- Arrive on time for the interview. Plan your schedule and route so you arrive 10 to 15 minutes prior to the appointment time.
- Fill out applications, neatly and completely. Make sure there are no spelling errors.
- Bring extra copies of your resumes.
- Bring letter(s) of recommendation, reference list, copies of licenses, driving record, transcripts, etc.
- Have with you any other documentation supporting your qualifications (e.g., portfolio, work samples, etc.).

- ***Send Good Signals***

- Non-verbal, e.g., smile, posture, dress, walk, energy and eye-contact.
- Use a natural greeting, shake hands firmly but only if a hand is offered to you first.
- Show reserved confidence. Let the interviewer start the dialogue. Listen carefully. Have good questions prepared before the interview.
- Ask thoughtful questions to find out if the company's philosophy is compatible with yours. Discover if the job is right for you.

Communicate Attitudes

- You are willing to work. Give examples of your productivity on past jobs.
- You are committed to learning. Demonstrate this through examples of learning experiences (e.g., independent study, professional development, education, workshops, etc.). Your plan for future development also communicates your commitment to learning.
- You are flexible. Employers want employees who can adjust, work well with others and fit into a new environment without complaints or special requests. Tell a story from your experience that illustrates your flexibility.
- You expect to make a contribution. Emphasize what you can do for the company.
- Tell the employer about your skills. If you don't, no one else will! Don't make the employer work harder than you during the interview.

Handle Difficult Questions

- Welcome all questions with a smile.
- Give direct, honest answers. Take your time. Develop the answer in your head before you respond. If you don't understand a question, ask for it to be repeated or clarified. You don't have to rush, but don't be indecisive.
- Ask questions in return.
- Be prepared.

Finish Strong

- Take the initiative - demonstrate your interest by asking when the position will be filled.
- Summarize why you are qualified. This is the time to state strengths/qualities you may have forgotten to emphasize earlier. Mention a particular accomplishment or activity that fits the job.
- If you want the job, say so!
- Don't overstay your time.
- Ask what the next step is in the hiring process. Will there be additional interviews? When do you plan to make your decision?
- Be proactive in your follow-up. Schedule the next interview. Arrange to call the employer to learn their decision.

Follow-up

- Send thank you letters or notes to each person with whom you interviewed (see page 66 for more information on thank you letters and notes).
- Record your follow-up plans. Write the date and time for your next contact with the employer. Be sure you follow through on these plans.
- Evaluate the interview. What went well in the interview? How can you improve?

Every interview is a learning experience. Use each interview as a building block for the next one. You may go through many before you connect with the right job! It is not what happened at the last interview that is important, but what happens at this one!

Material from [Creative Job Search: On-line Job Search Guide](#)

Some useful online resources:

<http://amby.com/worksite/cjs/cjsbook/contents.htm>

Australian Careers Directory:

<http://www.myfuture.edu.au/>

Jobfit assessment:

<http://www.improvenow.com/Assessments/CRG/jobfit/>

Identify your job skills:

<http://www.careerkey.org/english/>

<http://www.careersonline.com.au/disc/decisions.html>

Job hunting and career changing:

<http://www.jobhuntersbible.com/>

RMIT resources:

<http://www.rmit.edu.au/careers>

Career Resource Centre:

<http://www.rmit.edu.au/browse;ID=pnlb4lonnadlz>

Some useful reading on skills and employability

Denicolo & Pope (1994) The postgraduate's journey - an interplay of roles. Chapter 10 in Zuber-Skerritt O & Y Ryan (eds) *Quality in Postgraduate Education* Kogan Page, London

Pearson M (2000) Flexible postgraduate research supervision in an open system pp 103-118 in Kiley M & G Mullins (eds) *Proceedings of the 2000 Quality in Postgraduate Research Conference*, Adelaide